

POSSESSIVE CONSTRUCTIONS
IN
MODERN LOW SAXON

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MASTER OF ARTS

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I certify that I have read this thesis and that, in my opinion, it is fully adequate in scope and quality as a thesis for the degree of Master of Arts.

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Abstract

This thesis is a study of nominal possessive constructions in modern Low Saxon, a West Germanic language which is closely related to Dutch, Frisian, and German. After identifying the possessive constructions in current use in modern Low Saxon, I give a formal syntactic analysis of the four most common possessive constructions within the framework of Lexical Functional Grammar in the first part of this thesis. The four constructions that I will analyze in detail include a pronominal possessive construction with a possessive pronoun used as a determiner of the head noun, another pronominal construction that resembles the English s-possessive, a linker construction in which a possessive pronoun occurs as a possessive marker in between a pronominal possessor phrase and the head noun, and a postnominal construction that involves the preposition *van/von/vun* and is largely parallel to the English *of*-possessive.

In the second part of this thesis, I report the results of a corpus study on the range of use of the four possessive constructions analyzed in the first part. I show that the four constructions constitute a case of syntactic alternation and try to determine the prototypical contexts in which they are used. I sample a reasonable number of instances of each of the four constructions and annotate them with information about morphosyntactic, semantic, and functional factors in order to obtain an objective picture of the typical uses of the four constructions.

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Chapter 1

Introduction

1.1 Aims and Goals

The goal of this thesis is to give a comprehensive description and analysis of nominal possessive constructions in modern Low Saxon from two perspectives of modern linguistic analysis that are not often discussed together. First, I propose a formal syntactic analysis of the different constructions within the framework of Lexical Functional Grammar (Kaplan and Bresnan 1982). I then go on to analyze the actual usage of these constructions in a large corpus of Low Saxon text and determine to what degree they can be said to alternate and how they differ in their ranges of use. These two general approaches – the formal analysis of syntax and the quantitative analysis of corpus data – often seem to be regarded as radically different and maybe even incompatible views on natural language. In my opinion, however, an in-depth study of any area of grammar would be incomplete if it limits itself to just one of these perspectives and neglects the other. I believe that grammar and usage cannot be neatly separated and that usage preferences of today can become hard grammatical facts which are usually modeled by formal theories of syntax and semantics tomorrow (cf.

Hawkins 2004, chapter 1). Moreover, as Bresnan et al. (2001) have stated “soft constraints mirror hard constraints”, i.e. usage preferences in one language correspond to hard constraints in other languages so that a combination of both perspectives should allow us to get a better picture of cross-linguistic facts and tendencies (see also Hawkins 2004, chapter 1). In accordance with this view, I will limit my formal syntactic analysis to determining the structure of the constructions and defer all discussion of constraints on the use of the constructions – be they hard constraints or stronger or weaker preferences – to the second part of the thesis.

This also has the advantage that any constraints that I posit are tested on actual corpus data instead of only on intuitive judgments of a small number of native speakers. For the present study, intuitive judgments are difficult to evaluate because there is no standard variety of modern Low Saxon and this study deals with data from a large number of different dialects. This raises the issue whether it is sensible at all to undertake a study like this on such diverse data. Apart from the fact that even standardized languages show the same kinds of variation to a lesser degree, I believe that the existence of largely similar possessive constructions in the Germanic languages suggests that the structure of such constructions in different dialects of Low Saxon can be expected to be very similar (if not identical). In the quantitative study, I will code the examples for the factor *regional dialect* in order to allow comparisons between the whole sample and subsamples from major dialects. Nevertheless, I will use intuitive judgments of native speakers as additional data in order to clarify questions that come up and that cannot be answered by the data available in the corpus. Corpus data alone can of course never be used to determine the ungrammaticality of a construction because the absence of examples in a corpus – however large that corpus might be – is not sufficient evidence for the lack of grammaticality of a construction but only for its relative rarity.

Throughout this thesis, I will make reference to other languages (mostly other

Germanic languages) which use similar constructions to express possession. It is my hope that this analysis of Low Saxon possessive constructions might also shed some more light on related constructions in these languages.

I chose to write my thesis on the topic of nominal possessive constructions because it is my perception that the syntax of nominal phrases is still much less studied than the syntax on the level of the clause. I hope to show that nominal syntax is a very fascinating area of study that should receive more attention from modern linguistics.

1.2 Possession

As this thesis is about possessive constructions, I would ideally like to have a definition of possession that can be used to identify all relevant constructions in Low Saxon that have possessive meaning. Such a definition is indeed very hard to find (cf. also Rosenbach 2002, pp. 27–27). Most studies of possessive constructions give an extensional definition of the relevant constructions based on traditional classifications, i.e. they list the constructions they are interested in without further justification (e.g. Torp 1973; Hawkins 1981; Altenberg 1982; Plank 1992; Barker 1995; Norde 1997; Rosenbach 2002).

More general treatments of possession such as Seiler (1983), Langacker (1991, chapter 4.3.2), and Langacker (1999, chapter 6.3), try to give intensional definitions but the resulting definitions are necessarily quite vague because as remarked by many authors, e.g. Hawkins (1981), Lyons (1986), Langacker (1991), and Borschev and Partee (2001), there is an extraordinary variety of relationships coded by constructions traditionally classified as possessive constructions.

It is widely appreciated that the linguistic category of possession does not reduce to any single, familiar value, such as ownership. A moment's thought reveals the extraordinary variety of the relationships coded by

possessive constructions. With respect to the possessor, the thing possessed may constitute: a part (*my elbow*); a more inclusive assembly (*her team*); a relative (*your cousin*); some other associated individual (*their friend*); something owned (*his watch*); an unowned possession (*the baby's crib*); something manipulated (*my rook*); something at one's disposal (*her office*); something hosted (*the cat's fleas*); a physical quality (*his health*); a mental quality (*your patience*); a transient location (*my spot*); a permanent location (*their home*); a situation (*her predicament*); an action carried out (*his departure*); an action undergone (*Lincoln's assassination*); something selected (*my horse* [i.e. the one I bet one]); something that fulfills a particular function (*your bus*); someone serving in an official capacity (*our mayor*); and so on indefinitely. (Langacker 1991, p. 169)

Langacker nevertheless tries to give a general characterization of possession as a type of *reference point construction*, where one entity is identified by making reference to second more salient entity:

What all possessive locutions have in common, I suggest, is that one entity (the one we call possessor) is invoked as a reference point for the purposes of establishing mental contact with another (the possessed) [...] And instead of assuming that any one concept (like ownership) necessarily constitutes a unique, clear-cut prototype and basis for metaphorical extension, I propose that the category clusters around several conceptual archetypes, each of which saliently incorporates a reference point relationship: these archetypes include ownership, kinship, and part/whole relations involving physical objects (the body in particular). (Langacker 1999, p. 176)

Although this characterization is certainly very useful, it is still too vague to be practically applicable in delimiting a set of Low Saxon nominal possessive constructions. I therefore use the archetypes of possession given by Langacker as selection criteria. All *nominal* constructions used in my corpus (cf. chapter 1.4) that can express all of the following relations: ownership, kinship, and part/whole relation, without necessarily implying a further e.g. temporal or local relation, I will consider as possessive constructions and include in my study.¹

¹However, I will exclude from my discussion inherently relational nouns such as *mother* used

In chapter 2.1, I will use the criterion just outlined to establish the set of constructions that should be regarded as nominal possessive constructions of modern Low Saxon. But although I use Langacker’s archetypes in the first step of identifying possessive constructions, I will not limit my discussion to those instances of the identified constructions from the corpus that can indeed be classified as expressions of these three archetypical possessive relations but will include all instances of the constructions identified as possessive. In case the possessive marking in any of the identified possessive constructions should also have a non-possessive use, e.g. to indicate a specific local or temporal relation, I will exclude all clearly non-possessive instances from the quantitative study in chapter 3. As an example compare the following two examples from Norwegian:

(1.1) *mannen til Anne*
 man-DEF of Anne
 “Anne’s husband”

(1.2) *bussen til Peking*
 bus-DEF to Beijing
 “the bus to Beijing”

The preposition *til* in (1.1) is clearly used to express a kinship relation between Anne and her husband. The same preposition however is interpreted with its original directional meaning in (1.2). The bus does not have any relation to Beijing except that it will drive there. Examples like (1.2) will be excluded from the quantitative study in chapter 3.

As the terminology used in works on possessive constructions is somewhat confusing, cf. also Weerman and de Wit (1999, p. 1156), Barker (1995, chapter 0), Partee and Borschev (1999, p. 173), I will define a number of terms here that I will use throughout this thesis.

alone without an overt possessor phrase of any kind.

Possession is the semantic relationship expressed by a possessive locution as characterized by Langacker above.

Possessive construction is the term I will use for any *nominal* syntactic construction that expresses possession, e.g. the so-called *s-genitive* and *of-genitive* in English: *Anne's house* and *the house of Anne*.

Possessive phrase is a nominal phrase that is an instance of one particular possessive construction, e.g. *his mother*, *the dog's tail*, *the form of this word*.

Possessor is the entity that is invoked as the reference point in a possessive locution (cf. Langacker's characterization above), i.e. it is the owner in an ownership relation and the whole in a part/whole relation.

Possessor phrase is the phrase within the possessive phrase that refers to the possessor in the possessive relation. I regard the bold parts of the following possessive phrases to be the possessor phrases: ***his mother***, ***the dog's tail***, ***the form of this word***.

Possessum is the second entity in the possessive relation, i.e. the *possessed* in Langacker's terms. It is the owned entity in an ownership relation and the part in a part/whole relation.

Possessum phrase is the phrase within the possessive phrase that refers to the possessum in the possessive relation, e.g. *his **mother***, *the dog's **tail***, *the **form** of this word*.

Possessive marking, I will use as a neutral term for any explicit marking of a possessive construction, either by case, a special possessive morpheme (free or bound), or a preposition, etc.

Genitive is only used as a term for a specific case in my thesis. In such languages as German or Latin, the possessor phrase often occurs in the genitive case. The genitive is thus one kind of possessive marking. However, the genitive is not only used in possessive constructions and is not the only way of expressing possession in these languages either.²

Moreover, I will use the terms *prenominal possessive construction* to refer to possessive constructions in which the possessor phrase precedes the head of the possessum phrase

²Accordingly, I find the use of the term *genitive* for all kinds of possessive constructions in many studies unfortunate (cf. e.g. Lyons 1986; Norde 1997; Rosenbach 2002). As the other extreme, Barker (1995, chapter 0) wants to restrict the term possessive to just one particular construction in English, namely the s-possessive as in *Anne's house*.

and the term *postnominal possessive construction* to refer to those constructions in which the possessor phrase follows the head of the possessum phrase. In chapter 2.1, I will additionally introduce specific terms for the different possessive constructions identified for modern Low Saxon.

1.3 Low Saxon

Low Saxon (also known as Low German, Nedersaksisch, Platt, Plattdeutsch, Plautdietsch, etc.) is a West Germanic language spoken in northern Germany, the east of the Netherlands, and in emigrant communities throughout the world. It can be considered a “major” minor language in that estimates of the number of speakers are sometimes as high as 10,000,000; cf. the Ethnologue.³ However, its survival is threatened because its use has been declining for centuries and the language is often no longer passed on to children. Historically, it has developed out of the language of the Saxons, a Germanic tribe of northern Germany. The oldest stage of the language is accordingly called Old Saxon. During the later middle ages, it was used as the language of trade by the Hanseatic league throughout northern Europe and exerted considerable influence on the continental Scandinavian languages. This historical stage of the language is mostly referred to as Middle Low German. With the decline of the Hanseatic League, the language lost its official status and prestige and came more and more under the influence of High German and Dutch which became the languages of prestige in Northern Germany and in the east of the Netherlands, respectively. Consequently, the dialects in Germany have until very recently been regarded as Low German dialects of the German language and the dialects on the Dutch side of the border are still often called East Dutch dialects. In recent years, there has been a movement on both sides of the border to stop the decline of the

³www.ethnologue.com

language which has lost a lot of speakers especially after World War II and to regain some form of official status for it. Today, Low Saxon is an official regional language in the Netherlands under the name of Low Saxon and also in Northern Germany where it is usually called Low German, recognized by both countries under the terms of the European Charter for Regional or Minority Languages.⁴ But although the two power languages Dutch and German have had a great influence on the various dialects, there is still essentially a dialect continuum between the dialects on the German and Dutch sides of the border. On the one hand, because of the many commonalities and a common history, the varieties in Germany and the Netherlands are today seen by many as one language and new ties e.g. between authors and language activists from both sides of the border are being formed. On the other hand, many linguists in Germany and the Netherlands maintain the traditional position that there is no Low Saxon language and that the modern varieties have to be considered dialects of the two national languages German and Dutch because there is no standard Low Saxon and speakers of Low Saxon dialects use their respective national languages as the only formal register available to them (cf. Barbour and Stevenson 1990, pp. 11-14).

In addition to the “Dutch” and “German” varieties of Low Saxon, there are several Mennonite communities in Russia, Canada, the United States, all over Central and South America, and recently also in Germany that speak a dialect called Plautdietsch. This dialect which is still widely used in these communities exhibits typical characteristics of the nowadays extinct eastern dialects of Low Saxon formerly spoken in Northern Poland.

As already mentioned, there is neither a written nor a spoken standard variety of Low Saxon. Although literary production is quite substantial nowadays, authors usually use their own dialectal forms and often idiosyncratic writing systems. As it is

⁴See <http://conventions.coe.int> for the text of the charter and the list of ratifications and declarations.

used in different states, the respective official languages have influenced Low Saxon and largely shaped the way it is written. This means that Low Saxon varieties in the Netherlands are usually written in an orthographic system resembling that of Dutch, whereas the orthography used for dialects in Germany is largely based on Standard German. Mennonites in Canada or the US who write Plautdietsch sometimes even use English orthographic devices for their vernacular. Example (1.3) shows different variants of the word *söken* which translates to English “search”.

(1.3) säkje, säuken, seuken, söken, sööken, zoeken, zuiken

I will not attempt any form of normalization of the examples I analyze in the later chapters but will always provide an interlinear gloss and an English translation. For an overview of the history and current situation of Low Saxon see Sanders (1982), Cordes and Möhn (1983), Barbour and Stevenson (1990), Peters (1998), and Epp (1993) specifically for Mennonite Plautdietsch.

Typologically, Low Saxon is a typical West Germanic language that closely resembles Dutch and German. It exhibits the unmarked word order SVO in main clauses and the order SOV in subordinate clauses. Although its case system has been eroded considerably in comparison e.g. with German or Icelandic and only nominative and accusative forms are distinguished,⁵ it still allows for a relatively free word order. Like German and Dutch, it shows verb-second behavior which means that only one constituent – which does not necessarily have to be the subject – can appear in front of the finite verb in main clauses. In nominal phrases, articles and other determiners and adjectives precede the head noun, while prepositional phrases follow it. Low Saxon distinguishes between three genders: masculine, feminine, and neuter. Determiners and adjectives in nominal phrases have to agree with the head noun in

⁵In fact, only pronouns and masculine singular nouns have preserved the distinction between nominative and accusative. For the personal pronouns, most dialects have generalized the old dative case forms to become the new objective case which I will call accusative here in accordance with standard terminology.

number, gender, and case. Greenberg’s original language universal 2 predicts the position of possessives for Low Saxon which is a language that uses prepositions to be postnominal:

Universal 2. In languages with prepositions, the genitive almost always follows the governing noun, while in languages with postpositions it almost always precedes. (Greenberg 1966, p. 78)

For further information on the structure of Low Saxon, the following books can be consulted: Cordes and Möhn (1983), Russ (1989), Lindow et al. (1998), Stellmacher (2000) on the “German” varieties, and Neufeld (2000) on Mennonite Plautdietsch. There does not seem to exist a comprehensive treatment of the structure of the dialects in the east of the Netherlands, but see Weijnen (1966) for an overview of Dutch dialects and Barbour and Stevenson (1990) for a discussion of the Low Saxon dialects in Germany and the Netherlands and their relation to each other.

1.4 The corpus

Throughout this thesis, I will use data from a large corpus of Low Saxon electronic texts, both for the identification and formal analysis of possessive constructions and the statistical analysis of the usage of different constructions. The corpus consists of a document collection that I built for an information retrieval project (Strunk 2003a) by manually harvesting the internet for Low Saxon texts. The Low Saxon community on the web is quite large and luckily well interlinked, so that it was relatively easy to find a large number of web sites wholly or partly in Low Saxon. I downloaded about 2700 documents of which 1745 contain Low Saxon only text while the rest is only partly in Low Saxon. Downloading these documents to my local file system and saving them in utf-16 format resulted in about 74 MB of html files of which about 40 MB are written in Low Saxon only. I collected a large diversity of

texts ranging from Wikipedia⁶ articles to poetry in different dialects and orthographic systems. I estimate that the resulting corpus contains a sizeable portion of all Low Saxon texts on the internet. In this thesis, I will use the 1745 Low Saxon only documents as data. Together they contain a little more than 1,000,000 tokens of running text (including punctuation) which is quite large for a corpus of a lesser-used language. As far as the representativeness of the corpus is concerned, several remarks are in order. First of all, the corpus only contains written texts some of which were created specifically for the web while some are excerpts from books or journals in Low Saxon. Thus, any results from my corpus study have to be regarded as results on written Low Saxon and whether they generalize to spoken Low Saxon is an empirical question. Second, some texts are original Low Saxon texts, while others such as parts of the Bible are translations from other languages. The corpus contains texts of many different genres, such as short stories, journals, jokes, news, poems, biblical texts, political discussions, etc. Results arising from the corpus study are thus very likely not restricted to any specific text genre. Third, different dialect areas are more or less frequently represented in the corpus reflecting the number of web pages in the individual dialects that I was able to find. The three larger dialect areas that are best represented in the collection are Northern Low Saxon, Low Saxon from the Netherlands, and Mennonite Plautdietsch, while such dialects as Achterhoeks, Westphalian, or Eastphalian are less well represented. This seems to be representative in so far as the former are dialects that still have a larger number of speakers while the use of the latter has been declining more rapidly. To sum up, I believe that my corpus of Low Saxon is a reasonably diverse corpus of written Low Saxon that will allow for the analysis of realistic examples and for insights into the usage differences between different possessive constructions.

⁶<http://nds.wikipedia.org/wiki.cgi>

1.5 Lexical Functional Grammar

The framework of Lexical Functional Grammar (LFG) (Kaplan and Bresnan 1982; Bresnan 2001; Dalrymple 2001; Falk 2001) is a non-derivational formalism based on partial correspondences between different levels of linguistic structure that co-describe the sentences of a language. The two levels of linguistic structure traditionally assumed in LFG that are most relevant to the syntactic analysis of language are called c-structure and f-structure. The c-structure is used to model the constituent structure of sentences usually in the form of a context-free grammar. The f-structure is a hierarchical attribute-value matrix that represents the functional structure of sentences which includes underlying grammatical relations such as SUBJ(ect), OBJ(ect), ADJ(unct), POSS(essor), etc. The value of an attribute inside an f-structure can either be an atomic value or another f-structure.

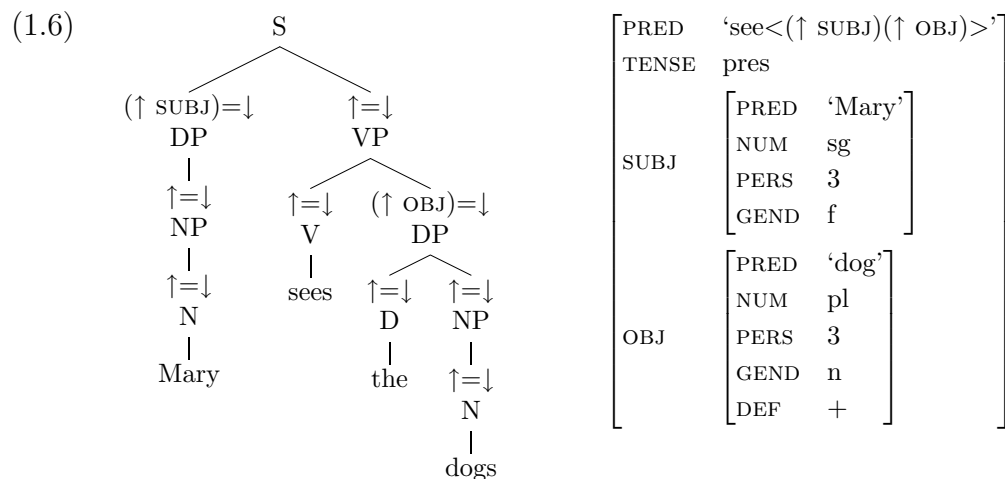
The hypothesis which underlies the division of labor between phrase structure and functional structure is that although individual languages differ quite radically in their constituent structure, functional structure is largely identical across languages. The two structures are set into correspondence by a function ϕ which projects information from nodes in the c-structure into the f-structure. How information from the c-structure is projected into the f-structure is specified by functional equations that are either associated with particular categories in the right-hand side of c-structure rules or contained in the lexical information of individual words. In these functional equations, the variable \downarrow refers to the f-structure that corresponds to the c-structure node which is annotated with the functional equation, while the variable \uparrow refers to the f-structure that corresponds to the mother of the annotated c-structure node. By annotating all c-structure nodes in a constituent structure tree, the correspondence function ϕ between c-structure and f-structure can be specified in a piecewise fashion. According to Bresnan (2001), there are certain mapping principles which govern how

c-structure nodes are annotated with functional equations, e.g. the head constituent is usually annotated with the functional schema $\uparrow=\downarrow$ which means that the f-structure of the head and that of its mother are identified, i.e. they are one and the same f-structure. LFG allows more than one c-structure node in a rule to be annotated with $\uparrow=\downarrow$. The category that is not a c-structure head – i.e. does not project any higher in the c-structure – but is nonetheless annotated with $\uparrow=\downarrow$ is called co-head. Other non-projecting c-structure nodes are annotated with $(\uparrow GF)=\downarrow$, where GF represents any grammatical function such as e.g. SUBJ, OBJ, OBL, ADJ, POSS, etc. In (1.4), I define a small toy c-structure grammar with functional annotations. Figure (1.5) exemplifies the structure of lexical entries which contain information in the form of functional equations.

$$\begin{array}{lcl}
 (1.4) \quad S & \rightarrow & \text{DP} \quad \text{VP} \\
 & & (\uparrow \text{SUBJ})=\downarrow \quad \uparrow=\downarrow \\
 \\
 \text{VP} & \rightarrow & \text{V} \quad \text{DP} \\
 & & \uparrow=\downarrow \quad (\uparrow \text{OBJ})=\downarrow \\
 \\
 \text{DP} & \rightarrow & (\text{D}) \quad (\text{NP}) \\
 & & \uparrow=\downarrow \quad \uparrow=\downarrow \\
 \\
 \text{NP} & \rightarrow & \text{N} \\
 & & \uparrow=\downarrow
 \end{array}$$

- (1.5) Mary N (\uparrow PRED)='Mary'
 (\uparrow NUM)=sg
 (\uparrow PERS)=3
 (\uparrow GEND)=f
- dogs N (\uparrow PRED)='dog'
 (\uparrow NUM)=pl
 (\uparrow PERS)=3
 (\uparrow GEND)=n
- sees V (\uparrow PRED)='see<(\uparrow SUBJ)(\uparrow OBJ)>'
 (\uparrow SUBJ NUM)=sg
 (\uparrow SUBJ PERS)=3
 (\uparrow TENSE)=pres
- the D (\uparrow DEF)=+

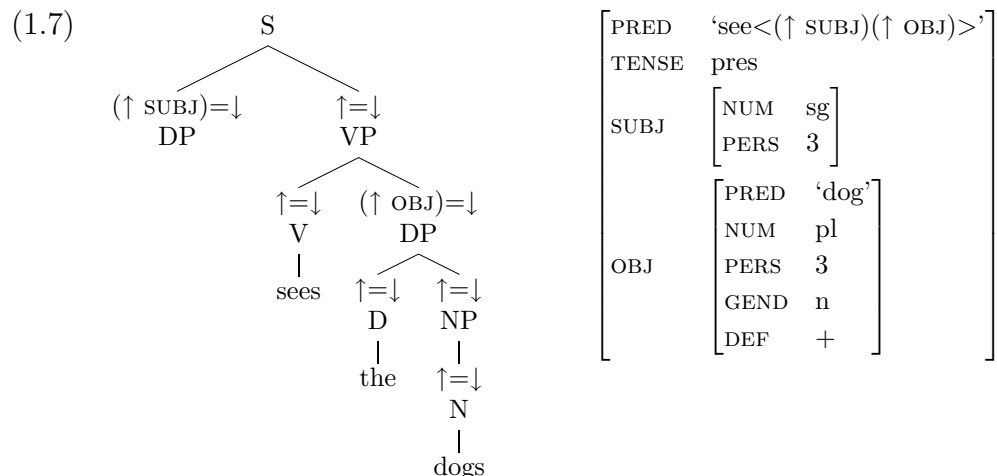
Figure (1.6) is a simple example of the correspondence between c-structure and f-structure according to the toy grammar and lexicon above.



The f-structure that results from solving the functional annotations contains the information from all the lexical entries combined in the way defined by the functional annotations. The features from the D node and from the NP node inside the object which are co-heads are projected into the same f-structure. The PERS and NUM features in the SUBJ f-structure also stem from two sources. They are specified once by

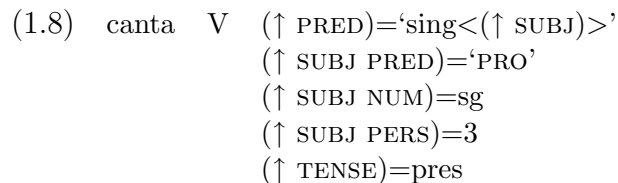
the head noun in the DP, namely *Mary*, and once by the verb *sees* which uses them to enforce subject-verb agreement. The PERS feature specified by the head noun of the subject and the PERS feature specified by the verb can unify because they have the same value. The PRED feature is special in this respect because its value can never be unified with another value even if they are equal. This principle ensures that a single predicate in the f-structure cannot be expressed more than once in the c-structure.

There are three main principles which constrain valid f-structures. The *uniqueness condition* prevents an attribute in an f-structure such as e.g. SUBJ or NUM(ber) from having more than one value. The *completeness condition* requires that all grammatical functions specified in a PRED value, e.g. ‘see<(↑ SUBJ)(↑ OBJ)>’, have to be present in the f-structure which contains the PRED feature. This principle ensures that all arguments that a predicate requires have to appear somewhere in the c-structure. Additionally, it also requires that these argument functions contain a PRED value themselves, thus excluding empty argument f-structures. Conversely, the *coherence condition* prevents argument functions, i.e. SUBJ, OBJ, OBJ_θ, OBL, COMP, and XCOMP, from appearing in an f-structure that does not contain a predicate that selects for them. The three principles allow the c-structure rules to be stated in a concise and flexible manner. To see this, consider the DP rule in figure (1.4). The parentheses indicate that both categories on the right-hand side of the rule are optional. The c-structure grammar in (1.4) alone would thus allow zero DPs. However, this possibility is excluded by the *completeness condition*. The string *sees the dogs* e.g. would be well-formed according to the c-structure rules but the corresponding f-structure would be incomplete because the value of the PRED feature namely the verb ‘see<(↑ SUBJ)(↑ OBJ)>’ requires the presence of the grammatical function SUBJ with an embedded PRED value; cf. figure (1.7).

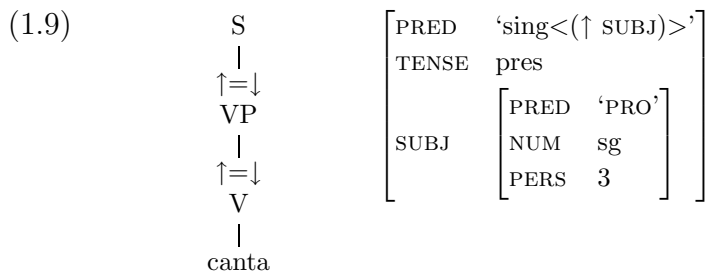


Note that the lexical entry of the verb *see* contains information about its subject and therefore projects a SUBJ function in the f-structure in example (1.7). But the *completeness condition* is still not satisfied because the value of SUBJ does not contain a PRED feature, i.e. it is basically semantically empty.

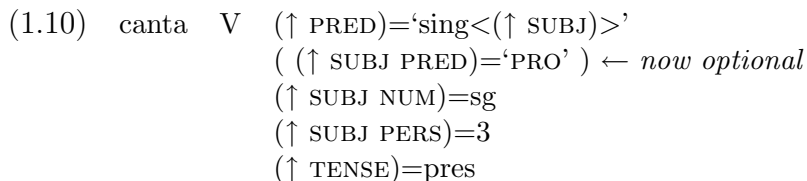
Some languages such as Italian exhibit so-called pro-drop behavior. This means that an argument requirement of the predicate does not necessarily have to be satisfied by a syntactically realized phrase. Instead the inflectional morphology on the Italian finite verb provides enough information to identify person and number of the subject and allows a pronominal interpretation of the subject. In LFG it is standardly assumed that the finite verb itself specifies a pronominal PRED feature for its subject with the functional equation $(\uparrow \text{SUBJ PRED})=\text{'PRO'}$; cf. the lexical entry of the Italian verb *canta* (sing.3.SG) in figure (1.8).



The finite verb *canta* used alone is therefore sufficient to project a complete f-structure; cf. figure (1.9). The resulting sentence is: *Canta.* (He/she/it sings.)



However, the current lexical entry of *canta* does not allow for the co-occurrence of a syntactically realized subject phrase because the PRED feature of the subject is already assigned by the verb and cannot get another value from a subject DP without violating the *uniqueness condition*. The standard solution in LFG is to make the $(\uparrow \text{SUBJ PRED}) = \text{‘PRO’}$ in the lexical entry of *canta* optional. This is indicated by enclosing the functional equation in parentheses; cf. figure (1.10). A syntactically realized DP can now project a PRED feature into the predicate’s SUBJ function without violating the *uniqueness condition* or alternatively if there is no syntactically realized subject, a pronominal interpretation is optionally specified by the finite verb itself in order to satisfy the *completeness condition*.



This analysis of pronoun incorporation and pro-drop is outlined in Bresnan (2001, chapter 8). I will use these basic mechanisms in my LFG analysis of the Low Saxon possessive constructions in chapter 2.

In addition to the defining functional equations explained so far, LFG also allows for so-called constraining equations. These constraining equations do not assign any value to an attribute, they only test whether an attribute exists or whether it has a certain value: $(\uparrow \text{SUBJ})$ is a constraining equation that tests for the existence of the attribute SUBJ, $(\downarrow \text{CASE}) = \textit{c}_{\text{nom}}$ tests whether the CASE attribute of the f-structure

corresponding to the annotated c-structure node has the value *nom*. Such constraining equations can also be used in implications to control the application of defining equations, e.g. $(\downarrow \text{CASE}) =_{\text{c}} \text{nom} \Rightarrow (\uparrow \text{SUBJ}) = \downarrow$ identifies the f-structure corresponding to the annotated c-structure node with the SUBJ function in its mother's f-structure if the f-structure of the annotated node contains the attribute CASE with the value *nom*(inactive).

This concludes my overview of Lexical Functional Grammar. For a more detailed introduction consult one of the LFG textbooks (Bresnan 2001; Dalrymple 2001; Falk 2001). My syntactic analyses in chapter 2 will be based on the version of LFG described in Bresnan (2001).

1.6 Overview of the thesis

This thesis is divided into two main parts. The first part presented in chapter 2 starts with the identification of the possessive constructions that are productively used in modern Low Saxon. Sections 2.2, 2.3, 2.4, and 2.5 contain detailed syntactic analyses of the four most frequent possessive constructions of modern Low Saxon. The first part concludes with a short discussion of further research questions and issues that could not be dealt with in greater detail in this thesis in section 2.6. The second part contained in chapter 3 starts out by establishing the existence of multiple possessive constructions in modern Low Saxon as an instance of syntactic choice and variation. I discuss several factors that are likely to influence the choice of possessive construction in Low Saxon in section 3.3. The coding scheme that I use in the annotation of the data for the corpus studies is outlined in section 3.5. Section 3.6 presents the results of a corpus study on the ranges of use of the different possessive constructions analyzed in chapter 2. Chapter 4 concludes this thesis with a final discussion of the results.

Chapter 2

Syntactic analysis

2.1 Identification of possessive constructions

I will now proceed to establish the range of constructions that should be considered as possessive constructions of Low Saxon. As already stated in the introduction, I will restrict myself to dealing with nominal constructions in order to maintain *structural comparability* (cf. Jakobson 1980) and to keep the range of phenomena covered in this thesis manageable. I use the following criteria to identify nominal possessive constructions:

1. The possessive phrase must have the same distribution as simple nominal phrases such as proper names or determiner plus noun, etc. The whole possessive phrase must thus be a complex nominal phrase that can be used as subject, object, etc.
2. The possessive phrase has to be continuous, i.e. it has to form a constituent. If possessor phrase and possessum phrase can *never* be realized as one constituent, I exclude the construction in question from my analysis. However, *optionally discontinuous* possessive constructions will not be excluded.
3. The possessive construction must allow both the possessor phrase and the possessum phrase to be explicitly realized, i.e. constructions that only allow implicit

possessors or possessums are excluded. However, if one or both of possessor and possessum phrase can be *optionally* elided in a construction, that construction will still be included.

4. The construction must be able to express all the prototypical possessive relations ownership, kinship, and part/whole of physical objects (cf. section 1.2).

I have looked through the large electronic corpus of Low Saxon web documents that I collected (cf. section 1.4) to identify nominal possessive constructions according to these criteria and to mark all possessive phrases in the corpus. Except for those examples for which I explicitly cite another source, all Low Saxon examples given in this thesis are taken from this corpus.

All candidate constructions that I discuss below pass conditions 1-3. However, I will not provide examples here to prove that they can be analyzed as a constituent and that they have the same distribution as simpler DPs because this would take up far too much space. For the most common candidate constructions that also pass condition 4, I will give detailed LFG analyses in the following sections.

The first example of a possible possessive construction in the corpus consists of a pronoun preceding a noun (which might be further modified); cf. example (2.1).

- (2.1) *mien stamkafee*
 my favorite café
 “my favorite café”

This construction involves a special type of pronoun which I will call *possessive pronoun* according to traditional terminology. The pronoun agrees with the head noun in number, gender, and case. Examples (2.2)–(2.4) show that the construction satisfies my criteria for the identification of possessive constructions. I will therefore give an in-depth analysis of this construction in section 2.2. In the remainder of this thesis, I will refer to it as the *possessive pronoun construction*.

As can be seen from example (2.5), a superficially similar construction with the ordinary nominative or accusative pronouns is also possible.

- | | | |
|--|--|--|
| (2.2) <i>mien Geld</i>
my money
“my money” | (2.3) <i>miene Mutta</i>
my mother
“my mother” | (2.4) <i>mien Hand</i>
my hand
“my hand” |
|--|--|--|

- (2.5) *du olle Flunner*
2.SG.NOM old flounder
“you old flounder”

However, this construction is not able to express the prototypical possessive relationships. Examples like (2.5) seem to be used in order to allow a reference to the speaker(s) or hearer(s) using a nominal expression. Example (2.5) is used to address the hearer and simultaneously describe him, her, or it as a flounder. As a result examples like (2.5) trigger first or second person verb agreement if they are used as subjects. The referent of the preceding pronoun in such examples is always identical to the referent of the noun and to the referent of the whole construction. This is not compatible with a possessive relation where one referent is used as a reference point for the identification of the second referent. I thus conclude that the type of construction exemplified in (2.5) is not a possessive construction and exclude it from further analysis.

Another candidate construction which is very rarely attested in my corpus also involves a possessive pronoun. But this time it follows the head noun and does not agree with the head noun in number, gender, or case; cf. examples (2.6)–(2.8). Examples (2.6) and (2.7) show that this construction which I will call *postnominal*

- | | | |
|--|---|---|
| (2.6) <i>Leewster mien</i>
darling my
“my darling” | (2.7) <i>Vadder unser</i>
father our
“our father” | (2.8) <i>alle Gnaden Dien</i>
all grace-PL your
“all thy grace” |
|--|---|---|

possessive pronoun construction is able to express the relation of kinship. However, I

did not find any examples that encode a prototypical ownership or part/whole relation in my corpus. I therefore elicited judgments from a native speaker.¹ My informant considers this construction to be a very archaic one that is not used actively anymore. According to his judgments, it is only grammatical with the 1.SG, 2.SG, and 3.SG.M/N possessive pronouns: *mien*, *dien*, and *sien*.² It seems that all other forms of the possessive pronouns cannot be used in this construction at all.³ There seem to be further restrictions: my informant regards *dat Hus mien* (my house) and *dat Hart mien* (my heart) as worse than *de Mudder dien* (your mother). It is difficult to try to find out what exactly renders the former less grammatical than the latter because the construction as a whole is no longer actively used in modern Low Saxon.⁴ The postnominal possessive pronoun construction seems to be quite archaic and only used in special formulaic expressions such as the beginning of the paternoster or in poetry. I conclude that it is not a part of the synchronic system of Low Saxon. For this reason, I exclude it from further analysis.

There is another candidate construction that involves a pronominal possessor phrase. In this construction, the forms of the possessive pronoun paradigm are used after a definite article and they carry weak adjectival inflection, cf. examples (2.9) and (2.10), I will therefore call it the *adjectival possessive construction* (cf. also Drosdowski et al. 1995, p. 331). Other determiners such as demonstratives or the indefinite article cannot be used in this construction at all. Only the definite article is possible. Strictly speaking, this construction does not fulfil condition 3 of my criteria because

¹Reinhard F. Hahn p.c.

²This could be the case because these possessive pronouns have the same form as the old genitive pronouns (cf. Lübben 1882, p. 106–107). However, even though feminine singular *ehr* also corresponds to the old genitive form it cannot be used after the head noun.

³*Vadder unser* is an exception, but it is a loan translation from either Latin *pater noster* or German *Vater unser*.

⁴My informant suspects that the construction is only used with possessum phrases that refer to people with whom one has a close relationship, but see example (2.8).

it never allows an explicit possessum phrase.⁵; cf. example (2.11)

(2.9) *daut sienje*
 the.N his
 “his”

(2.10) *dee Onnse*
 the.PL our
 “ours” / “our (people)”

(2.11) **dat siene Huus*
 the.N his house.N
 “his house”

Instead the referent of the possessum has to be inferred from the textual or extra-textual context: e.g. *daut sienje* in example (2.12) has to be interpreted as something like “his word” or “his law”.

(2.12) *Dan Mooses haft fonn lang haea enn jiede Staut soone dee*
 because Moses has from long gone in every town such who
*enne Sienagooge **daut sienje** praedje, wua daut jiede Saubat*
 in.the synagogue the.N.SG his preach, where that every Sabbath
jelaest woat.
 read is

“For Moses (i.e. his law) has been preached in every city from the earliest times and is read in the synagogues on every Sabbath.” (Acts 15:21)

This inference of the possessum from the context is aided by the gender and number information contained in the definite article which precedes the pronominal possessor phrase. One could thus argue that this article constitutes the possessum phrase. However, the possessum phrase would be strangely restricted to only allow definite articles. Moreover, it seems to me that the definite article does not refer to anything or anybody in this construction. Instead it only facilitates the identification of the possessum referent. A good argument for this view is that when a form of the “definite article” alone is used to refer to an entity it has to be stressed. According to Himmelmann (2001) such a stressed article rather has to be considered a high

⁵2.11 is a constructed example judged to be ungrammatical by my informant.

frequency demonstrative. The definite article in the adjectival possessive construction is not stressed and thus does not seem to function as a referring expression on its own. At least some combinations of definite article plus possessive pronoun seem to have acquired a conventionalized meaning where the possessum is no longer inferred from the context. The neuter singular *daut sienje* in example (2.9) commonly refers to a person's property, whereas the plural *de Onnse* in example (2.10) refers to a person's own people such as his or her family, etc. The possessive adjective construction seems to be quite rare. My corpus of Low Saxon only contains a handful of examples. I will therefore not discuss it further in this thesis.

A much more productive construction which is able to express the three prototypical possessive relations, cf. examples (2.13)–(2.15), involves a possessive pronoun occurring in between a preceding possessor phrase and a following possessum phrase.

(2.13) *Siemoon sien Hus*
 Simon his house
 “Simon's house”

(2.14) *Hinnerk sien Modder*
 Hinnerk his mother
 “Hinnerk's mother”

(2.15) *den Schipper sien Been*
 the skipper his leg(s)
 “the skipper's leg(s)”

As the possessive pronoun seems to act as a linking element between possessor phrase and possessum phrase, I will refer to this construction as *possessive linker construction*; cf. also Himmelmann (1997) and Koptjevskaja-Tamm (2001). Example (2.16) shows that the whole construction does indeed form a constituent because the whole possessive phrase is the subject of the verb and appears in preverbal position which can only be occupied by one constituent. One could still try to argue that *Wendlandt* does not form a constituent with *sien Vadder* in (2.16) but is left-dislocated, a so-called hanging topic. This argument is however not applicable to

example (2.17) where the whole possessive phrase is the complement of the preposition *von*. This example thus clearly shows that the possessive linker construction does indeed form a constituent. But example (2.18) demonstrates that not all cases where a possible possessor phrase is followed by possessive pronoun and possessum phrase can be analyzed as possessive linker constructions. The same sequence can also arise accidentally when two separate constituents follow each other. In example (2.18), the phrase *dit Johrhunnert* (this century) is the subject of the verb while the phrase *sienen Anfang* (its beginning) which is an instance of the possessive pronoun construction is the object of the verb. Example (2.19)⁶ makes clear that the adjacency of the two constituents is accidental: they have to appear separated by the finite verb in a non-embedded clause.

(2.16) [*Wendlandt sien Vadder*] *harr gor Fritz Reuter noch gaud kennt.*
 Wendlandt his father had even Fritz Reuter still well known
 “Wendlandt’s father had even still known Fritz Reuter well.”

(2.17) *se sungen [dat Leed von [Herrn Pastor sien Koh]].*
 they sang the song of mister pastor his cow
 “They sang the song of the pastor’s cow.”

(2.18) *As [dit Johrhunnert] [sienen Anfang] neghm...*
 when this century its beginning took
 “When this century began...”

(2.19) [*Dit Johrhunnert*] *neghm [sienen Anfang].*
 this century took its beginning
 “This century began.”

I will discuss the structure of the possessive linker construction, i.e. examples like (2.16) which have to be analyzed as one constituent, in section 2.3.

Another candidate construction resembles the English *s*-possessive (also called *s*-genitive). The possessive marker *s* which I will gloss as POSS in the examples

⁶Example (2.19) is not taken from the corpus. It is a modified version of example (2.18).

is attached to the end of the possessor phrase which again precedes the possessum phrase. Examples (2.20)–(2.22) prove that this construction can express the three prototypical possessive relations.

- | | | | | | | |
|--------|----------------------------|----------------|--------------|--------|--------------------|-------------|
| (2.20) | <i>dien</i> | <i>Navers</i> | <i>Eegen</i> | (2.21) | <i>Pasters</i> | <i>Söhn</i> |
| | your | neighbors=POSS | property | | pastor=POSS | son |
| | “your neighbor’s property” | | | | “the pastor’s son” | |
-
- | | | |
|--------|---------------------|-----------------|
| (2.22) | <i>Mudders</i> | <i>Schuller</i> |
| | mother=POSS | shoulder |
| | “mother’s shoulder” | |

I will give an in-depth analysis of the *s*-possessive in section (2.4).

There are some examples that look like the *s*-possessive at first glance but turn out to behave differently. In examples like (2.23) and (2.24), the possible possessor phrases do not have specific reference. Moreover, the whole possessive phrase is stressed on the possessor part which points to a compound analysis of these examples.⁷ Example (2.24) is especially clear evidence for a compound analysis because the preceding determiner agrees in gender with the second noun *Jesats* and not with the first noun *Jeistes*. Such a structure is impossible for a normal *s*-possessive construction but easily explained by the right-headedness of Low Saxon noun compounds. These compounds are comparable in some ways to the so-called English possessive compound construction or “classifying genitives” as in example (2.25) (cf. Rosenbach 2002, pp. 14–19). However, in contrast to English the remaining gender and number distinctions in the determiner paradigms can help to disambiguate a non-specific possessor phrase in an *s*-possessive construction from the first part of a compound noun so that there is only one possible bracketing for example (2.24), but two for the English phrase *a driver’s licence*; cf. examples (2.25) and (2.26).

⁷In contrast to English, compound nouns are usually written as one orthographic word in Low Saxon. But as the examples show, this rule is not followed consistently.

(2.23) *Besetters Wies*
 occupiers' way
 "occupiers' way"

(2.24) *daut [Jeistes Jesats]*
 the.N spirit.M's law.N
 "the law of the spirit"

(2.25) a [driver's licence]

(2.26) [a driver's] licence

Rosenbach (2002) assumes that there is a principled ambiguity between a real s-possessive structure and a possessive compound structure for examples like (2.25) and (2.26) and takes this as evidence that there is a "fluid" borderline between syntax and morphology (p. 16). Moreover she assumes that a generic interpretation of the possessor phrase – which she equates with a non-referential reading (Rosenbach 2002, p. 50) – is connected to the structural bracketing of possessor phrase and possessum phrase as a compound (pp. 15, 16). However, an example like (2.27) which cannot be analyzed as a compound nonetheless allows for a generic interpretation of the possessor phrase.

(2.27) A king's beautiful daughter is always likely to be eaten by a dragon.

Moreover, consider the contrast between the two Low Saxon examples (2.28) and (2.29).⁸ Example (2.28) allows for both the stress pattern of a syntactic possessive phrase and that of a compound noun because the indefinite determiner *een* can be used both with masculine and feminine nouns and is thus compatible with both nouns in this example. But even for the non-compound stress pattern, a generic, non-referential interpretation of the possessor phrase is possible.⁹ In contrast, the form of the determiner in example (2.29) *ne* forces a compound reading because it is only used with feminine nouns in most dialects. But although a generic interpretation of

⁸Examples (2.28)–(2.30) are constructed. I have consulted my informants to obtain judgments on them.

⁹Reinhard F. Hahn p.c.

example (2.28) is perfectly fine, the forced compound interpretation of example (2.29) is strange and it is not clear what meaning the compound is supposed to have.

(2.28) *een Manns Tochter*
 a.M/F man.M=POSS daughter.F
 “[a man’s] daughter” or “a [man’s daughter]”

(2.29) ? *ne Manns Tochter*
 a.F man.M=POSS daughter.F
 “a [man’s daughter]”

(2.30) * *daut Jeistes grootet Jesats*
 the.N spirit.M great.N law.N
 “the great law of the spirit”

This points to semantic differences and/or factors of lexicalization and idiomatization that distinguish generic, non-referential syntactic s-possessive phrases and possessive compounds. A possessive phrase with the generic possessor *een Manns* (a man’s) makes sense in example (2.28) when talking about men and their daughters in general, but a forced compound reading as in example (2.29) is odd presumably because all daughters have a father and *man’s* is not a sensible way of classifying *daughter* in a compound.

Moreover, the fact that a phrase like (2.30) is impossible as a compound shows that the s-possessive and nominal compounds clearly have a very different structure and although I do not doubt that the borderline between syntax and morphology is indeed fuzzy I conclude that the syntactic s-possessive with a non-referential possessor and possessive compounds have to be distinguished in Low Saxon. As I am mainly interested in the syntactic structure of the possessive constructions, I will not discuss possessive compounds in this thesis.

There are two further marginal constructions which are attested very rarely in my corpus. They both involve a nominal phrase in the genitive case. Although

all dialects of modern Low Saxon have generally lost the genitive, it is preserved in certain idiomatic formulas or loan translations from Dutch or German. A genitive noun phrase can either precede the possessum phrase in the *prenominal genitive construction* or follow it in the *postnominal genitive construction*; cf. examples (2.31) and (2.32). Example (2.33) is a special case where the Latin genitive form *Jesu* is used.

(2.31) *des Königes Tochter*
 the.M.SG.GEN king-M.SG.GEN daughter
 “the king’s daughter”

(2.32) *de generaal der Chinezen*
 the general the.PL.GEN Chinese
 “the general of the Chinese”

(2.33) *Jesu Land*
 Jesus.GEN land
 “Jesus’ land”

As was the case with the postnominal possessive pronoun construction, the genitive constructions are very rare in my corpus and only occur in older poetry and special idiomatic formulas. The scarcity of genitive constructions in my corpus which mostly consists of newer texts contrasts with the findings of Saltveit (1983) who reports:

Als Gesamtbild ergibt sich, daß der Genitiv im Nd. wohl nicht sehr geläufig ist, daß aber Typen vorkommen, die im Vergleich zur Hochsprache altertümlich und ursprünglich sind. (Saltveit 1983, p. 316)

The overall picture that emerges is that the genitive is not very common in Low Saxon but that certain types occur that in comparison to Standard German are ancient and original.

Saltveit gives some examples of typical partitives that appear in the genitive case; cf. examples (2.34) and (2.35) from Saltveit (1983, p. 315).

(2.34) *negen pund silvers*
 nine pound silver-N.SG.GEN
 “nine pound of silver” (Saltveit 1983, p. 315)

(2.35) *wat geldes*
 some money-N.SG.GEN
 “a little bit of money” (Saltveit 1983, p. 315)

I have only found one such example in my whole corpus; cf. (2.36).

(2.36) *'n goot Stück Wegs, wat vör ehr liggt*
 a good piece way-M.SG.GEN that before them lies
 “a long way that lies ahead of them”

Saltveit mostly relies on sources from the 19th century or the beginning of the 20th century. It seems then that even these remnant genitive constructions have fallen out of use in modern Low Saxon.

One idiomatic use of the genitive that Saltveit (1983, p. 316) reports and that I do find in my corpus involves the use of the phrase *anner Lüüd* (other people); cf. example (2.37) from my corpus.

(2.37) *anner Lüüd Saken*
 other people.PL.GEN things
 “other people’s things”

The form of *Lüüd* in this example is the same as in the nominative or accusative. Saltveit (1983, p. 316) regards this as evidence for the fact that the genitive morpheme can be left out in Low Saxon even in prototypically possessive, i.e. non-partitive,

contexts. However, while it is true that *Lüüd* is not distinctively marked as genitive, this form is indeed the old genitive form of this noun which has been preserved in this fixed expression but it is no evidence for the general possibility of expressing possession without any possessive marking in Low Saxon. I would also like to point out another probably erroneous assumption that Saltveit makes while assessing the use of the genitive in Low Saxon. He considers examples (2.38)–(2.40) as partitive constructions that contain nominalized adjectives in genitive case. He argues that the *-s* suffix cannot be a neuter singular inflection because the usual neuter singular inflection in Low Saxon is *-t* (Saltveit 1983, p. 316).

(2.38) *wat friskes*
 something fresh-N.SG.GEN/N.SG.STR?
 “something fresh” (Saltveit 1983, p. 316)

(2.39) *nix biätters*
 nothing better-N.SG.GEN/N.SG.STR?
 “nothing better” (Saltveit 1983, p. 316)

(2.40) *so wat Mecklenbörgisches*
 so something Mecklenburgian-N.SG.GEN/N.SG.STR?
 “something Mecklenburgian like that” (Saltveit 1983, p. 316)

It might well be the case that some of these examples can only be analyzed as involving a partitive genitive because *-s* is not used as a neuter singular inflection on adjectives in the dialects in question. But I’d like to point out that a considerable number of Low Saxon dialects actually do use *-s* as neuter singular inflection on adjectives; cf. examples (2.41) and (2.42). Whether this is due to influence from German or a native development whereby the old neuter singular genitive inflection has been generalized to become the neuter singular inflection for all cases in some dialects, only a diachronic study may reveal.

(2.41) *wo se een grotes Goldstück fund*
 where she a big-N.SG.STR gold coin.N.SG found
 “where she found a big gold coin”

(2.42) *Mien lüttes Hart, nu wees man still*
 my little-N.SG.STR heart.N.SG, now be just calm
 “My little heart, now be calm”

It thus seems to me that Saltveit overestimates the use of the old genitive in modern Low Saxon by using mostly older source material and by analyzing certain doubtful examples as *ancient* and *original* uses of the genitive. My informant considers examples like (2.31)–(2.33) which did occur in my corpus to be very archaic and not really part of modern Low Saxon.¹⁰ I will therefore not provide a more detailed analysis of the genitive constructions in this thesis.

In addition to the mostly prenominal constructions I have discussed so far, all dialects make use of postnominal PPs with the preposition *van/von/vun*¹¹ to express possession; cf. examples (2.43)–(2.45).

(2.43) *nen kompjoeter van aandere leu*
 a computer of other people
 “a computer of other people”

(2.44) *de Vadder vun Hinnerk*
 the father of Hinnerk
 “Hinnerk’s father”

(2.45) *de Arms vun de natte Jack*
 the arms of the wet jacket
 “the arms of the wet jacket”

In the remainder of this thesis, I will refer to this construction as the *prepositional possessive construction*. Note however that the preposition *van/von/vun* is not only

¹⁰Reinhard F. Hahn, p.c.

¹¹The exact pronunciation and preferred spelling varies from one dialect to the other.

used in this possessive construction but also in prepositional complements of certain verbs and prepositional adjuncts in nominal phrases where it mostly retains its original directional sense “from”. As already explained in section 1.2, I will not consider such examples as (2.46) where *van/von/vun* is unambiguously used with its original directional meaning as possessive phrases and will hence exclude such examples from both the structural analysis and the corpus study.

- (2.46) *een Daagreis' vun uns' lütt Dörp bet na Niebrannborg*
 a day's journey from our small village till to Niebrannborg
 “a day's journey from our small village to Neubrandenburg”

I have found one example where a different preposition than *van/von/vun* is used to denote a possessive relation. In the following example from the Plautdietsch Bible, the preposition *aun* (on, at, by, near) is chosen to express a kinship relation.

- (2.47) *en Brooda aun Jakoobus*
 a brother at James
 “a brother of James”

According to Lisa Mays (p.c.), the preposition *aun* can be used in the Old Colony Plautdietsch of her informant from Mexico to express the relation of kinship; cf. example (2.48). This use might be on its way out of the language though because her informant reports that *aun* is mostly used by her mother's generation in this way.

- (2.48) *Daut es de Broda aun den.*
 that is the brother at DEM.M.SG.ACC
 “That is that one's brother.” (Lisa Mays, p.c.)

All in all, the preposition *van/von/vun* is used most frequently and in all dialects. I will analyze the prepositional possessive construction in section 2.5.

2.2 The possessive pronoun construction

The most common possessive construction in my corpus of Low Saxon is the possessive pronoun construction. Its possessor phrase contains a possessive pronoun and precedes the possessum phrase; cf. examples (2.49)–(2.51). I will gloss the possessive pronouns with their English counterparts and additional relevant morphosyntactic information such as case, gender, and number.

(2.49) *ehr* *Gesicht*
 her.N.SG face.N.SG
 “her face”

(2.50) *miene beste leedkes*
 my-PL best-PL song-DIM.PL
 “my best songs”

(2.51) *uns’* *Wappen* *mit disse drei Bläder*
 our.N.SG coat of arms.N.SG with these three leaves
 “our coat of arms with these three leaves”

Some linguists might wonder why I call the type of pronoun used in this possessive construction possessive pronoun instead of regarding it as the genitive form of the personal pronoun. In chapter 1.2, I explained that I find the use of the term *genitive* for all sorts of different possessive constructions very unfortunate because it suggests that they all involve some form of case marking which may not be true after all (just consider the number of different possessive constructions discussed in section 2.1). Modern Low Saxon has lost most case distinctions and most dialects only preserve a distinction between nominative and accusative. There is thus no separate genitive case, neither assigned by verbs nor by adjectives or prepositions. The different possessive constructions discussed in section 2.1 use various different strategies of

possessive marking. But none of these strategies except that of the obsolete real genitive constructions functions like prototypical case marking. The construction that comes closest is probably the s-possessive¹² but I will argue in section 2.4 that it does not involve case marking. This would leave only the possessive pronouns as potential genitive case forms of the personal pronouns. There are several arguments why using the term *possessive pronoun* rather than *genitive pronoun* seems more intuitive. First, the only function of this paradigm of pronominal forms is indeed to indicate the possessor in the possessive pronoun construction and to link possessor and possessum phrases in the possessive linker construction. The special form of the pronoun is thus a kind of possessive marking and the term *possessive pronoun* hence seems like the natural choice. Second, there is no genitive case in the nominal paradigm of modern Low Saxon (see section 2.4). If we analyze the possessive pronouns as genitive case forms we have to assume a split between the nominal and the pronominal paradigms which might make the formal analysis less elegant.¹³ Third, as shown in examples (2.52)–(2.55) the possessive pronoun agrees with the possessum phrase in number, gender, and case,¹⁴ i.e. it takes part in the concord within the nominal phrase. It seems less confusing to speak of a possessive pronoun with accusative case than of a genitive pronoun exhibiting accusative concord with the head noun.¹⁵

(2.52) *he geht sienen Weg*
 he goes his-M.SG.ACC way.M.SG.ACC
 “his way”

¹²The related German and English s-possessive constructions are traditionally regarded as genitive forms (Drosdowski et al. 1995, pp. 240–245; Quirk et al. 1984, p. 192). But see section 2.4 for a discussion of whether the traditional analysis has to be revised.

¹³Moreover, Low Saxon would have to be considered a typologically “strange” language in that it would have preserved a separate genitive case but no separate dative case according to this analysis (cf. Hawkins 2004, chapter 4).

¹⁴Gender, number, and case distinctions in the paradigm of the possessive pronoun are relatively reduced and partly optional as explained below.

¹⁵If we analyze the possessive pronouns as genitive case forms we could model their concord with the possessum phrase as a kind of case stacking (cf. e.g. Sadler and Nordlinger 2003).

- (2.53) **he geht siene* *Weg*
 he goes his-PL.ACC/his-F.SG.ACC way.M.SG.ACC
 “he goes his way”
- (2.54) *denn kreeg Oma ehren Kopp hooch*
 then got grandma her-M.SG.ACC head.M.SG.ACC high
 “then grandma raised her head”
- (2.55) **denn kreeg Oma ehr Kopp hooch*
 then got grandma her.M.SG.NOM head.M.SG.ACC high
 “then grandma raised her head”

In my opinion, there is no sensible use for the term *genitive* in modern Low Saxon and I will therefore use *possessive pronoun* throughout this thesis.

As already shown in examples (2.52)–(2.55), the possessive pronoun agrees with the head noun of the possessum phrase in number, gender, and case by carrying certain (optional) inflectional suffixes. Moreover, it also encodes information about the possessor in the form of its stem: for the forms that refer to the interlocutors of a speech situation – i.e. the first and second person pronouns – only number is distinguished, whereas the third person singular pronoun also agrees in gender with its antecedent. The possessive pronouns thus exhibit a kind of symmetrical agreement behavior: on the one hand, they show pronominal agreement with their antecedent or the situationally evoked entity they refer to¹⁶ and thus provide information about the possessor; on the other hand they also take part in the concord within the whole possessive phrase by agreeing with the possessum phrase in number, gender, and case¹⁷ thus encoding information about the possessum. The form of the stem *mien-* (my) e.g. indicates that the possessor is first person singular (i.e. the speaker). If this stem is combined with the agreement suffix *-e* the resulting form *miene* also

¹⁶See Bresnan 2001, p. 150-160 for a short discussion of pronominal agreement. This kind of agreement is usually analyzed as involving so-called index features in HPSG; cf. Pollard & Sag (1994).

¹⁷First and second person possessums are not possible in this construction.

signals that the possessum is either plural or feminine singular. In table (2.60), I give an overview of the whole possessive pronoun paradigm including different dialectal variants but abstracting away from phonetic or orthographic variants.

An important point to note is that in most dialects number, gender, and case distinctions are quite reduced. Moreover, as I have indicated with parentheses in table (2.60), most forms can optionally be used without agreement inflections depending on the dialect in question. In many dialects, both forms with and without agreement inflection occur and their choice does not seem to depend on syntactic or morphological factors; cf. examples (2.56) and (2.57) which stem from one and the same text.

(2.56) *use* *Mütz*
 our-F.SG.ACC cap.F.SG.ACC
 “our cap”

(2.57) *us* *Näs*
 our nose.F.SG.ACC
 “our nose”

But although noun phrase concord might be a disappearing phenomenon in modern Low Saxon, a formal analysis of the Low Saxon nominal phrase must still be able to model the ungrammaticality of examples like (2.58) and (2.59).

(2.58) **ehre* *Mann*
 her.F.SG.NOM husband.M.SG.NOM
 “her husband”

(2.59) **sienen* *Fru*
 his.M.SG.ACC wife.F.SG.ACC
 “his wife”

(2.60) Overview of the possessive pronoun paradigm

	Possessor				
	Singular				
	1	2	3		
Possessum			M	F	N
M.SG.NOM	mien	dien oew je	sien	eer hör	sien
M.SG.ACC	mien(en)	dien(en) oew(en) je	sien(en)	eer(en) hör(en)	sien(en)
F.SG.NOM/ACC	mien(e)	dien(e) oew(e) je	sien(e)	eer(e) hör(e)	sien(e)
N.SG.NOM/ACC	mien	dien oew je	sien	eer hör	sien
PL.NOM/ACC	mien(e)	dien(e) oew(e) je	sien(e)	eer(e) hör(e)	sien(e)
	Plural				
	1	2	3		
M.SG.NOM	us(e) uns(e) unser	ju(e) jun juch inke	eer hör jüm jümmer		
M.SG.ACC	us(en) uns(en) unsern	ju(en) jun jugen inken	eer(en) hör(en) jüm jümmer(en)		
F.SG.NOM/ACC	us(e) uns(e) unser(e)	ju(e) jun(e) jug(e) ink(e)	eer(e) hör(e) jüm jümmer(e)		
N.SG.NOM/ACC	us uns unser	ju jun juch ink	eer hör jüm jümmer		
PL.NOM/ACC	us(e) uns(e) unser(e)	ju(e) jun(e) jug(e) ink(e)	eer(e) hör(e) jüm jümmer(e)		

The first requirement for a formal syntactic analysis of the possessive pronoun construction is thus that it has to be able to elegantly model the agreement facts outlined above.

I now turn to the constituent structure of the possessive pronoun construction. The first generalization is that the pronominal possessor phrase always precedes the possessum phrase. Moreover, it also obligatorily precedes the modifiers that the possessum phrase may contain such as adjective phrases, prepositional phrases, relative clauses, number words, etc.; cf. examples (2.61)–(2.64).

(2.61) *siene rodens Schlippen*
 his-PL.ACC red-PL.ACC ribbon-PL.ACC
 “his red ribbons”

(2.62) *Dien vriendinnechies op school*
 your.PL.NOM friends-DIM.PL.NOM at school
 “your little friends at school”

(2.63) *Twee Besöker schicken uns [ehr egen wiehnachtliche
 two visitors sent us their.PL.ACC own Christmas
 Fredensgedichten, de dat Lengens na Freden un Sekerheit
 peace poems which the longing for peace and security
 graad in düsse Tied utdrückt].*
 especially in this time express
 “Two visitors sent us their own Christmas peace poems which express the
 longing for peace and security especially in this time.”

(2.64) *ehr twee Johr*
 her.PL.ACC two year.PL.ACC
 “her two years”

If we exclude examples of the possessive linker construction from the discussion for a moment, there are only very few elements that can precede a possessive pronoun in the possessive phrase namely a handful of quantifiers such as *all* (all), *beid* (both),

and *heel* (whole); cf. examples (2.65)–(2.67). Especially the predeterminer *all* is very common and used in all dialects.

(2.65) *all diene Tronen*
 all your-PL.ACC tear-PL.ACC
 “all your tears”

(2.66) *hil eer weazn*
 whole her.N.SG.ACC being.N.SG.ACC
 “her whole being”

(2.67) *bei ziene knökkige haande*
 both his-PL.ACC bony-PL.ACC hand-PL.ACC
 “both his bony hands”

Most importantly, the possessive pronouns are in complementary distribution with words that are normally classified as determiners namely definite and indefinite articles, demonstratives¹⁸, and some question words; cf. examples (2.68)–(2.75).¹⁹

(2.68) **sien de Naver*
 his the neighbor

(2.69) **de sien Naver*
 the his neighbor

(2.70) **sien een Naver*
 his a neighbor

(2.71) **een sien Naver*
 a his neighbor

(2.72) **sien düsse Naver*
 his this neighbor

(2.73) **düsse sien Naver*
 this his neighbor

(2.74) **sien welke Naver*
 his which neighbor

(2.75) **welke sien Naver*
 which his neighbor

¹⁸Just as modern German and older English (cf. Plank 1992), Low Saxon allows a demonstrative to co-occur with a possessive pronoun in certain cases. This construction seems to be stylistically marked and extremely rare. I have only found one example in my corpus: *Du Herr un König hest in [dütt Dien egen Manifest]* (you my lord and king have in [this your own manifesto]...). Because of the rarity of such examples I will leave the question how they should best be analyzed for further research. Cf. Plank (1992) for a discussion of the determiner status of possessive pronouns in various languages.

¹⁹Some of these examples can also be interpreted as possessive linker constructions in which case they are grammatical namely examples (2.69), (2.71), and (2.73)

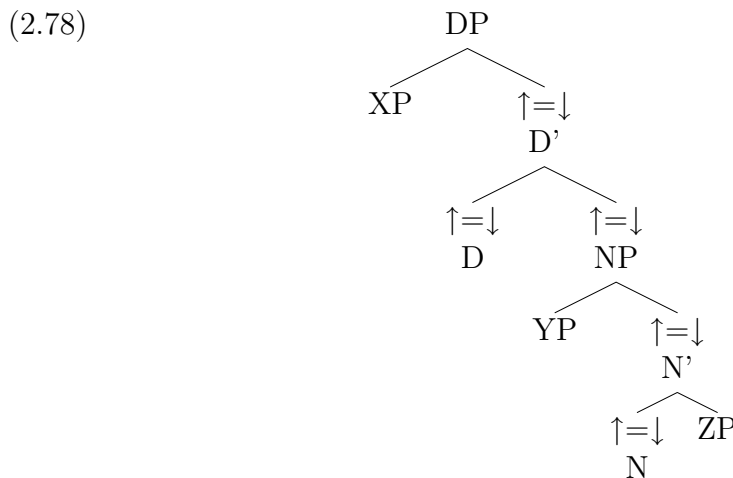
Moreover, the quantifier *all* is also able to precede the definite article and demonstratives; cf. examples (2.76) and (2.77).

(2.76) *all dei Johren*
 all the years
 “all the years”

(2.77) *all düsse Lüüd*
 all these people
 “all these people”

I therefore conclude that the possessive pronouns are also determiners and occupy the same phrase-structural position as the definite article.²⁰ As Low Saxon possesses a substantially developed system of determiners and most nominal phrases obligatorily have to contain a determiner, a DP analysis (cf. Abney 1987) of the Low Saxon nominal phrase suggests itself. This is also in line with current work in LFG on related languages such as English (cf. Bresnan 2001, chapter 6).

Figure (2.78) is a schematic representation of the phrasal structure generally assumed in a DP analysis (cf. Bresnan 2001, section 6.2.1).



Nouns are content words that belong to the lexical category N; articles, demonstratives, and pronouns are highly frequent function words that belong to the functional

²⁰In my opinion, this is a very plausible analysis for Low Saxon with its elaborate system of determiners. Haspelmath (1999) however correctly argues that not all cases of possessor-article complementarity can be explained in terms of constituent structure position.

category D(eterminer). Both D and N are nominal categories and as such they are assumed to be co-heads (cf. section 1.5), i.e. information from both D and the head of the embedded NP projects into the f-structure that corresponds to the whole DP. I will refer to the XP in figure (2.78) as the specifier of the DP and to the ZP as the complement of the NP.²¹

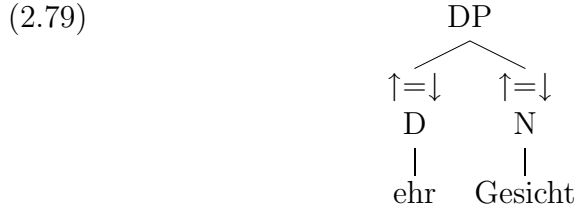
As already repeatedly stated above, the possessive pronoun agrees with the head noun of the possessive phrase in number, gender, and case. It does not agree with the head noun in person because the possessum phrase has to be non-pronominal which automatically excludes first and second person possessums. There seem to be several explanations for these facts. First of all, the speaker(s) and hearer(s) in a speech situation are highly accessible and do not need a reference point to facilitate identification by the hearer(s). There is thus no need to have a first or second person possessum or indeed any pronominal possessum because most pronouns are used to refer to referents that have already been established in the discourse.²² Second, the DP structure I have introduced above automatically excludes pronominal possessums because the co-head of the possessive pronoun is an NP and not another DP. And third, pronouns not only cannot be used as possessums they usually also cannot be modified by any other elements (but see section 2.5).

The structure of example (2.49) which is a simple instance of the possessive pronoun construction is depicted in figure (2.79).²³

²¹I will not be concerned with the question of what can appear in the YP, the specifier of the NP in figure (2.78), nor the question whether this structural position is needed at all.

²²But see section 2.5 for possible counterexamples.

²³The LFG principle of economy of expression prunes away redundant, non-branching c-structure nodes such as D', NP and N' in example (2.79); cf. Bresnan (2001, chapter 6).



As the possessive pronoun and the possessum phrase are co-heads, it is straightforward to model the pronoun's agreement with the head of the possessum NP. We can enforce this agreement by including such features as PERS(on), NUM(ber), and GEND(er) in the lexical entry of the possessive pronoun. These will be projected into the same f-structure as the corresponding features of the possessum NP. If the possessive pronoun and the head of the possessum phrase contain conflicting values for these agreement features the DP will not be well-formed. Figure (2.80) shows two example lexical entries for two forms of the Low Saxon possessive pronoun paradigm.

(2.80)

	ehr	D	(↑ POSS PRED)='PRO'		mienen	D	(↑ POSS PRED)='PRO'
			(↑ POSS PERS)=3				(↑ POSS PERS)=1
			(↑ POSS NUM)=sg				(↑ POSS NUM)=sg
			(↑ POSS GEND)=f				(↑ NUM)=sg
			(↑ NUM)=sg				(↑ GEND)=m
			(↑ GEND)=n				(↑ CASE)=acc
			(↑ CASE)=acc				

Assuming the following lexical entry for the noun *Gesicht*, the f-structure that corresponds to the c-structure in (2.79) looks like (2.82).

(2.81)

	Gesicht	N	(↑ PRED)='face-of<(↑ POSS)>'
			(↑ GEND)=n
			(↑ NUM)=sg
			(↑ CASE)=acc

$$(2.82) \left[\begin{array}{l} \text{PRED} \quad \text{'face-of}<(\uparrow \text{POSS})>' \\ \text{GEND} \quad \text{n} \\ \text{NUM} \quad \text{sg} \\ \text{CASE} \quad \text{acc} \\ \text{POSS} \quad \left[\begin{array}{l} \text{PRED} \quad \text{'PRO'} \\ \text{PERS} \quad 3 \\ \text{GEND} \quad \text{f} \\ \text{NUM} \quad \text{sg} \end{array} \right] \end{array} \right]$$

As shown in example (2.83), the possessive pronoun *mienen* from figure (2.80) does not go together with the noun *Gesicht*. The phrase **mienen Gesicht* is excluded by the LFG grammar because the agreement features specified by *mienen* and by *Gesicht* have non-compatible values which results in a violation of the uniqueness condition.

$$(2.83) \begin{array}{c} \text{DP} \\ \swarrow \quad \searrow \\ \uparrow=\downarrow \quad \uparrow=\downarrow \\ \text{D} \quad \text{N} \\ | \quad | \\ \text{mienen} \quad \text{Gesicht} \end{array} \left[\begin{array}{l} \text{PRED} \quad \text{'face-of}<(\uparrow \text{POSS})>' \\ \text{GEND} \quad \mathbf{n} \mid \mathbf{m} \\ \text{NUM} \quad \text{sg} \\ \text{CASE} \quad \text{acc} \\ \text{POSS} \quad \left[\begin{array}{l} \text{PRED} \quad \text{'PRO'} \\ \text{PERS} \quad 1 \\ \text{NUM} \quad \text{sg} \end{array} \right] \end{array} \right]$$

The pronominal agreement of the possessive pronoun with an antecedent is also modeled according to standard LFG theory. The information about the possessor encoded in the form of the possessive pronoun is projected into a grammatical function called POSS(essor) inside the f-structure that corresponds to the whole possessive phrase;²⁴ cf. the f-structure in (2.82). Because of the pronominal nature of the possessive pronoun it projects a pronominal PRED feature: $(\uparrow \text{POSS PRED}) = \text{'PRO'}$. It also projects its pronominal agreement features into the POSS function thus narrowing the range of possible antecedents or situationally evoked entities that the possessive

²⁴See section 2.6 for a short discussion of the nature of the grammatical function POSS.

pronoun can be co-indexed with.²⁵ The possessive pronoun *ehr-* with the pronominal agreement features 3.SG.F for the possessor can therefore only refer back to an antecedent that is also 3.SG.F.

In the same way as other determiners, the possessive pronouns can be used on their own in a kind of “elliptical” construction. In example (2.84), the possessive pronouns do not occur with a following explicit possessum phrase.²⁶ Instead both the possessor and the possessum are identified pronominally and have to be filled in from the context.

- (2.84) *jeedeen Oort kreeg **sienen**, de Deerten un Planten*
 every kind got his-M.SG.ACC, the animal-PL and plant-PL
ehren**, de Minschen **ehren
 theirs-M.SG.ACC the man-PL theirs-M.SG.ACC
 “Every kind got its own, the animals and plants theirs, the people theirs.”

Although no explicit possessum phrase occurs in example (2.84) the possessive pronouns still agree with the implicit possessum *Segen* (M.SG) (blessing) and thereby help to identify it as the correct possessum. Nevertheless, I do not assume that this construction really involves ellipsis of any kind. It seems more elegant to model the double-pronominal behavior of possessive pronouns directly.²⁷ A very straightforward account of it can be given, if we assume that possessive pronouns exhibit a kind of

²⁵In this thesis, I will only state that an expression is interpreted pronominally but I will not be concerned with the way reference resolution could be modeled in LFG.

²⁶Strictly speaking, the form *sienen* in example (2.84) is a little unexpected because the antecedent for its possessor is *jeedeen Oort* which is feminine singular instead of masculine singular. This could be due to some sort of semantic agreement (cf. also section 2.3) or be a mistake by the author.

²⁷Note though that the pronominal behavior of the “possessum part” of the possessive pronouns is somewhat special in that there is usually no referential identity between the antecedent and the “elided” possessum but only a type identity. E.g. in (2.84) the plants, animals, and men all receive a blessing but not one and the same blessing but each their own. This interpretation is most probably due to the fact that the possessive relation is exclusive, i.e. every possessum usually has only one possessor (cf. Taylor 1989).

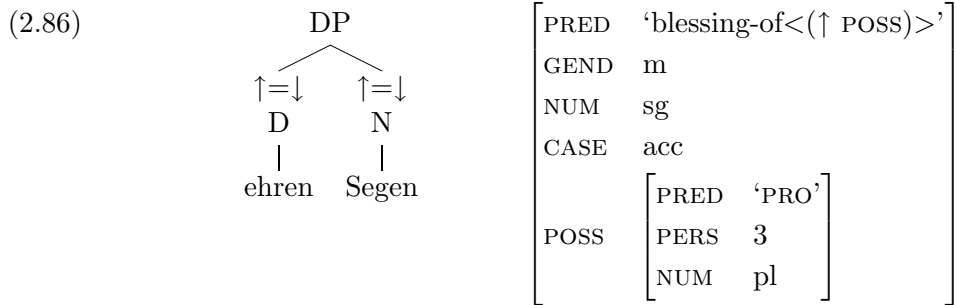
nominal pro-drop behavior²⁸ (cf. the short discussion of verbal pro-drop in section 1.5). If the possessive pronoun is used together with a possessum phrase it simply agrees with the head noun of the possessum phrase. If however the possessive pronoun is used without a possessum phrase it supplies a pronominal PRED feature for the f-structure which corresponds to the whole possessive phrase in addition to the pronominal PRED feature that it projects into the POSS function. Only a slight modification of the lexical items I have assumed for possessive pronouns is necessary. The lexical entry in figure (2.85) is parallel to those in figure (2.80) except that it contains an additional optional equation that projects a pronominal PRED feature²⁹ into the f-structure that corresponds to the whole DP.

(2.85) ehren D (↑ POSS PRED)=‘PRO’
 (↑ POSS PERS)=3
 (↑ POSS NUM)=pl
 ((↑ PRED)=‘PRO-of<(↑ POSS)>’) ← *optional PRED feature*
 (↑ GEND)=m
 (↑ NUM)=sg
 (↑ CASE)=acc

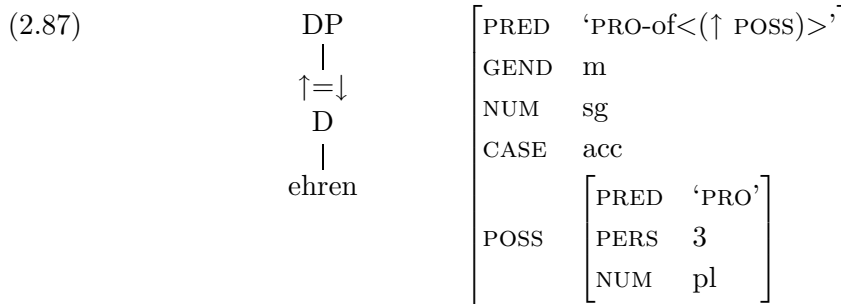
If this possessive pronoun is used with a following possessum phrase as in figure (2.86) the additional PRED feature does not appear in the resulting f-structure because the possessum phrase itself supplies one.

²⁸The term *pro-drop* has already been used in the analysis of nominal phrases by Chisarik and Payne (2001) in connection with Hungarian possessive constructions and in a recent paper on Luiseño possessive constructions by Kathol (2001).

²⁹The value of the PRED feature – ‘PRO-of<(↑ POSS)>’ – requires a possessive argument. For a short discussion of this implementation cf. section 2.6.



If no possessum phrase is present the possessive pronoun has to supply a pronominal PRED feature for the f-structure of the whole DP in order to satisfy the completeness condition; cf. figure (2.87).



So far, I have treated the forms of a possessive pronoun used with and without following possessum phrase as one and the same lexical item. In most dialects and for most members of the possessive pronoun paradigm this choice seems indeed justified because the addition of an optional PRED feature allows for an economical description of the facts without having to duplicate lexical entries. However, in some dialects special forms of the possessive pronoun are used if no explicit possessum phrase follows. In many dialects the agreement inflection on the possessive pronoun is no longer optional when it is used on its own because the agreement inflection helps to narrow down the possible possessums or is even needed to disambiguate the pronoun as in the constructed examples (2.88) and (2.89) where the form *uns* would otherwise be interpreted as an accusative personal pronoun (Reinhard F. Hahn, p.c.).

(2.88) *Hest du unsen all seihn?*
 have you ours-M.SG.ACC already seen
 “Have you already seen ours?”

(2.89) *Hest du uns all seihn?*
 Have you us / *ours already seen
 “Have you already seen us?” and not “Have you already seen ours?”

Sometimes, a different kind of agreement inflection has to appear when the possessive pronoun is not followed by a possessum phrase. In some dialects, such special forms are used only in the neuter singular in which case the strong neuter singular inflection *-t* or *-s* is added; cf. the Plautdietsch example in (2.90).

(2.90) *en daut Wuat waut jie heare es nich mient*
 and the.N.SG word.N.SG that you hear is not mine-N.SG.STR
 “And the word that you hear is not mine.”

There are also some dialects that like English do not show agreement with an implicit possessum but use only one special independent form of the possessive pronoun for all uses without a following possessum phrase. This is exemplified by the following sentences in the dialect of Groningen where the special form *mient*³⁰ (which on first sight seems to carry a neuter singular inflection) is also used with an implicit masculine possessum, cf. example (2.91), and even with a plural possessum as in example (2.92).

(2.91) *Doar stonden we te wachten tot heur voader en*
 there stood we to wait until her.M.SG father.M.SG and
mient noa hoes komen zollen.
 mine home come should
 “There we stood waiting until her father and mine would come home.”

³⁰The suffix *-ent* seems to be used with all sorts of independently used pronominal elements in the dialect of Groningen, e.g. *welkent* (which one); cf. the online grammar Broeslezzen Grunnegs at <http://home.hetnet.nl/~doddemaeltje/Veurwoord.htm>.

- (2.92) *Ain van mienent was om mie nou ais serieus te verdaipen*
 one of mine was for me now once seriously to delve
in de politiek.
 into the politics
 “One of mine (my resolutions) was to seriously delve into politics for once
 now.”

The appearance of special forms like *mienent* makes a simple analysis of this construction as ellipsis difficult if not impossible. However, with my approach there is a very straightforward treatment of all forms that are restricted to either appear only with or only without a possessum phrase. Those that cannot appear without a possessum phrase such as the uninflected form of the second person plural possessive pronoun *us/uns* do not contain an optional pronominal PRED feature for the possessum so that they cannot themselves satisfy the completeness condition and therefore cannot appear without a possessum phrase. Those forms that can only appear on their own such as *mienent* have to contain a non-optional pronominal PRED feature³¹ so that using them together with a possessum phrase would result in a violation of the uniqueness condition. Figure (2.93) gives the lexical entry of *uns* as a possessive pronoun, figure (2.94) that of *mienent*.

- (2.93) *uns* D (↑ POSS PRED)=‘PRO’
 (↑ POSS PERS)=1
 (↑ POSS NUM)=pl
 (↑ GEND)=m ← *no pronominal PRED feature*
 (↑ NUM)=sg
 (↑ CASE)=nom

³¹This analysis is parallel to the analysis of so-called pronominal incorporation in verbal forms (cf. Bresnan 2001, pp. 144–146). For pronominal forms in the dialect of Groningen, we could even assume that the suffix *-ent* contains just the following functional equation: (↑ PRED)=‘PRO-of<(↑ POSS)>’ for uses with possessive pronouns or (↑ PRED)=‘PRO’ for uses with other independent pronouns.

- (2.94)
- mienent D (↑ POSS PRED)='PRO'
 (↑ POSS PERS)=1
 (↑ POSS NUM)=sg
 (↑ PRED)='PRO-of<(↑ POSS)>' ← *non-optional PRED feature*
 (↑ GEND)=m
 (↑ NUM)=sg
 (↑ CASE)=nom

The non-optional pronominal PRED feature in the lexical entry in figure (2.94) ensures that *mienent* cannot be used with a following possessor phrase; cf. figure (2.95).

- (2.95)
- | | | | | |
|---------|------|--------------------|-----------------------|-------|
| DP | [| PRED | ‘father-of<(↑ POSS)>’ |] |
| ↑=↓ | | ‘PRO-of<(↑ POSS)>’ | | |
| D | GEND | m | | |
| | NUM | sg | | |
| mienent | CASE | nom | | |
| ↑=↓ | POSS | [| PRED | ‘PRO’ |
| N | | PERS | 1 | |
| | | NUM | sg | |
| voader |] | | | |

However, there is a problem with this straightforward treatment of forms like *mienent*. In some dialects, besides not being able to co-occur with a following head noun, these independent forms cannot be modified at all. Independent forms such as *sient* or *mienent* in these dialects are completely out when they are followed by adjective phrases even though no head-noun is present in the embedded NP; cf. example (2.96).³² Instead, the ordinary form of the possessive pronoun has to be used, cf. example (2.97), and the completeness condition is presumably satisfied by some other mechanism such as a pronominal PRED feature supplied by the inflection on the adjective(s) that I will not discuss in this thesis.

³²Examples (2.96)–(2.100) were constructed by myself. Most of my informants judged examples (2.96), (2.98), and (2.99) to be ungrammatical.

(2.96) *Hinnerk hett twee Kinner. *Sient öllste geht all no*
 Hinnerk has two child.N-PL his-N.SG.STR oldest goes already to
School.

school

“Hinnerks has two children. His oldest one already goes to school.”

(2.97) *Hinnerk hett twee Kinner. Sien öllste geht all no*
 Hinnerk has two child.N-PL his.N.SG oldest goes already to
School.

school

“Hinnerks has two children. His oldest one already goes to school.”

According to one of my informants, examples like (2.98)–(2.99) where the independent form of the pronoun is used with a modifying PP or a relative clause are extremely marginal (Reinhard F. Hahn, p.c.). It seems that the possessive pronouns in dialects like his are quite typical pronouns in that they cannot provide a PRED for a DP that is modified by APs, PPs, or relative clauses. Only the demonstratives are often used without a noun as co-head but with further modification; cf. example (2.100).

(2.98) *Hinnerk un Anna hebbt beid twee Kinner. ?*Sien/Sient op de*
 Hinnerk and Anna have both two child.N-PL his.N.SG(.STR) on the
Bank dor is all twee Johr old.

bench there is already two years old

“Hinnerk and Anna both have two children. His one on the bench there is already two years old.”

(2.99) *Hinnerk un Anna hebbt beid twee Kinner. ?*Sien/Sient dat*
 Hinnerk and Anna have both two child.N-PL his.N.SG(.STR) that
ik good kenn is all twee Johr old.

I good know is already two years old

“Hinnerk and Anna both have two children. His one that I know well is already two years old.”

- (2.100) *Hinnerk un Anna hebbt beid twee Kinner. Dat op
 Hinnerk and Anna have both two child.N-PL DEM.N.SG.NOM on
 de Bank dor is all twee Johr old.
 the bench there is already two years old
 “Hinnerk and Anna both have two children. That one on the bench there is
 already two years old.”*

There are several ways of modeling these facts in LFG in accordance with the structures I have proposed here. One solution is to assign a different phrase structure category such as e.g. D_{ind} to the forms of the possessive pronouns that are used without a noun as co-head and to insert this category only into a D' rule that does not allow a following NP co-head; cf. figure (2.101).

$$(2.101) \quad D' \longrightarrow D_{ind} \\ \uparrow = \downarrow$$

Another possibility which is more in line with the LFG tradition of allowing relatively unrestrained c-structures while using appropriate f-structure constraints is to assume that most pronominal forms cannot be modified because of some functional constraints. These constraints can be implemented formally by including the constraining equation in figure (2.102) which forbids an f-structure to contain adjuncts into the lexical entries of such pronominal forms. Note that non-adjuncts are out anyway because the pronominal predicate presumably does not select for them.

$$(2.102) \quad \neg(\uparrow \text{ ADJ})$$

Note that both solutions require separate lexical entries for possessive pronouns used with and without noun co-heads. But these additional lexical entries seem to be well motivated and the resulting “duplication” of lexical entries is quite plausible because we are dealing with relatively frequent closed-class items. Figure (2.103)

shows the revised lexical entry for the form *mienent* as needed for dialects that do not allow a modification of an independent possessive pronoun occurring without a noun.

(2.103)

mienent D (↑ POSS PRED)=‘PRO’
 (↑ POSS PERS)=1
 (↑ POSS NUM)=sg
 (↑ PRED)=‘PRO-of<(↑ POSS)>’ ← *non-optional PRED feature*
 ¬(↑ ADJ) ← *no further modification allowed*
 (↑ GEND)=m
 (↑ NUM)=sg
 (↑ CASE)=nom

But not all dialects (or speakers) disallow uses of a special independent form of the possessive pronoun with further modification. According to another informant of mine the following examples are grammatical in his dialect (Friedrich W. Neumann, p.c.).

(2.104) *Dit sünd Anna ehr Bääker. Ehrt grote /*
 this are Anna her.PL book.N-PL her-N.SG.STR big-N.SG.WK
grotet is all twei. (=“ehr grote Bauk”).
 big-N.SG.STR is already broken

“These are Anna’s books. Her big one is already broken.” (= her big book)

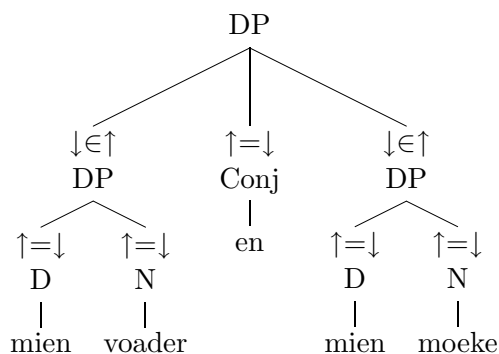
(2.105) *Dit sünd Anna ehr Bääker. Ehrt op den Disch is*
 this are Anna her.PL book.N-PL her-N.SG.STR on the table is
dat düürste. (=“ehr Bauk op den Disch”).
 the most expensive

“These are Anna’s books. Hers on the table is the most expensive.” (=“her book on the table”)

For the latter dialects, no special measures have to be taken to forbid modification and the equation in figure (2.102) is not part of the lexical entries of the independent possessive pronouns.

Before I will discuss the possessive linker construction in the next section, I want to take a brief look at the interaction of coordination and the possessive pronoun construction. There are several possible coordinate structures that involve a possessive pronoun construction. The most straightforward one is an ordinary DP coordination where one or both of the DPs contain a possessive pronoun phrase; cf. figures (2.106) and (2.107).³³

(2.106)

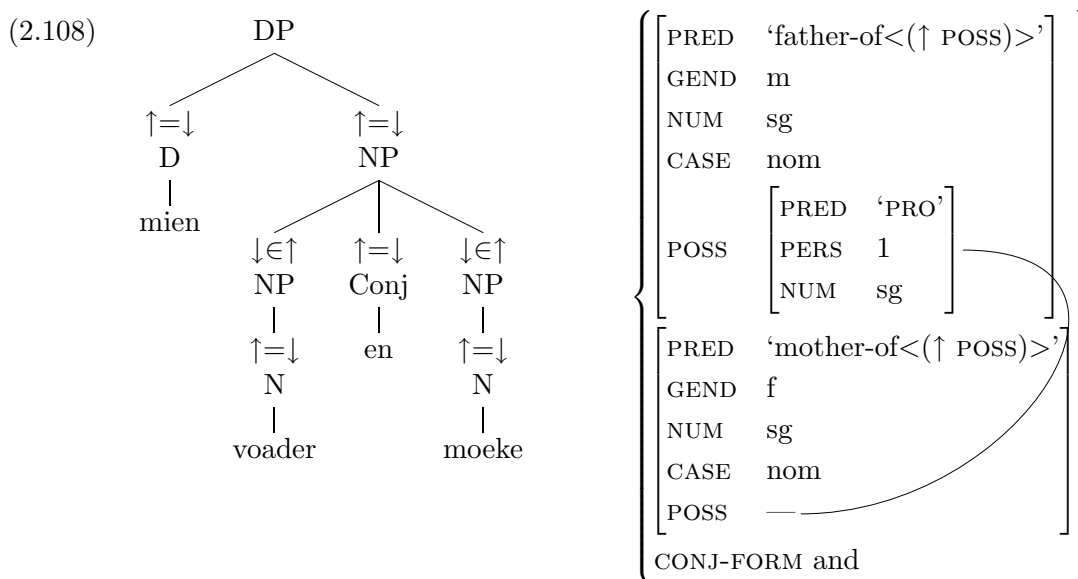


(2.107) $\left[\begin{array}{l} \left[\begin{array}{l} \text{PRED} \text{ 'father-of}<(\uparrow \text{POSS})>' \\ \text{GEND} \text{ m} \\ \text{NUM} \text{ sg} \\ \text{CASE} \text{ nom} \\ \text{POSS} \left[\begin{array}{l} \text{PRED} \text{ 'PRO'} \\ \text{PERS} \text{ 1} \\ \text{NUM} \text{ sg} \end{array} \right] \end{array} \right] \\ \left[\begin{array}{l} \text{PRED} \text{ 'mother-of}<(\uparrow \text{POSS})>' \\ \text{GEND} \text{ f} \\ \text{NUM} \text{ sg} \\ \text{CASE} \text{ nom} \\ \text{POSS} \left[\begin{array}{l} \text{PRED} \text{ 'PRO'} \\ \text{PERS} \text{ 1} \\ \text{NUM} \text{ sg} \end{array} \right] \end{array} \right] \\ \text{CONJ-FORM and} \end{array} \right]$

³³This example is a slightly modified version of (2.108)

In LFG, coordination is modeled with sets of f-structures.³⁴ In this example, the set contains two complete and coherent f-structures which both constitute a possessive pronoun phrase independently of each other.

Figure (2.108) shows the structure of a possessive pronoun phrase that contains a complex possessum phrase. The complex possessum phrase presumably involves NP coordination. The information from the possessor phrase is distributed over the two conjoined possessum phrases by a general LFG mechanism which ensures that functional equations that provide information about a set of f-structures are distributed over the members of the set (cf. Butt et al. 1999, pp. 139–141).



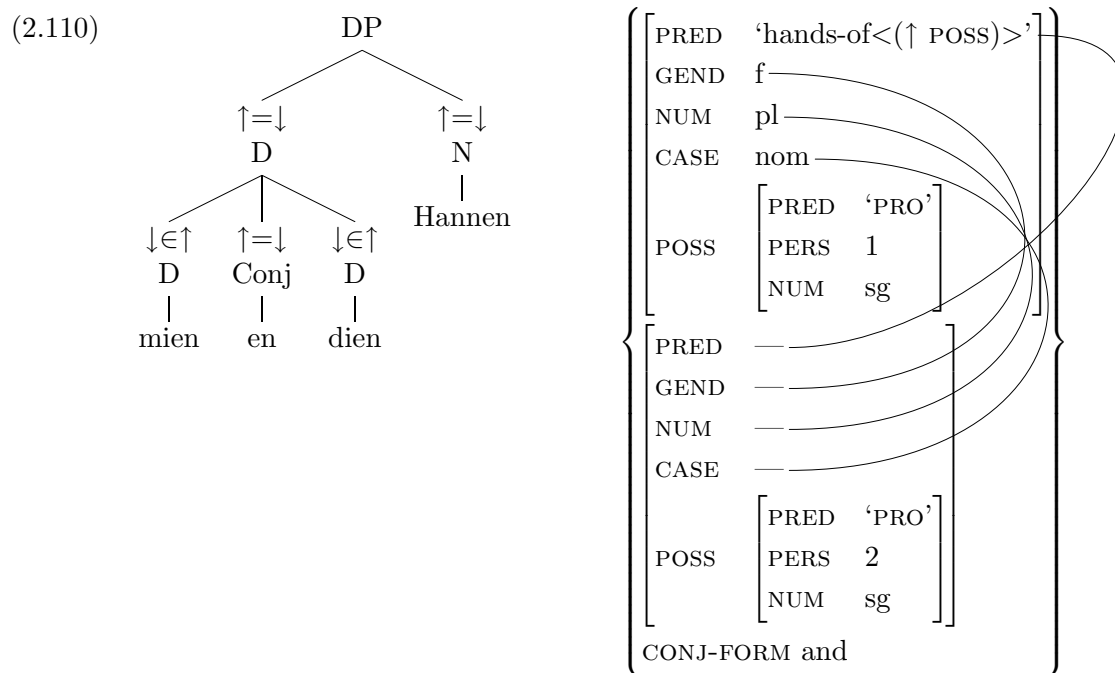
Even pronominal possessor phrases occasionally appear coordinated, cf. example (2.109), although the appropriate plural possessive pronoun is of course used in most cases. There are in principle two possible structures for such examples. Either they involve a head coordination of D or again a DP coordination where the first D has to be interpreted as a doubly pronominally used possessive pronoun (cf. above). I suspect that both possibilities occur and that there would be an intonation difference

³⁴Cf. e.g. Butt et al. (1999, chapter 8) for an overview of the treatment of coordination in LFG.

them. Special independent forms of the possessive pronouns are predicted to occur only in a DP coordination.³⁵

- (2.109) *So beegent sik dien un mien Hannen.*
 Thus meet 3.REFL your.PL and my.PL hand-PL
 “Thus meet your and my hands.”

The structure of an example with D coordination of the pronominal possessor phrases is shown in figure (2.110). As possessor phrase and possessum phrase in the possessive pronoun construction are co-heads the analysis is largely parallel to that in figure (2.108) which involves coordination in the possessum phrase. This time the information from the possessum phrase is distributed over the set of conjoined possessor phrases.



³⁵A coordination of two independent forms of possessive pronouns only such as *mient en dien* is structurally ambiguous between a D and a DP coordination. However, the resulting f-structures are the same. In an actual implementation of a computational LFG grammar, one of the two possibilities could be excluded.

2.3 The possessive linker construction

In this section, I will give a comprehensive discussion of the possessive linker construction building on the analysis of the possessive pronoun construction described in the preceding section. I will present an LFG analysis that not only is an elegant structural description of this construction but also clearly shows the synchronic and diachronic connections between it and the possessive pronoun construction.

First of all, I would like to clarify another terminological issue. Norde (1997) uses the term *resumptive possessive pronoun construction* for what I call the *possessive linker construction*. I agree with her analysis that this construction is indeed a nominal construction used to express possession in the narrower and wider sense.³⁶ I do also agree that it involves forms of the possessive pronouns³⁷ although I will argue below that these forms do not actually function as pronouns in this construction in modern Low Saxon. What I do not agree with is the term *resumptive*. Although constructions which are usually analyzed as involving some form of resumptive pronouns (e.g. left dislocation and relative clauses) are believed to have been involved in the diachronic development of this construction (see below) and even synchronically it is sometimes used in such a context, cf. examples (2.111) and (2.112),³⁸ the possessive linker construction can be used in all contexts where ordinary DPs can occur.

(2.111) *der is nen aandern kameroad van miej, den*
 there is another comrade of me, DEM.M.SG.ACC
ziene oalde leu pröatn ok nog Hollaands
 his-PL.NOM old-PL.NOM people.PL.NOM spoke also still Dutch

³⁶See Norde (1997, chapter 3) for a thorough discussion of this type of construction in several Germanic languages.

³⁷In fact, I originally planned to call this construction the *pronominal linker construction* but decided against that name for reasons that will soon become clear.

³⁸In order to keep the glosses short I will use the English possessive pronouns as glosses for the linker as I did for the ordinary possessive pronouns. It seems that the gloss *her.N.SG.NOM* is more intelligible than *3.F.SG.POSS.N.SG.NOM* or *3.F.SG.LK.N.SG.NOM*.

met mekáar as de keender der bieje warn
with each other when the children there near were

“There is another comrade of mine, his old folks (i.e. parents) also spoke Dutch with each other when the children were with them.”

- (2.112) *De'n Jung sien Vadder, – já,*
the.M.SG.ACC boy.M.SG.ACC his.M.SG.NOM father.M.SG.NOM well
de Alwine ehr Brögam is,
the.F.SG.ACC Alwine.F.SG.ACC her.M.SG.NOM bridegroom.M.SG.NOM is
de is noch ne dor, de is noch op See, op
DEM.M.SG.NOM is still not there DEM.M.SG.NOM is still at sea on
grote Fohrt.
big voyage

“The boy’s father, – well, Alwine’s bridegroom is, he still isn’t back, he is still at sea, on a big voyage.”

DPs which contain possessive linker phrases can be used as subjects, as in example (2.113), as objects, example (2.114), as objects of prepositions, example (2.115), and within bigger possessive phrases (or other complex nominal phrases); cf. example (2.116).

- (2.113) *De'n Herrn sien Naam is hillig.*
the.M.SG.ACC Lord.M.SG.ACC his.M.SG.NOM name.M.SG.NOM is holy.
“The Lord’s name is holy.”

- (2.114) *Ik glööv, dat wi tohoop Gott sien*
I believe that we together God.M.SG.ACC his.N.SG.ACC
Wort höört hebbt.
word.N.SG.ACC heard have
“I believe that we have heard God’s word together.”

- (2.115) *De grugelige Bang' in mudder ehr Ogen seih*
the terrible fear in mother.F.SG.ACC her.PL.ACC eye-PL.ACC see
ick noch hüt.
I still today
“I can still see the terrible fear in (my) mother’s eyes.”

- (2.116) [*de Fru van* [[*usen* *Wärt*] *sienen*
 the wife of our-M.SG.ACC innkeeper.M.SG.ACC his-M.SG.ACC
 Söhne]]
 son.M.SG.ACC
 “the wife of our innkeeper’s son”

Moreover, possessive linker phrases are usually pronounced within one intonation unit and not divided into two separate intonation units as would be expected for typical constructions which contain resumptive pronouns such as e.g. left dislocation. This evidence shows that on the clausal level the possessive linker construction has no (synchronic) connection to typical resumptive constructions.

But I think that even in the DP itself the pronominal linker does not actually resume anything. In my opinion, the linker itself is no longer a referring expression in modern Low Saxon. My first argument for this view is that the linker cannot “refer” to any entity but the one that is denoted by the possessor that immediately precedes it. If we actually analyzed the linker as a real pronoun, i.e. a referring expression, we would have to assume that it is always obligatorily bound by the preceding possessor phrase. In my opinion, if the reference of a pronominal element is always determined by its immediate syntactic context, there is no real motivation for the language user to treat it as a referring expression. Instead, the syntactic structure alone is sufficient to ensure the correct interpretation and the linker is analyzed not as a referring expression but as a possessive marker. My second argument is that native speakers do not perceive the linker as a second “act of reference” to the entity that is the possessor (Friedrich W. Neumann and Eldo Neufeld, p.c.). I therefore think that synchronically no resumption is involved in the possessive linker construction and that the term *resumptive possessive pronoun construction* accordingly is not a very good choice.

I now turn to the structural analysis of the possessive linker construction. As all examples above show, it always contains a form of the “possessive pronoun” which

has to stand between a preceding possessor phrase and a following possessum phrase. Because of its rigid placement in between the two parts of the possessive phrase and its symmetric agreement behavior (see below), I consider it a linker construction³⁹ (cf. also Koptjevskaja-Tamm 2001, p. 963).

In those dialects that have still preserved a distinction between nominative and accusative case (usually only in the masculine singular forms), the possessor phrase in the possessive linker construction has to appear in accusative case; cf. examples (2.117) and (2.118). Some dialects of Southern Westphalia still retain a separate dative case.⁴⁰ In these dialects, the possessor phrase in the possessive linker construction bears dative case, as exemplified by a well-known saying in (2.119) and an example from my corpus (2.120). This is similar to examples from German dialects and German colloquial language; cf. example (2.121).

(2.117) *De'n* *Jung* *sien* *Vadder*
 the.M.SG.ACC boy.M.SG.ACC his.M.SG.NOM father.M.SG.NOM
 “the boy’s father”

(2.118) **De* *Jung* *sien* *Vadder*
 the.M.SG.NOM boy.M.SG.NOM his.M.SG.NOM father.M.SG.NOM
 “the boy’s father”

(2.119) [*dem* *enen* *sine* *Ule*] *is*
 the.M.SG.DAT one-M.SG.DAT his-F.SG.NOM owl.F.SG.NOM is
 [*dem* *annern* *sine* *Nachtigall*]
 the.M.SG.DAT other-M.SG.DAT his-F.SG.NOM nightingale.F.SG.NOM
 “one man’s owl is another man’s nightingale” (Saltveit 1983, p. 317)

³⁹Section 2.5 will show that the preposition *van/von/vun*-PP is more flexible in its placement.

⁴⁰Plautdietsch constructions like *daem Maun siene Uage* (the man’s eyes) on first sight also seem to be constructed with a dative possessive phrase. However, Plautdietsch as most dialects of Low Saxon has lost the distinction between accusative and dative. But in contrast to other dialects it has generalized the old dative forms to become the new objective case not only for pronouns but also for nouns. Some varieties of Plautdietsch also use old accusative and old dative forms interchangeably (cf. Neufeld 2000, p. 13).

- (2.120) *Iut [dem annern sinner Hiut] es*
 out the.M.SG.DAT other-M.SG.DAT his-F.SG.DAT skin.F.SG.DAT is
geot Roemen snuien.
 good belt cut
 “It is easy to make belts out of other people’s skin.”

- (2.121) *dem Alten seine Website*
 the.M.SG.DAT old-M.SG.DAT his-F.SG.NOM website.F.SG.NOM
 “the old fella’s website”

Some very progressive dialects like East Frisian have lost the distinction between nominative and accusative in the nominal paradigm (and only retain it with pronouns); cf. example (2.122).

- (2.122) *He daalt up de Lööw sien Rügg un fangt an*
 he lands on the.M.SG lion.M.SG his.M.SG back.M.SG and starts
t’ schellen.
 to scold
 “He lands on the lion’s back and starts to scold (him).”

The generalization that emerges seems to be that the possessor phrase will be coded with the most oblique case left in a particular dialect. Stated in other terms, a dialect will choose that one of its (remaining) cases which is lowest on the following case hierarchy (cf. also Hawkins 2004, chapter 4; Weerman and de Wit 1999, p. 1181).

- (2.123) Nom > Acc > Dat > (Gen)⁴¹

The agreement patterns within the possessive linker construction are parallel to those in the possessive pronoun construction. Again the linker takes part in the nominal concord and agrees with the possessum phrase in number, gender, and case (cf.

⁴¹It is an open question whether a construction similar to the possessive linker construction could be used with a possessor phrase in genitive case when Low Saxon still had a productive genitive. Cf. Norde (1997, p. 58) for Middle Dutch examples. The German example (2.121) is not a counterexample to this hierarchy because genitive case is no longer used in most forms of colloquial German.

the preceding and following examples). The linker also agrees with the immediately preceding possessor phrase in person and number. This is parallel to the pronominal agreement of the possessive pronouns with an antecedent but in the possessive linker construction the antecedent is always present in the immediately preceding context and no reference resolution has to be performed to identify a suitable antecedent. Interestingly, the agreement of the linker with the possessor phrase can occasionally be semantic agreement rather than strictly formal syntactic agreement; cf. example (2.124).

- (2.124) *daut* *Folkj* *aeare* *oonbewiste*
 the.N.SG.ACC people.N.SG.ACC their-PL.ACC unconscious-PL.ACC
Sind
 sin.PL.ACC
 “the people’s unconscious sins”

However, in the same text the verb shows singular agreement when it takes *Folkj* (the people) as subject; cf. example (2.125).

- (2.125) *aus* *daut* *Folkj* *sach* *waut* *Paul* *jedone*
 when the.N.SG.NOM people.N.SG.NOM saw.3.SG what Paul done
haud
 had
 “when the people saw what Paul had done”

In most dialects the agreement of the linker with the possessor phrase seems to be strictly syntactic; cf. examples (2.126) and (2.127).

- (2.126) *un* *steiht* *denn* *richtig* *up* *dat* *Volk*
 and stands then really on the.N.SG.ACC people.N.SG.ACC
sien *Siet*
 its.F.SG.ACC side.F.SG.ACC
 “and then really is on the side of the people”

- (2.127) *achter de Welt ehren Loop*
 behind the.F.SG.ACC world.F.SG.ACC her-M.SG.ACC course.M.SG.ACC
 “behind the course of the world”

In what follows, I will not discuss instances of semantic agreement because they occur only very rarely and it is outside the scope of this thesis to discuss an LFG theory of semantic agreement.

After I have given an exposition of the case-marking and agreement facts, the next question is what kinds of phrases can act as possessor and possessum phrases in this construction. Examples (2.128)–(2.131) show that the possessive linker construction can be used with all sorts of possessor phrases, e.g. demonstratives as in example (2.128), wh-pronouns as in (2.129), relative pronouns as examples in (2.130) and (2.131), proper nouns as in (2.132), and full DPs as in example (2.134).

- (2.128) *[de ehr Dackel] wull partout*
 DEM.PL.ACC their.M.SG.NOM dachshund.M.SG.NOM wanted at all
dat nich doon, wat all Dackel von Natur doot
 that not do, what all dachshund.PL by nature do
 “those people’s dachshund didn’t at all want to do what all dachshunds do by nature”

- (2.129) *Un [wull sien Hart] dat noch nich kann,*
 and who.ACC his.N.SG.NOM heart.N.SG.NOM that still not can
kickt Kinner sük as Vorbild an.
 looks at children 3.REFL as role model on
 “And whose heart still isn’t able to do this looks at children as a role model.”

- (2.130) *Dit is de Mann, [den sien*
 this is the.M.SG.NOM man.M.SG.NOM RELPRN.M.SG.ACC his.N.SG.ACC
Huus] wi sehn hebbt.
 house.N.SG.ACC we seen have
 “This is the man whose house we have seen.” (Reinhard F. Hahn, p.c.)

- (2.131) *de* *Gott,* *vör* *[den*
 the.M.SG.NOM God.M.SG.NOM in front of RELPRN.M.SG.ACC
siene *Herrlichkeit]* *de* *Minsch* *heel* *lütt* *is*
 his-F.SG.ACC glory.F.SG.ACC the man wholly little is
 “God in front of whose glory man is wholly insignificant”
- (2.132) *Dorbi* *hett* *dat* *in* *[Fritz* *Lau* *sien* *Öllernhuus]*
 yet has it in Fritz Lau.M.SG.ACC his.N.SG.ACC home.N.SG.ACC
nich *mehr* *as* *twee* *Böker* *gaeven.*
 not more than two books existed
 “Yet there were no more than two books in Fritz Lau’s (parents’) home.”
- (2.133) *Avers* *[de* *Südhalvkugel* *ehr*
 but the.F.SG.ACC southern hemisphere.F.SG.ACC her.F.SG.NOM
Tied] *kümmt* *ok.*
 time.F.SG.NOM comes also
 “But the southern hemisphere’s time also comes.”

Sometimes though relatively rarely, the possessive linker is even used with preceding personal pronouns as possessor phrases. Several different cases have to be distinguished. One reason for using a pronoun in this construction seems to be contrastive focus on the pronominal possessor phrase; cf. example (2.134) with the focus particle *blots* (only) and stress on *se*.⁴²

- (2.134) *Un* *blots* *se* *ehr* *Rupen* *heff* *ik* *doot*
 and only 3.F.SG.ACC her.PL.ACC caterpillar-PL.ACC have I dead
maakt.
 made
 “And only her caterpillars, I have killed.”

According to my informant Friedrich W. Neumann, the pronoun preceding the linker cannot be nominative in his dialect; cf. the ungrammatical example (2.135) with the grammatical example (2.136).

⁴²The pronoun *se* in example (2.134) is a nominative only form in some dialects. However, it is also used as an accusative form in others.

(2.135) **he sien book*
 3.M.SG.NOM his.N.SG book.N.SG
 “his book”

(2.136) *em sien book*
 3.M.SG.ACC his.N.SG book.N.SG
 “his book”

According to one of my Plautdietsch speaking informants, examples like (2.136) are not possible in Plautdietsch at all (Eldo Neufeld, p.c.).

Some cases where the linker co-occurs with a preceding personal pronoun as possessor seem to involve the need for disambiguation. In many dialects of northern Germany, the 3.PL form *Se* is used as a honorific form to address strangers.⁴³ To distinguish the corresponding possessive pronoun from the usual third person possessive pronoun, people often use the combination *Se Ehr*; cf. example (2.137).

(2.137) *Hier kummt Se Ehr Text hen.*
 Here comes 2.HON.ACC your.HON.M.SG text.M.SG DEICT
 “Your text will be put here.”

This combination is apparently considered a new complex possessive pronoun by at least some speakers who systematically write it as one word accordingly; cf. example (2.138).

(2.138) *Trüch kaamt Se denn mit den “Trüch”-Knoop in*
 back come 2.HON then with the back button in
SeEhr Browser-Symbolliet.
 your.HON.F.SG browser’s control panel.F.SG
 “You then get back by pushing the “back”-button on your browser’s control panel.”

⁴³This use is probably a loan from German. Other dialects use the 2.PL form *Ji* instead.

However, the need for disambiguation does not seem to be involved in other dialects. The following example shows that the combination of *se ehr* is also used for ordinary 3.F.SG or 3.PL pronominal possessors.

- (2.139) *De Fraktschoon vun de Union hett se*
 the.F.SG parliamentary party.F.SG of the Union has 3.F.SG.ACC
ehrn Afordneten Hohmann uutslaten.
 her.M.SG.ACC delegate-M.SG.ACC Hohmann expelled
 “The parliamentary party of the CDU has expelled its/their delegate
 Hohmann.”

This use of *se ehr* seems to be a peculiarity of either the dialect of Bremen or the Low Saxon radio news by Radio Bremen whose texts contained most of the examples.

In many northern dialects, a new possessive pronoun has emerged for 3.PL to replace the older form *ehr*. The new form *jümehr/jemehr* appears to be a transparent combination of the accusative personal pronoun *jüm/jem* plus the old possessive pronoun *ehr*.⁴⁴ This seems to be a clear instance of reanalysis and grammaticalization that has led to a new less ambiguous 3.PL possessive pronoun distinct from the 3.SG.F possessive pronoun *ehr*. Good evidence for this account is that the new form is not only used for emphasis but in all contexts; cf. example (2.140).

- (2.140) *De Kinner wörrn flüggriep un gängen so bilütten jümehr egen*
 The children became fledged and went so slowly their own
Weeg.
 way
 “The children became fledged and slowly but surely went their own ways.”

It seems that some dialects have fully generalized this new form and even use it as a linker, cf. example (2.141), while a split seems to have occurred in other dialects

⁴⁴In some texts, it is still perceived as such and accordingly written as two words: *jüm ehr / jem ehr*.

where the usual 3.PL possessive pronoun is *jümehr* but the linker still has the form *ehr* (Reinhard F. Hahn, p.c.).

(2.141) *Dit is Peiter und Anna jemmer Bauk.*
 this is Peter and Anna their.N.SG book.N.SG
 “This is Peter and Anna’s book.” (Friedrich W. Neumann, p.c.)

(2.142) *[[jümehr Grootmodder un Onkel] ehr Bloot]*
 their grandmother and uncle their.N.SG blood.N.SG
 “their grandmother and uncle’s blood”

In many dialects the new form often seems to be reduced phonologically, too; cf. example (2.143). The emergence of the new forms *jümehr/jemehr* thus really seems to be a classic example of reanalysis and grammaticalization.

(2.143) *Nu mußst du linnern anner jemme Pien*
 now must you ease others their.F.SG.ACC pain.F.SG.ACC
 “Now you have to ease other people’s pain.”

To conclude this rather long excursus about pronominal possessor phrases, let me point out that a diachronic study of the emergence of the *jümehr/jemehr* forms also has to take into account the fact that the form *jüm* can also by itself be used as a possessive pronoun either in the second or third person plural; cf. examples (2.144) and (2.145).

(2.144) *leggt af jüm Kraam*
 lay down your stuff
 “Lay down your stuff!”

(2.145) *Aver nüms weet, wonaem se afblaeven sünd. De Wind weiht
 jem Spoor’n weg.*
 but nobody knows where they gone have the wind blows
 their tracks away
 “But nobody knows where they have gone. The wind blows away their tracks.”

How far the possessive linker construction has been integrated into the whole grammatical system of some Low Saxon dialects is shown by the following two examples where a possessive linker construction is used with more postposition-like, highly grammaticalized possessum phrases.

(2.146) *om Christus sien haulwe*
 for Christ his sake
 “for Christ’s sake”

(2.147) *Anna er weng*
 Anna her because of
 “because of Anna” (Saltveit 1983, p. 320)

Let me now briefly demonstrate the possible complexity of the possessor and possessum phrases. That the possessor phrase can in principle be very complex is shown by the following three examples in which the possessor phrase contains: another possessive construction (2.148), a DP which contains a PP adjunct (2.149), and a noun that is modified by a relative clause (2.150).

(2.148) *[[Paul siene Sesta] aea Saen]*
 Paul.M.SG.ACC his-F.SG.ACC sister.F.SG.ACC her.M.SG son.M.SG
 “Paul’s sister’s son”

(2.149) *[den oostpreuß’schen Buurn Steiner ut
 the.M.SG.ACC East Prussian.M.SG.ACC farmer-M.SG.ACC Steiner from
 de “Elchniederung”] sien Snack*
 the Elchniederung his.M.SG talk.M.SG
 “the East Prussian farmer Steiner from the Elchniederung’s words”
 = “the words of the East Prussian farmer Steiner from the Elchniederung”

(2.150) *[[[Jehaun dee uk Markus jenant woat] siene
 John.M.SG.ACC who also Mark called was his-F.SG.ACC
 Mutta Marie] aea Hus]*
 mother.F.SG.ACC Mary her.N.SG house.N.SG
 “John who was also called Mark’s mother Mary’s house”
 = “the house of Mary the mother of John who was also called Mark”

Especially examples like (2.148) show that the structure of the possessive linker construction is left recursive. We can always make the possessor phrase itself be another possessive linker phrase. This is not possible with the possessum phrase. A right-recursive structure as outlined in figure (2.151) is not a sensible analysis for this construction.

(2.151) * [Jehann sien [Broder sien [Süster ehr Hus]]]

The possessum phrase behaves exactly like the possessum phrase of a possessive pronoun construction. The linker is in complementary distribution with determiners such as articles and demonstratives; cf. examples (2.152)–(2.155). Moreover, the linker necessarily has to appear between possessor phrase and possessum phrase. Neither can it be left out nor substituted with other determiners; cf. examples (2.156) and (2.157).

(2.152) **Jehann sien dat Hus*
 John.M.SG.ACC his.N.SG the.N.SG/DEM.N.SG house.N.SG
 “John’s house” / “this house of John”

(2.153) **Jehann dat sien Hus*
 John.M.SG.ACC the.N.SG/DEM.N.SG his.N.SG house.N.SG
 “John’s house” / “this house of John”

(2.154) **Jehann sien een Hus*
 John.M.SG.ACC his.N.SG a.N.SG house.N.SG
 “a house of John’s”

(2.155) **Jehann een sien Hus*
 John.M.SG.ACC a.N.SG his.N.SG house.N.SG
 “a house of John’s”

(2.156) **Jehann Hus*
 John.M.SG.ACC house.N.SG
 “John’s house”

- (2.157) **Jehann* *dat* *Hus*
 John.M.SG.ACC the.N.SG house.N.SG
 “John’s house”

In fact, if we leave away the possessor phrase from a possessive linker construction we always obtain a grammatical possessive pronoun construction;⁴⁵ cf. examples (2.158)–(2.160) which have been produced by removing the possessor phrase from examples (2.148)–(2.150).

- (2.158) *aea* *Saen*
 her.M.SG son.M.SG
 “her son”

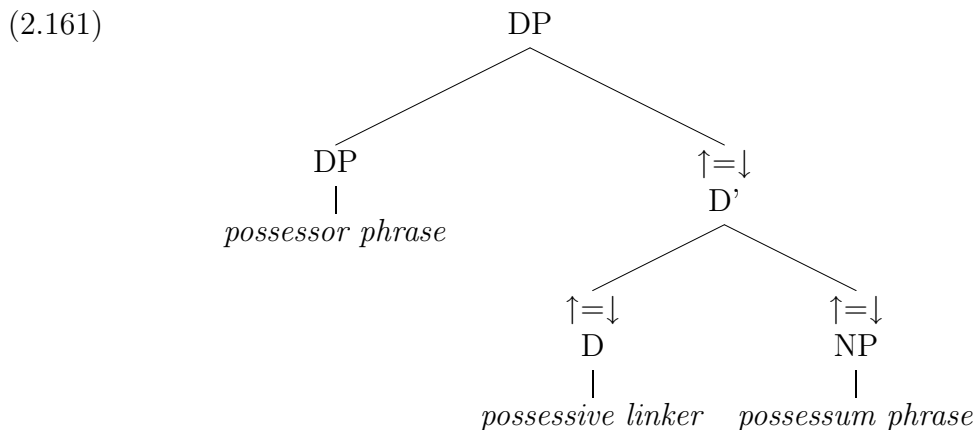
- (2.159) *sien* *Snack*
 his.M.SG talk.M.SG
 “his words”

- (2.160) *aea* *Hus*
 her.N.SG house.N.SG
 “her house”

The possessive linker construction can therefore be analyzed as the possessive pronoun construction plus something extra. So far, two important connections between these two constructions have been pointed out: they both contain forms of the possessive pronoun although not necessarily used in the same way (see below) and a large part of their structure is in fact identical.

Following Weerman and de Wit (1999, p. 1171), Norde (1997), and others, I propose the following structure for the possessive linker construction.

⁴⁵But see above for examples of a split between possessive pronouns and linkers in some dialects.



This structure is identical to that of the possessive pronoun construction but additionally contains a possessor phrase in the specifier of DP. The linker is again analyzed as a co-head of the possessum NP and its concord with the possessum phrase is modeled by feature unification as in section 2.2.

In my corpus, I have found one example that might be problematic for the structure given in (2.161). Many of the possessive pronoun phrases in the corpus occur with the preceding quantifier *all*. The use of *all* with the possessive linker construction in contrast seems to be avoided (Reinhard F. Hahn, p.c.). However, one example from a translation of a poem by Eichendorff contains an *all* intervening between the possessor phrase and the linker; cf. example (2.162). This example is judged to be awkward by one of my informants (Reinhard F. Hahn, p.c.). Moreover, all my informants chose prepositional possessive construction when I asked them to translate phrases like *all his father's children*.

(2.162) *Swiggt de Minschen all ehr Larm*
 be silent the.PL.ACC people-PL.ACC all their.M.SG noise.M.SG
 “(when) all the people’s noise is silent”

(2.163) *All den Mann siene Kinner sünd nu*
 all the.M.SG.ACC man.M.SG.ACC his-PL.NOM child-PL.NOM are now
al groot.
 already adult

“All the man’s children have already grown up.”

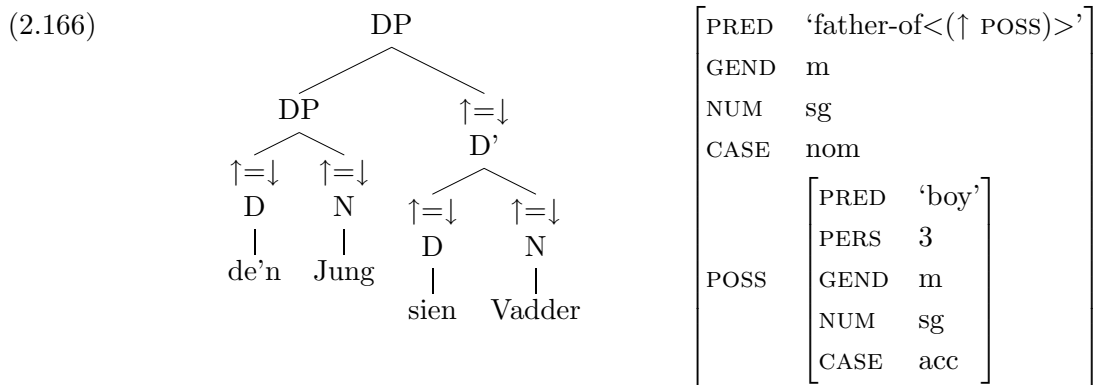
- (2.164) *All mien Vadder siene Frünnen sünd*
 all my.M.SG.ACC father.M.SG.ACC his-PL.NOM friend-PL.NOM have
kamen.
 come
 “All my fathers friends have come.”

According to my informant Reinhard F. Hahn (p.c.) the examples in (2.163) and (2.164) are grammatical which indicates that if one wants to use a quantifier like *all* with the possessive linker construction it may precede the whole construction. The situation in modern Low Saxon seems to be that there is a very strong syntactic connection between possessor and possessive phrase but that in rare cases an element like *all* can intervene between them although this is strongly dispreferred. I will leave the question how an example like (2.162) should best be analyzed for further research.

I propose that instead of analyzing the linker as a pronoun that is merely co-indexed with the possessor phrase, it should be analyzed as a form of possessive marking that does not function as a pronoun anymore. This idea can be implemented in LFG in a very straightforward manner by assuming that the possessive pronouns always project a POSS function but only optionally provide a pronominal PRED feature for this POSS function. This is another case of “nominal” pro-drop behavior but this time with regard to the possessor. Note that rare examples of the possessive linker construction with a pronominal possessor phrase such as (2.136) seem to be used in circumstances that are parallel to those in which subject pronouns are used in verbal pro-drop languages namely under contrastive focus and with stress on the pronouns. Figure (2.165) shows the modified form of the lexical entry for the possessive pronoun/linker *sien* (his).

- (2.165) sien D ((↑ POSS PRED)=‘PRO’) ← *now optional PRED feature*
 (↑ POSS PERS)=3
 (↑ POSS GEND)=m
 (↑ POSS NUM)=sg
 (↑ GEND)=m
 (↑ NUM)=sg
 (↑ CASE)=nom

If the possessive pronoun/linker is used in the possessive linker construction as in figure (2.166) it projects agreement features both into the matrix f-structure of the whole phrase and into the f-structure which contains the information about the possessor and thus enforces agreement with both possessor phrase and possessum phrase.⁴⁶ However, in contrast to the possessive pronoun construction, the possessor is not interpreted pronominally, i.e. it contains a non-pronominal PRED feature, because the information from the possessor phrase in the specifier of DP is also projected into the POSS function.



In figure (2.166), I have tacitly assumed that the information from the possessor DP in the specifier of the matrix DP is projected into the POSS function but I have not yet provided a mechanism to do this. I assume that the possessor phrase in the

⁴⁶The possibility of semantic agreement of the linker with the possessor phrase requires special treatment that I will not discuss here. Note though that the same kind of agreement behavior also occurs in English subject-verb agreement which is usually also modeled by feature unification: *The police are great people.*

possessive linker construction is identified structurally by its position in the construction and not by its case because accusative or dative case-marking is of course not only used to mark the possessor phrase in this construction but also e.g. for objects of verbs and prepositions. It is therefore more appropriate to add a functional equation to the DP c-structure rule instead of assuming e.g. that it is a lexical fact about accusative or dative case-marked nouns that they can be used in a possessor phrase. The most straightforward formulation of the functional annotation on the DP rule is shown in figure (2.167).

$$(2.167) \quad \text{DP} \longrightarrow \begin{array}{cc} \text{DP} & \text{D}' \\ (\uparrow \text{POSS})=\downarrow & \uparrow=\downarrow \end{array}$$

However, this equation is not sufficient because it would allow a possessor phrase to occur without any accompanying possessive marking, i.e. without a linker between possessor and possessum phrase which is clearly ungrammatical; cf. example (2.168).

$$(2.168) \quad *de'n \quad \quad Jung \quad \quad \quad Vadder$$

the.M.SG.ACC boy.M.SG.ACC father.M.SG.NOM

“the boy’s father”

This structure is however not ruled out by the rules I have proposed so far; cf. figure (2.169).

$$(2.169) \quad \begin{array}{c} \text{DP} \\ \swarrow \quad \searrow \\ (\uparrow \text{POSS})=\downarrow \quad \uparrow=\downarrow \\ \text{DP} \quad \text{D}' \\ \swarrow \quad \searrow \quad \downarrow \\ \uparrow=\downarrow \quad \uparrow=\downarrow \quad \uparrow=\downarrow \\ \text{D} \quad \text{N} \quad \text{N} \\ | \quad | \quad | \\ de'n \quad Jung \quad Vadder \end{array} \quad \left[\begin{array}{l} \text{PRED} \quad \text{'father-of}<(\uparrow \text{POSS})>' \\ \text{GEND} \quad \text{m} \\ \text{NUM} \quad \text{sg} \\ \text{CASE} \quad \text{nom} \\ \text{POSS} \quad \left[\begin{array}{l} \text{PRED} \quad \text{'boy'} \\ \text{PERS} \quad \text{3} \\ \text{GEND} \quad \text{m} \\ \text{NUM} \quad \text{sg} \\ \text{CASE} \quad \text{acc} \end{array} \right] \end{array} \right]$$

Cross-linguistically most possessive constructions make use of some form of explicit possessive marking (cf. Koptjevskaja-Tamm 2001, p. 961). Plank (1980) argues that possessive constructions (as one kind of attributive construction) have to be appropriately and unambiguously marked:

Paradigmatically non-distinctive, but at any rate textually ambiguous, encoding of the grammatical relation A [i.e. attribute]⁴⁷ (vis-a-vis its head) is intolerable [...] (Plank 1980, p. 310)

and further:

Paradigmatically non-distinctive, or textually ambiguous, encoding of *constructionally* governed grammatical relations is intolerable. (Plank 1980, p. 311)

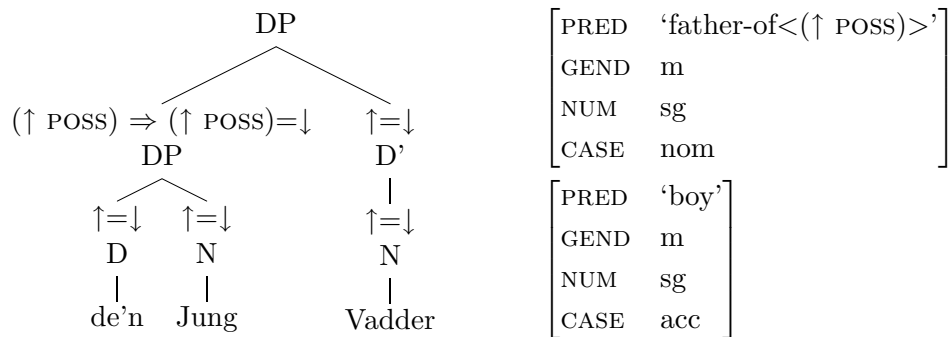
These considerations and the fact that all possessive constructions of Low Saxon have some form of explicit possessive marking let me conclude that it is indeed the possessive marking – in this case the possessive linker – that establishes the possessive relation and projects the POSS function. I propose to formalize this view by annotating the specifier of DP with the revised functional equation shown in figure (2.170).

$$(2.170) \quad \text{DP} \longrightarrow \begin{array}{cc} \text{DP} & \text{D}' \\ (\uparrow \text{POSS}) \Rightarrow (\uparrow \text{POSS})=\downarrow & \uparrow=\downarrow \end{array}$$

This revised functional equation only allows the information from the possessor DP to be projected into the POSS function if the POSS function has already been established by the possessive linker. If no possessive linker is present as in example (2.168) the information from the possessor DP is projected only into its own f-structure which is not connected in any way to the f-structure of the matrix DP. The result is an unconnected and thus not well-formed f-structure; cf. figure (2.171).

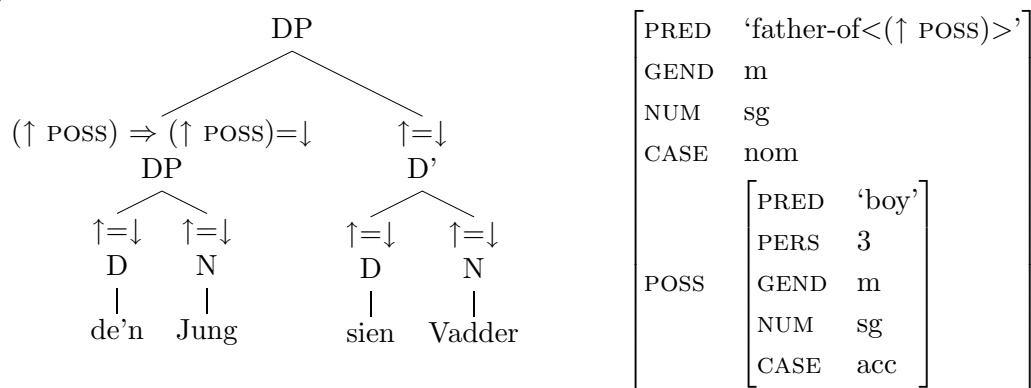
⁴⁷Clarification is added by the author not part of the original text by Plank.

(2.171)



If however a possessive linker occurs between possessor and possessum phrase it can establish the POSS function which is then further filled with information from the possessor phrase; cf. figure (2.172).

(2.172)



A question I have not addressed so far is where the accusative or dative case of the possessor phrase comes from. One possibility would be to add another functional equation to the DP rule; cf. figure (2.173).

(2.173)
$$\text{DP} \longrightarrow \begin{array}{c} \text{DP} \qquad \text{D}' \\ (\uparrow \text{ POSS}) \Rightarrow (\uparrow \text{ POSS})=\downarrow \quad \uparrow=\downarrow \\ (\downarrow \text{ CASE})=\text{acc} \end{array}$$

But as I will analyze the s-possessive construction in a parallel manner and its possessor phrase does not (consistently) occur in the accusative or dative,⁴⁸ I prefer

⁴⁸But see the discussion at the end of section 2.4.

to revise the lexical entry of the possessive linker once more to specify lexically that the possessor phrase has to stand in the accusative or dative case depending on the dialect in question. It seems reasonable to locate this information in the lexical entry of the possessive linker because this case-marking pattern only occurs in the possessive linker construction; see the revised entry of *sien* (his) in figure (2.174).

(2.174) *sien* D ((↑ POSS PRED)=‘PRO’)
 (↑ POSS PERS)=3
 (↑ POSS GEND)=m
 (↑ POSS NUM)=sg
 (↑ POSS CASE)=acc ← *added case feature of possessor phrase*
 ((↑ PRED)=‘PRO-of<(↑ POSS)>’)
 (↑ GEND)=m
 (↑ NUM)=sg
 (↑ CASE)=nom

The additional case feature proposed above raises the question whether we should posit separate lexical entries for the possessive pronouns and the possessive linkers. The answer to this question depends on whether the case feature in the value of the POSS feature would be ignored by a theory of pronominal agreement when the POSS f-structure’s PRED feature is pronominal because the case of the antecedent is of course only restricted by its local syntactic context and not by the possessive pronoun. If our LFG theory of pronominal agreement disregards case anyway, the additional case feature would not hurt. If however this additional case feature is not in line with the theory of pronominal agreement we want to assume, we can of course posit separate lexical entries for the linkers and only those would contain a POSS PRED feature that is optional and the additional requirement that the possessor phrase appear in the accusative or dative. Note that we have to assume separate lexical entries for pronouns and linkers in those dialects in which they differ in form anyway; cf. the pronoun *jümehr* vs. the linker *ehr* in example (2.142).

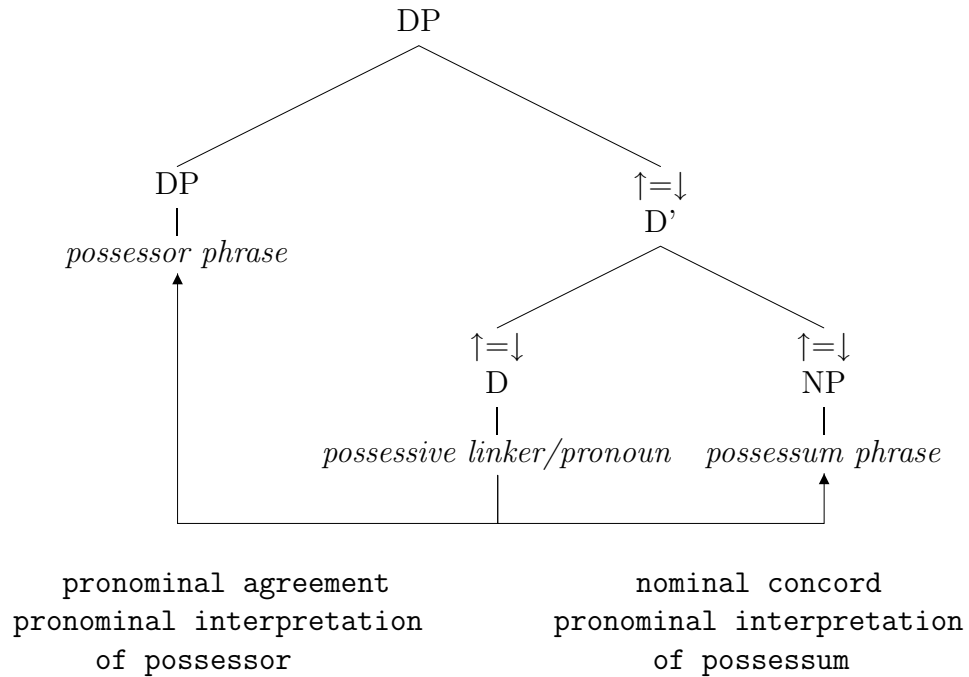
However, the behavior of the possessive linkers shows further parallels to that of the possessive pronouns. Consider the examples (2.175)–(2.177) where the linkers are used with a preceding possessor phrase but without a possessum phrase.

- (2.175) *As de Imm wegflagen wier, drückt he denn ok ganz*
 when the bee flown away was pressed he then also very
sachten siene Lippen up [Eva ehr].
 softly his-PL.ACC lip-PL.ACC on Eva.F.SG.ACC her.PL.ACC
 “When the bee had flown away he then also very softly pressed his lips on Eva’s.”
- (2.176) *daut Besprenjunksbloot daut baeta raet aus [Abel*
 the.N.SG sprinkling blood.N.SG that better saves as Abel.M.SG.ACC
sient]
 his.N.SG.NOM.STR
 “the sprinkling blood that saves better than Abel’s”
- (2.177) *Mien Öller lett sik dörch 13 deeln, [Fritz*
 My age.N.SG lets REFL.3.SG by 13 divide Fritz.M.SG.ACC
sien] dörch 23 un [Korl sien] dörch 33.
 his.N.SG.NOM by 23 and Korl.M.SG.ACC his.N.SG.NOM by 33
 “My age can be divided by 13, Fritz’s by 23 and Korl’s by 33.”
- (2.178) *Oabraham was [Isaak zien voader], Isaak*
 Abraham was Isaac.M.SG.ACC his.M.SG.NOM father.M.SG.NOM Isaac
[Joakob zient]
 Jacob.M.SG.ACC his
 “Abraham was Isaac’s father, Isaac was Jacob’s”
 (from <http://www.liudger.org/bouk/nt/matteus/1.1-17.html>)

The behavior of the linker without a following possessum phrase is exactly like that of the possessive pronouns; cf. section 2.2. Again some dialects use the same forms of the linker with and without a following possessum phrase, some use special forms e.g. with the neuter singular as Plautdietsch *sient* in example (2.176), and some use special forms of the linker throughout when there is no following possessum phrase; cf. example (2.178) from a Bible translation in the dialect of Groningen.

Essentially then, we can regard the Low Saxon possessive pronouns as highly versatile elements that encode information about both the possessor and the possessum, show roughly symmetric agreement behavior, and can be interpreted pronominally both for the possessor and the possessum; cf. the diagram in figure (2.179).

(2.179)



I will now give a few example lexical entries for all different types of possessive pronouns/linkers my theory has to be able to account for. For ease of exposition, I describe an imaginary dialect⁴⁹ which has specialized the form *jümehr* as 3.PL possessive pronoun and the form *ehr* as 3.PL linker. Moreover, the possessive pronouns/linkers in this dialect take an obligatory *-t* suffix in the neuter singular when they occur without a possessum phrase. The first lexical entry in figure (2.180) is that of a possessive pronoun/linker that is not specialized in any way, i.e. it can be used both with and

⁴⁹A dialect which requires all these different types of lexical entries may or may not exist. However, different dialects possess different combinations of the types of lexical entries I want to exemplify and for ease of exposition I have combined them here in one imaginary dialect.

without possessor phrase, with and without possessum phrase, or even without both.

- (2.180) sien D ((↑ POSS PRED)=‘PRO’) ← *optional pronominal possessor*
- (↑ POSS PERS)=3
 (↑ POSS GEND)=m
 (↑ POSS NUM)=sg
 (↑ POSS CASE)=acc
 ((↑ PRED)=‘PRO-of<(↑ POSS)>’) ← *optional pronominal possessum*
- (↑ GEND)=m
 (↑ NUM)=sg
 (↑ CASE)=nom

The second lexical entry in figure (2.181) is that of the possessive pronoun *jümehrn* which cannot be used as a linker but can be used with or without a following possessum phrase.

- (2.181) jümehrn D (↑ POSS PRED)=‘PRO’ ← *non-optional pronominal possessor*
- (↑ POSS PERS)=3
 (↑ POSS NUM)=pl
 ((↑ PRED)=‘PRO-of<(↑ POSS)>’) ← *optional pronominal possessum*
- (↑ GEND)=m
 (↑ NUM)=sg
 (↑ CASE)=acc

The third lexical entry in figure (2.182) can be used as a linker but cannot be used together with a following possessum phrase.

- (2.182)
- | | | | | |
|-------|---|-----------------------------|---|--|
| sient | D | ((↑ POSS PRED)=‘PRO’) | ← | <i>optional pronominal possessor</i> |
| | | (↑ POSS PERS)=3 | | |
| | | (↑ POSS GEND)=m | | |
| | | (↑ POSS NUM)=sg | | |
| | | (↑ POSS CASE)=acc | | |
| | | (↑ PRED)=‘PRO-of<(↑ POSS)>’ | ← | <i>non-optional pronominal possessum</i> |
| | | (↑ GEND)=n | | |
| | | (↑ NUM)=sg | | |
| | | (↑ CASE)=acc | | |

The fourth lexical entry in figure (2.183) cannot be used as a linker and has to occur with a following possessum phrase.

- (2.183)
- | | | | | |
|--------|---|---------------------|---|--|
| jümehr | D | (↑ POSS PRED)=‘PRO’ | ← | <i>non-optional pronominal possessor</i> |
| | | (↑ POSS PERS)=3 | | |
| | | (↑ POSS NUM)=pl | | |
| | | (↑ GEND)=n | ← | <i>no pronominal possessor at all</i> |
| | | (↑ NUM)=sg | | |
| | | (↑ CASE)=nom | | |

And last but not least, the lexical entry in figure (2.184) can only stand alone and never be accompanied by a possessor or possessum phrase.

- (2.184)
- | | | | | |
|---------|---|-----------------------------|---|--|
| jümehrt | D | (↑ POSS PRED)=‘PRO’ | ← | <i>non-optional pronominal possessor</i> |
| | | (↑ POSS PERS)=3 | | |
| | | (↑ POSS NUM)=pl | | |
| | | (↑ PRED)=‘PRO-of<(↑ POSS)>’ | ← | <i>non-optional pronominal possessum</i> |
| | | (↑ GEND)=n | | |
| | | (↑ NUM)=sg | | |
| | | (↑ CASE)=nom | | |

The table in (2.185) gives an overview of the nine different possibilities and also provides an example for each possible type of lexical entry in the imaginary dialect I have used as an example above.

(2.185)

pronominal PRED feature		example	
possessor	possessum	features	form
non-optional	non-optional	their.N.SG.NOM	jümeht
non-optional	optional	their.M.SG.ACC	jümehtn
non-optional	none	their.N.SG.NOM	jümeht
optional	non-optional	his.N.SG.NOM	sient
optional	optional	his.M.SG.NOM	sien
optional	none	his.N.SG.NOM	sien
none	non-optional	their.N.SG.NOM	ehrt
none	optional	their.M.SG.ACC	ehrn
none	none	their.N.SG.NOM	ehr

So far I have only discussed third person linkers and never mentioned first or second person possessive linkers. The reason for this is that the possessive linker construction can only be used with third person possessors. This makes sense from a functional point of view because the interlocutors in a speech situation can be identified by using the possessive pronouns of the first and second person alone (cf. section 2.2). The ungrammaticality of the examples in (2.186) and (2.187) can be ensured by positing that the first and second person possessive pronouns have a non-optional pronominal PRED feature for the possessor.

(2.186) **mi* *mien* *Vadder*
 1.SG.ACC my.M.SG.NOM father.M.SG.NOM
 “my father”

(2.187) **di* *dien* *Vadder*
 2.SG.ACC your.M.SG.NOM father.M.SG.NOM
 “your father”

Examples like that in (2.188) are excluded because the possessive linkers are third person forms and therefore contain the equation (\uparrow POSS PERS)=3 which clashes with the person feature of a first or second person possessor phrase.

- (2.188) **mi* *sien* *Vadder*
 1.SG.ACC his.M.SG.NOM father.M.SG.NOM
 “my father”

Surprisingly, the following two examples are marginally possible. However, according to my informants only these two specific combinations are sometimes used and then only in a jocular way.⁵⁰ One of my Plautdietsch speaking informants does not consider these examples possible at all (Reuben Epp, p.c.).

- (2.189) ?*Dat* *is mien* *sien.*
 DEM.N.SG.NOM is my.N.SG.NOM his.N.SG.NOM
 “That is mine.” (Kellermann 2003, lesson 19)

- (2.190) ?*Dat* *is dien* *sien.*
 DEM.N.SG.NOM is your.N.SG.NOM his.N.SG.NOM
 “That is yours.” (Kellermann 2003, lesson 19)

I am inclined to consider these examples as wordplay and not necessarily a part of the grammatical system of Low Saxon. In contrast to this, Fiva (1987, pp. 30ff) wants to regard the corresponding, also marginally possible, Norwegian phrases *min sin bil* (my car) and *din sin bil* (your car) as evidence for the fact that the possessor phrase in the Norwegian possessive linker construction, which seems to have the same basic structure as the Low Saxon one, agrees with the possessive pronoun in genitive case. The existence of the same marginal phrases in Low Saxon where the

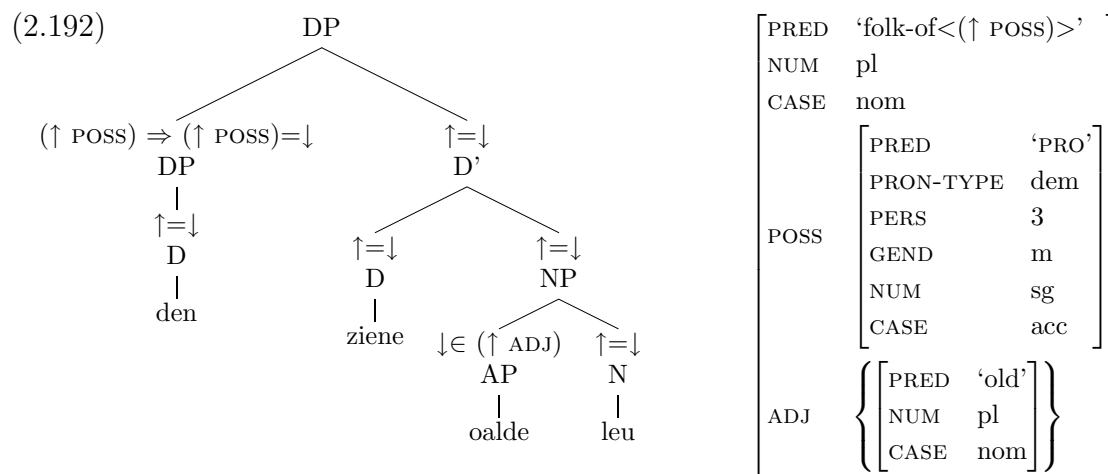
⁵⁰Cf. also the online Low Saxon course by Radio Bremen at:
http://www.radiobremen.de/online/platt/kurs/lektion19_genetiv.html.

possessor phrase normally stands in the accusative or dative case casts great doubt on Fiva's argumentation.⁵¹ Moreover, whether Norwegian still has a real genitive case is also questionable (Norde 1997, chapter 5). But it seems that authors working in the framework of Government and Binding Theory like Fiva (1987), automatically assume that genitive case has to be involved whenever they encounter a possessive construction.

Let me now analyze a few examples of the possessive linker construction and give their c-structure and f-structure. The first example is (2.191) which contains a demonstrative in the possessor phrase.

- (2.191) *den* *ziene* *oalde* *leu*
 DEM.M.SG.ACC his-PL.NOM old-PL.NOM people.PL.NOM
 "this person's old folks"

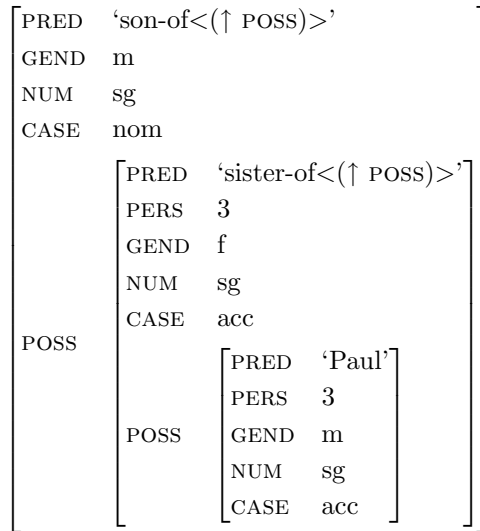
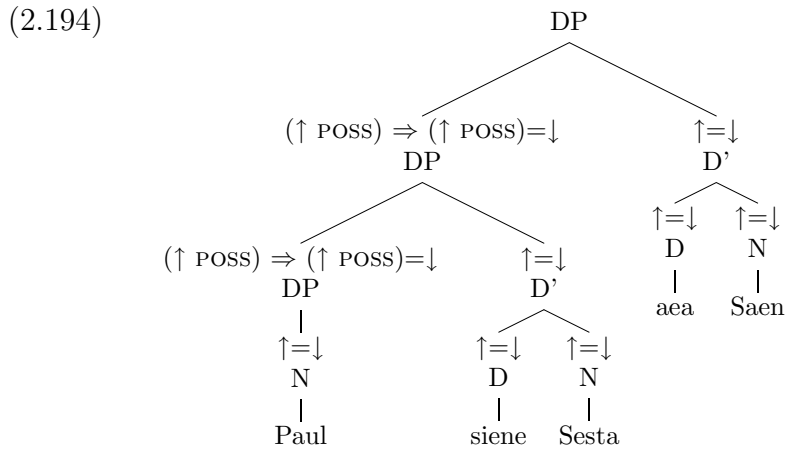
The c-structure and f-structure for this example are shown in figure (2.192). I will not discuss the exact treatment of the adjective in this example.



⁵¹Also confer the Afrikaans examples at the end of this section.

The next example contains one possessive linker phrase embedded in the possessor phrase of another; cf. example (2.193). The resulting c-structure and f-structure can be seen in figure (2.194).

- (2.193) *Paul siene Sesta aea Saen*
 Paul.M.SG.ACC his-F.SG.ACC sister.F.SG.ACC her.M.SG son.M.SG
 “Paul’s sister’s son”



The next example demonstrates the analysis of possessive linker constructions that lack a possessum phrase. The form *zienent* in example (2.195) can only occur

when no possessum phrase is present. Moreover, the possessum it refers to can have any number or gender; cf. the f-structure in figure (2.196).

(2.195) *Joakob* *zientent*
 Jacob.M.SG.ACC his
 “Jacob’s”

(2.196)

$(\uparrow \text{ POSS}) \Rightarrow (\uparrow \text{ POSS}) = \downarrow$	DP	$\uparrow = \downarrow$	$\uparrow = \downarrow$
	DP	D	
	$\uparrow = \downarrow$	zientent	
	N		
	Joakob		

PRED	‘PRO-of<(\uparrow POSS)>’										
CASE	nom										
POSS	<table style="border-collapse: collapse; border: 1px solid black; margin-left: 5px;"> <tr> <td style="border-right: 1px solid black; padding-right: 5px;">PRED</td> <td style="padding-left: 5px;">‘Jacob’</td> </tr> <tr> <td style="border-right: 1px solid black; padding-right: 5px;">PERS</td> <td style="padding-left: 5px;">3</td> </tr> <tr> <td style="border-right: 1px solid black; padding-right: 5px;">GEND</td> <td style="padding-left: 5px;">m</td> </tr> <tr> <td style="border-right: 1px solid black; padding-right: 5px;">NUM</td> <td style="padding-left: 5px;">sg</td> </tr> <tr> <td style="border-right: 1px solid black; padding-right: 5px;">CASE</td> <td style="padding-left: 5px;">acc</td> </tr> </table>	PRED	‘Jacob’	PERS	3	GEND	m	NUM	sg	CASE	acc
PRED	‘Jacob’										
PERS	3										
GEND	m										
NUM	sg										
CASE	acc										

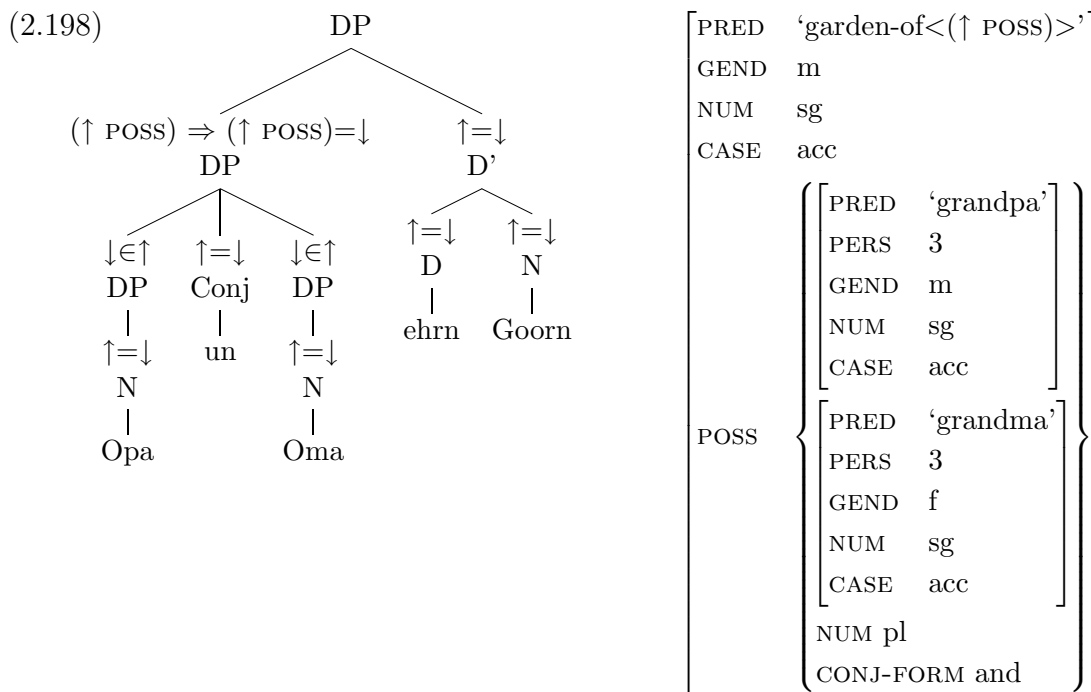
The pronominal linker construction can be used with various coordination patterns. Some of those patterns can be given a straightforward analysis in accordance with the structure I proposed above. Others are ambiguous in they can be assigned multiple structures. Some more complicated ones require a more sophisticated theory of coordination.

Example (2.197) shows that two possessors DPs can be coordinated to become a complex possessor phrase that is followed by just one linker which agrees with the whole possessor phrase in number.⁵²

(2.197) *Opa* *un* *Oma* *ehrn*
 grandpa.M.SG.ACC and grandma.F.SG.ACC their.M.SG.ACC
 Goorn
 garden.M.SG.ACC
 “grandpa and grandma’s garden”

⁵²In the terminology of Norde (1997) this could be considered a group genitive in that there are two conjuncts in the possessor phrase but only one linker which follows them both.

This example does not pose a problem for standard accounts of coordination in LFG because it is generally assumed that in NP or DP coordination the number and person features of the coordinated phrase are not necessarily the same as those of the individual conjuncts (cf. e.g. Butt et al. 1999, chapter 8). The structure of example (2.197) is given in figure (2.198).



The possessum phrase, too, can be complex; cf. examples (2.199) and (2.202). In these examples, there is again only one linker preceding the complex possessum phrase. This linker has to agree with both individual conjuncts of the possessum phrase, i.e. although the complex phrase *Leev un Erbarmen* supposedly has a number feature with the value plural (just like *Opa un Oma* above) the linker does not have to show plural agreement: the result would even be ungrammatical; cf. example (2.200). This difference in agreement of the linker with the possessum phrase vs. agreement with the possessor phrase can be modeled using a recent proposal by King

and Dalrymple (2004). They augment the LFG theory of agreement by splitting the agreement features of nominal phrases into *index* and *concord* features. Index features are accessed in pronominal agreement or verb-subject agreement. The index features of a complex nominal phrase can differ from those of the individual conjuncts, e.g. a conjunction of two DPs will usually contain an index number feature with the value plural. Concord features in contrast are those features that matter for the concord inside the nominal phrase. The complex noun phrase as a whole does not possess concord features only the individual conjuncts do. Agreement restrictions imposed on the possessum phrase by the possessive pronoun/linker are restrictions on the concord features and therefore are distributed over the individual conjuncts. This is the reason why example (2.199) without agreement inflection on the linker is fine whereas example (2.200) with agreement inflection on the linker that is not compatible with both conjuncts of the possessum phrase is odd.

(2.199) *Gott sien' Leev un Erbarmen*
 God.M.SG.ACC his love.F.SG and mercy.N.SG
 “God’s love and mercy”

(2.200) ??*Gott siene Leev un Erbarmen*
 God.M.SG.ACC his-PL/F.SG love.F.SG and mercy.N.SG
 “God’s love and mercy”

In figure (2.201), I give the lexical entry of the possessive pronoun/linker *ehren* (their.M.SG.ACC) with the more elaborate agreement features. Note that I do not regard case as an index feature because all conjuncts of a possessor phrase individually always have to appear in accusative (or dative) case.

(2.201)

ehren D ((↑ POSS PRED)=‘PRO’)
 (↑ POSS INDEX PERS)=3 ← *index agreement with possessor*
 (↑ POSS INDEX NUM)=pl
 (↑ POSS CONCORD CASE)=acc
 ((↑ PRED)=‘PRO-of<(↑ POSS)>’)
 (↑ CONCORD GEND)=m ← *concord agreement with possessum*
 (↑ CONCORD NUM)=sg
 (↑ INDEX NUM)=sg
 (↑ CONCORD CASE)=acc

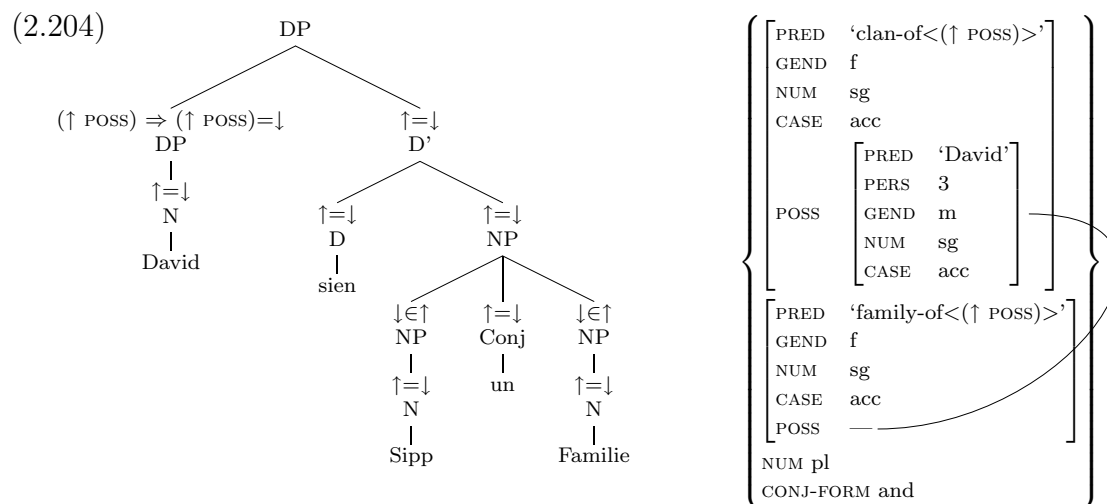
It seems that like German (cf. King and Dalrymple 2004, p. 85), Low Saxon determiners impose restrictions both on the index and concord features of their co-heads. Therefore *sienen Vadder un Unkel* (his father and uncle) is slightly odd because the masculine singular form *sienen* requires not only that the CONCORD NUM features of *Vadder* and *Unkel* are singular but also that the INDEX NUM feature of the coordination is singular. This would be the case if *Vadder* and *Unkel* could be interpreted as one and the same person. However, they are distinct persons and the value of the index number feature of the coordination will therefore be plural. These constraints might however be less strict in Low Saxon as I have found several counterexamples in my corpus.

In contrast to German however, Low Saxon has the option of using inflectionless forms of the possessive pronouns/linkers. This makes it possible to have a possessum phrase which contains conjuncts with different number and gender features; cf. example (2.202) and the corresponding German version in (2.203). Note that this points to the fact that underspecification of agreement features is necessary for inflectionless forms of the possessive pronouns/linkers, i.e. we cannot simply assume that *sien* either has neuter singular or plural agreement features.

(2.202) *irjent waem sien Selwa, oda Goltt, oda Kjleeda*
 someone.M.SG.ACC his silver.N.SG or gold.N.SG or clothes.PL
 “someone’s silver, or gold, or clothes”

- (2.203) *?*sein Silber oder Gold oder Kleider*
 his.N.SG silver.N.SG or gold.N.SG or clothes.PL
 “his silver, or gold, or clothes”

Figure (2.204) shows the structure of the simple example *David sien Sipp un Familie* (David’s clan and family) without the detailed distinction between index and concord agreement features.

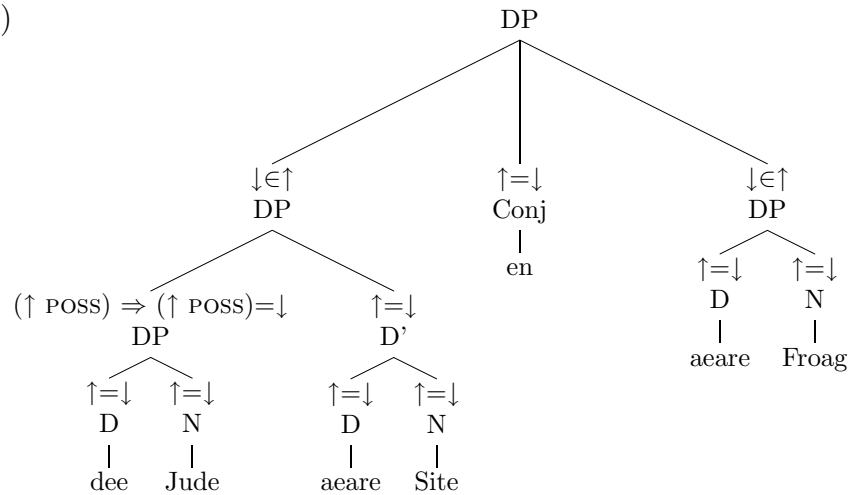


Example (2.205) from the Plautdietsch Bible exemplifies another possible coordinate structure. According to my analysis, this example can have two possible c-structures. The first analysis involves a coordination of two DPs: one possessive linker phrase and one possessive pronoun phrase; cf. figure (2.206). In the second analysis what is coordinated is the combination of linker and possessum phrase at the D' level; cf. figure (2.207).

- (2.205) *dee Jude aeare Site en aeare*
 the.PL.ACC jew-PL.ACC their-PL.ACC custom.PL.ACC and their-PL.ACC
Froag
 question.PL.ACC
 “the customs and controversies of the Jews”

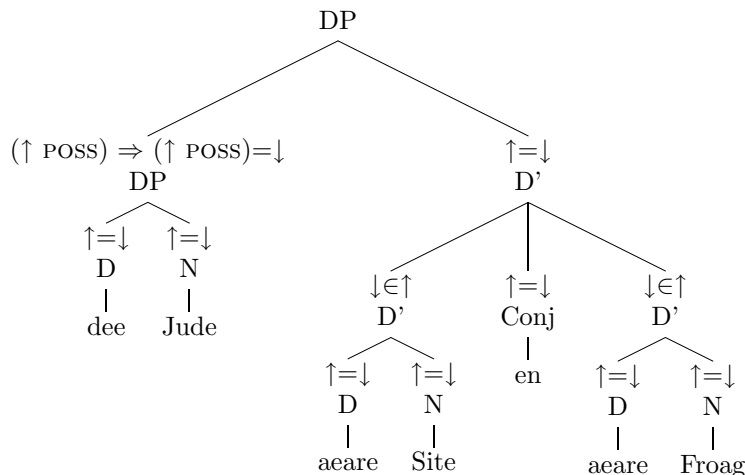
In the first analysis, there is no syntactic connection between the possessor phrase and the second possessum phrase. The second possessive pronoun can be interpreted as referring to the same entity as the possessor phrase of the possessive linker construction but it can also refer to a different entity.

(2.206)



In the second analysis, the possessor phrase is syntactically distributed over the set of the two conjuncts, i.e. over the two combinations of linker and possessum phrase, and accordingly the second linker is predicted not to be able to refer to any entity at all and the referent of the possessor phrase is obligatorily interpreted as the possessor of the second conjunct. The f-structure that results from the second analysis is essentially like that in (2.204).

(2.207)



For all examples in which both possessums are in a possessive relation with the same possessor given by the preceding possessor phrase it is not easy to decide which one of the two possible analyses is the right one. Even if we choose the first analysis with two non-connected possessive phrases the possessive pronoun of the second can be co-indexed pronominally with the possessor phrase of the first. For examples in which the possessor is distinct for the first and the second possessum, the second analysis which posits one big possessive linker construction is not possible. The question is therefore whether there is good evidence that a structure like (2.207) is actually needed. I have not been able to find conclusive evidence so far but I suggest that there might be an intonational difference between the two structures. I leave this question for future research. There might be a reason why a structure like (2.207) could be dispreferred. It is not as economical as a structure like (2.204) with only one linker but still projects a similar f-structure, i.e. the second linker does not add extra information to the f-structure. If the conjuncts of the possessum phrase differ in their concord agreement features (see above) a structure like (2.207) might be better motivated but in Low Saxon there is always the possibility of using non-inflected linkers in such a situation instead of duplicating the possessive linker.

The last type of coordinate structure that I want to discuss is exemplified in

(2.208). This example is problematic for my analysis because it seems that the possessive pronoun *onnse* (our) is coordinated with a combination of possessor phrase plus linker: *daem Herr siene* (the Lord's). As the possessor phrase and the linker do not form a constituent in my analysis, this last type of coordinate structure is somewhat surprising. Rather only examples like (2.209) where the first conjunct is an independent form of a possessive pronoun⁵³ are predicted to occur. Example (2.209) can be given a straightforward account in my theory. It is a DP coordination where the first DP just contains the independent form of the possessive pronoun without a possessum phrase and the second DP consists of possessive linker construction. In fact, the same analysis can be extended to example (2.208) because the form *onnse* can also be used without a following possessum.

(2.208) *En jie worde onnse, en daem Herr,*
 and you become our-PL.NOM and the.M.SG.ACC Lord.M.SG.ACC
siene Nofolja
 his-PL.NOM successor.PL.NOM
 “and you became our and the Lord's successors”

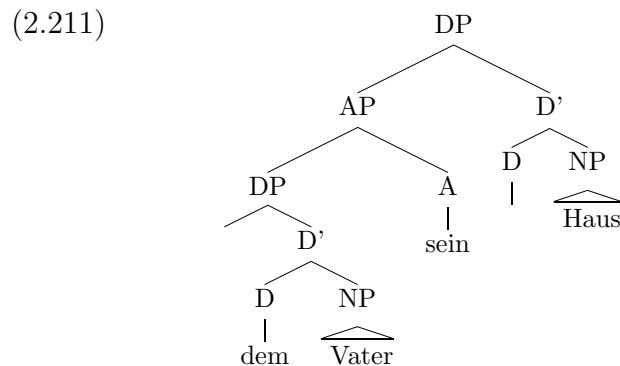
(2.209) *Eenmol in't Johr leest plattdüütsche Schrieberslüüd ut*
 once in=the year read Low Saxon writers from
ehr'n un ok ut anner Lüüd ehr
 theirs-PL.ACC.STR and also from other people their.PL.ACC
Vertell'n.
 story.PL.ACC
 “Once a year, Low Saxon writers read from their own and other people's stories.”

Lindauer (1995, p. 158) argues for a different structure of the possessive linker construction than I assume here. He gives example (2.210) to argue for an analysis of the German possessive linker construction in which the possessive linker and the

⁵³The form *ehr'n* is clearly an independent form because it cannot be used in the phrase **ut ehr'n Vertell'n* (from their stories).

possessor phrase form a constituent; cf. the structure in figure (2.211) taken from Lindauer (1995, p. 158).

- (2.210) [_{AP} [_{DP} *dem* *Vater*] *sein*] *und* [_{AP} *mein*]
 the.M.SG.DAT father.M.SG.DAT his.N.SG and my.N.SG
Haus
 house.N.SG
 “the father’s and my house” (Lindauer 1995, p. 158)



The details of his analysis do not fit well into standard LFG theory, e.g. he assumes that D is empty in the possessive linker construction and that the possessor phrase is a complement of the possessive adjective *sein*. However, if *sein* was a run-of-the-mill adjective it would have its own f-structure in LFG terms and the possessor would be part of this f-structure not of the f-structure of the DP. Further complications include question of how to ensure that the possessive pronoun does not co-occur with other determiners, etc. However, the main difference between our two analyses is that Lindauer assumes a different constituent structure in which the linker and the possessor phrase form a constituent but not the linker and the possessum phrase. His analysis predicts that combinations of possessor phrase and linker should be freely conjoinable. Rather it seems that examples like (2.208) and (2.210) are quite rare and generally rejected as extremely marginal by my informants. As a speaker of German, I have the intuition that an example like (2.210) is only possible with

special intonation. In my opinion, this casts doubt on Lindauer’s analysis of simple constituent coordination. Instead, I propose that examples like (2.208) and (2.210) should be analyzed as non-constituent coordination, probably parallel to so-called right-node raising (Joan Bresnan, p.c.). For reasons of space, I will not attempt to give such an analysis here but leave the question for future research.⁵⁴

In the introduction to this section, I stated that my analysis would clearly show the synchronic and diachronic connection between the possessive linker construction and the possessive pronoun construction. I have argued that the possessive linker construction has the same basic structure as the possessive pronoun construction. My analysis in terms of nominal pro-drop provides an elegant account of the similarities between possessive pronouns and possessive linkers but also leaves room for possible specializations of certain forms as only linkers or possessive pronouns. It furthermore explains the fact that pronominal elements can be used as a form of possessive marking with full DP possessor phrases and that the resulting construction is not felt to involve actual pronominal resumption by native speakers but essentially functions the same way as verbal agreement morphology in pro-drop languages. Diachronically, I claim that my account is able to provide a straightforward mechanism for the structural and referential reanalysis that led to the possessive linker construction. I have found two main hypotheses for the origin of this construction. Lübben (1882, pp. 108–109) believes that this construction evolved from Middle Low Saxon relative clauses with resumptive pronouns; cf. examples (2.212)–(2.214).

(2.212) *de* *gene,* *des* *dat* *hûs*
 the.M.SG.NOM one.M.SG.NOM, RELPRN.M.SG.GEN the.N.SG house.N.SG
 sîn *is*
 3.M.SG.GEN is

⁵⁴See Maxwell and Manning (1996) for one proposal for a theory of non-constituent coordination in LFG. Another possible account would use so-called function spreading (cf. Frank 2002; Sadler 2003) maybe in combination with the restriction operator proposed by Kaplan and Wedekind (1993).

“the one whose house it is” (Lübben 1882, p. 108)

- (2.213) *mit al den vaders, der er*
 with all the.PL.DAT father.PL.DAT, RELPRN.PL.GEN their.M.SG.NOM
name gode is bekant
 name.M.SG.NOM good is known

“with all the fathers (godfathers) whose name is well known” (Lübben 1882, p. 108)

- (2.214) *ên backer, de sîn brôt*
 a.M.SG baker.M.SG, RELPRN.M.SG.NOM his.N.SG.NOM bread.N.SG.NOM
to licht were
 too light was

“a baker whose bread was too light” (Lübben 1882, p. 108)

In my opinion, although Lübben’s account is not implausible there are some gaps in the historical development, e.g. did this construction really start with relative pronouns, why did it come to be used with a dative possessor phrase and later with an accusative one whereas the relative pronoun in example (2.214) is a nominative form and that in example (2.213) is in the genitive case, etc.

An alternative account is given by many authors; cf. e.g. Behaghel (1923, p. 638), Norde (1997, pp. 58-61), Saltveit (1983, p. 317). This account assumes that a structural reanalysis has taken place in examples with so-called free datives/accusatives of pertinence which often encode a possessive relation but where the possessor and possessum are two independent arguments of a verb (this is also referred to as possessor raising); cf. the English example (with a PP) in (2.215).

- (2.215) He hit me on the head. (\approx he hit my head)

Behaghel and Norde assume that a reanalysis might have taken place in ambiguous sentences like the following where the two arguments of the verb occur adjacent to each other; cf. the German examples in (2.216)–(2.218).

- (2.216) *Er hat [meinem Vater] [seinen Hut]*
 he has my-M.SG.DAT father.M.SG.DAT his-N.SG.ACC hat.N.SG.ACC
genommen.
 taken
 “He has taken his_i hat from my father_i.” (Norde 1997, p. 59)

- (2.217) *Er hat [meinem Vater seinen Hut]*
 he has my-M.SG.DAT father.M.SG.DAT his-N.SG.ACC hat.N.SG.ACC
genommen.
 taken
 “He has taken (away) my father’s hat.” (Norde 1997, p. 59)

Examples (2.218) and (2.219) contain a Plautdietsch example from my corpus which is ambiguous in this way. It can either mean that someone did something to the servant of the priest namely cut off his ear or it can simply mean that someone cut off the ear of the priest’s servant.

- (2.218) *En eena fonn an heiwd [daen Huagapriesta*
 and one of them cut the.M.SG.ACC high priest.M.SG.ACC
sien Sklow] [sien rachtet
 his.M.SG.ACC servant.M.SG.ACC his.N.SG.ACC right-N.SG.ACC
Ua] auf.
 ear.N.SG.ACC off
 “One of them hit the high priest’s servant and cut off his ear.”

- (2.219) *En eena fonn an heiwd [[daen Huagapriesta*
 and one of them cut the.M.SG.ACC high priest.M.SG.ACC
sien Sklow] sien rachtet
 his.M.SG.ACC servant.M.SG.ACC his.N.SG.ACC right.N.SG.ACC
Ua] auf.
 ear.N.SG.ACC off
 “And one of them cut off the ear of the high priest’s servant.”

Good evidence for such a reanalysis is given if the two parts can appear adjacently in a position where only one constituent is allowed, e.g. in front of the finite verb in

a verb-second clause, compare example (2.220) with an accusative of pertinence with example (2.221) where only an analysis as possessive phrase is possible.

- (2.220) *De Deern würden ehr Oogen*
 the.F.SG.ACC girl.F.SG.ACC became-PL her.PL.NOM eye-PL.NOM
jümmers wat grötter.
 always a little bit bigger
 “The girl experienced a continuous widening of her eyes.” (≈ “The girl’s eyes continued to widen.”)
 (Saltveit 1983, p. 317)

- (2.221) [*De Deern ehr Oogen*] *würden*
 the.F.SG.ACC girl.F.SG.ACC her.PL.NOM eye-PL.NOM became-PL
jümmers wat grötter.
 always a little bit bigger
 “The girl’s eyes continued to widen.”

This account of reanalysis seems quite plausible to me. Once the combination of the two adjacent DPs had been reanalyzed as a constituent, the possessor phrase could regularly be attached to the left of a possessive pronoun construction to form a possessive phrase with a nominal possessor. At the beginning the possessor phrase might still have had a residue of the experiencer semantics associated with the possessor raising construction (cf. Saltveit 1983, p. 317) but this was soon lost. I suggest that the referential nature of the possessive pronoun which now acted as a linker was lost after some time and the former pronoun was functionally reanalyzed as a mere possessive marker. A more advanced stage of grammaticalization can be observed in Afrikaans (cf. Norde 1997, pp. 60–61) where the linker *se* is further phonologically reduced and distinct from the masculine singular possessive pronoun *syn*. Moreover, *se* can be used with possessor phrases of all genders and even with non-third person pronouns,⁵⁵ e.g. example (2.222).

⁵⁵Note that the use of a personal pronoun together with the possessive linker is also possible in

(2.222) *ek* *se* *werk* / *my* *se* *werk*
 1.SG.NOM LK work 1.SG.ACC LK work
 “my work”

The loss of referentiality of the possessive pronoun can be modeled in LFG by assuming that its pronominal PRED feature first becomes optional and later may even be completely lost in case the form of the possessive pronoun is further grammaticalized⁵⁶ and solely acts as a linker as is the case with Afrikaans *se*.

2.4 The s-possessive

In this section I will outline an LFG analysis of the s-possessive construction as used in modern Low Saxon. I will show that despite the apparent differences there are some commonalities between the s-possessive construction and the possessive linker construction. There are no publications that I know of that specifically deal with the Low Saxon s-possessive but I will take the literature on the parallel constructions in English, Scandinavian, German, and Dutch into account. Because the s-possessive is used rather infrequently in most dialects of Low Saxon and my corpus did not contain as much data as for the other possessive constructions I cannot give as thorough an account for the s-possessive as I would like and some questions will have to be answered by further research.

In the s-possessive construction the possessor phrase is followed by the morpheme *s* which is traditionally considered as a genitive case marker that is an inflectional suffix on the head noun of the possessor phrase. I will argue below that the *s* exhibits more

Low Saxon although only very rarely and with third person pronouns. But in my opinion it is not necessary to assume some influence from other languages to explain the further development of the Afrikaans linker as Norde (1997, p. 61) does.

⁵⁶Cf. Bresnan (2001, p. 146) for a similar account of the grammaticalization of incorporated pronouns in the verbal domain.

clitic-like behavior and will therefore gloss it as =POSS in the examples.⁵⁷ The whole combination of possessor phrase plus attached =s precedes the possessum phrase; cf. examples (2.223)–(2.225).

(2.223) *Unkel Heinrichs moje Wahnstuuw*
 uncle Heinrich=POSS beautiful living room
 “uncle Heinrich’s beautiful living room”

(2.224) *dien Navers Eegen*
 your neighbors=POSS property
 “your neighbor’s property”

(2.225) *Mudders nee’e Tapeten*
 mother=POSS new wallpaper
 “mother’s new wallpaper”

The combination of possessor phrase plus =s is in complementary distribution with determiners such as indefinite and definite articles, demonstratives, possessive pronouns, etc.; cf. examples (2.226)–(2.237).

(2.226) **Vadders de Hoot* (2.227) **Vadder des Hoot*
 father=POSS the hat father the=POSS hat

(2.228) **de Vadders Hoot* (2.229) **Vadders een Hoot*
 the father=POSS hat father=POSS a hat

(2.230) **Vadder eens Hoot* (2.231) **een Vadders Hoot*
 father a=POSS hat a father=POSS hat

(2.232) **Vadders sien Hoot* (2.233) **Vadder siens Hoot*
 father=POSS his hat father his=POSS hat

(2.234) **sien Vadders Hoot*
 his father=POSS hat

⁵⁷As the =s possessive marker neither agrees with the possessor phrase nor with the possessum phrase I will not indicate categories such as person, number, and gender in the glosses as I did for the possessive pronoun and possessive linker constructions.

(2.235) **Vadders düsse Hoot*
 father=POSS this hat

(2.236) **Vadder düsses Hoot*
 father this=POSS hat

(2.237) **düsse Vadders Hoot*
 this father=POSS hat

Note that example (2.234) is grammatical with the reading *his father's hat*. But in this case *sien* is the determiner of *Vadder* (father) and not of the noun in the possessum phrase *Hoot* (hat). The same applies to the demonstrative *düsse* in example (2.237). Just as in the possessive pronoun and possessive linker constructions the possessum phrase cannot take a determiner if it is preceded by the possessor phrase and =s. I conclude therefore that it is again plausible to model the possessum phrase as an NP (instead of a DP). As shown by examples (2.238)–(2.239) the possessum NP can contain modifiers such as adjective phrases and prepositional phrases.

(2.238) *Israeel's fastsetten Weg*
 Israeel=POSS fixed path
 “Israel's fixed path”

(2.239) *Tinas Kopp met de blankem blowwen Augen*
 Tina=POSS head with the shining blue eyes
 “Tina's head with the shining blue eyes”

As is the case in German and Dutch (cf. Weerman and de Wit 1999) the possessor phrase most often consists of proper names or certain nouns such as *Gott* (god), *Mudder* (mother), *Vadder* (father), and *Naver* (neighbor) which are often used as terms of address and can appear without a determiner just like proper names; cf. examples (2.240)–(2.242). The s-possessive construction is however not restricted to personal names but often occurs with proper names denoting places as shown by example (2.242).

(2.240) *Antjes Bröögam*
 Antje=POSS bridegroom
 “Antje’s bridegroom”

(2.241) *Nahwers Jung*
 neighbor=POSS boy
 “the neighbor’s boy”

(2.242) *Düütschlands gröötste Ölumschlaghoven*
 Germany=POSS biggest oil trading port
 “Germany’s biggest oil trading port”

Example (2.241) taken out of context could also be analyzed as a noun compound in the same way as the German words *Nachbarsjunge* (neighbor’s boy) and *Nachbarskind* (neighbor’s child). However, in addition to intonational differences between a nominal compound and a syntactic s-possessive phrase (cf. section 2.1), the context of example (2.241) given in (2.243) makes clear that we should analyze this instance of *Nahwers Jung* as a syntactic s-possessive phrase and not as a compound.

(2.243) *De Nahwersch lickt sick all dat Muul, all*
 The female neighbor licks herself already the mouth all
Nahwerschen sünd reinweg dull. Nahwers Jung steeg
 female neighbors are totally crazy neighbor=POSS boy climbed
oewer’n Tuun
 over=the fence
 “The neighbor is already licking her chops, all neighbors are getting totally crazy. The neighbor’s boy climbed over the fence.”

In the preceding context the author has already mentioned members of the neighbor’s family. It is therefore clear that *Nahwers Jung* refers to a specific boy. A compound however would still be a common noun and would have to occur with a determiner such as in *de Nahwersjung* (the [neighbor’s boy]), *de Nahwersdochter* (the [neighbor’s daughter]), or *de Naverskinner* (the [neighbor’s children]).

Some dialects use the s-possessive construction in a rather special way as an alternative to simple juxtaposition of first name and last name; cf. examples (2.244) and (2.246) and their alternative forms in (2.245) and (2.247).

(2.244) *Kläövers* *Bäänd*
 Kläöver=POSS Bäänd
 “Bäänd Kläöver”

(2.245) Bäänd Kläöver

(2.246) *Mählmanns* *Manfred*
 Mählmann=POSS Manfred
 “Manfred Mählmann”

(2.247) Manfred Mählmann

Most of the examples in my corpus are from the Westphalian dialect of the Münsterland in Germany.⁵⁸ Note that the *s*-suffix in these examples probably expresses plurality and possession at the same time (also see below). The plural of a family name is generally formed by adding an *-s* and it is used to denote all members of a family; cf. example (2.248).

(2.248) *Busserts* *bleven* *true* *Frünnen*
 Bussert-PL remained-PL loyal-PL friend-PL
 “The Bussert family remained loyal friends.”

I would argue that even this use of the s-possessive construction is in line with the function of possessive constructions to encode a reference point for the identification of a second referent. In this case, from all the individuals with a certain first name that one is singled out that belongs a certain family.

⁵⁸Saltveit (1983, p. 315) reports this use also for the dialect of the Neumark in the east of Germany.

In contrast to German (and Dutch) Low Saxon also allows more complex possessor phrases with the s-possessive. Examples (2.249) and (2.250) contain possessive pronoun phrases as possessor phrases, a type of phrase that I have analyzed as a DP in section 2.2.

(2.249) *höör ollens hus*
 her parent-PL=POSS house
 “her parents’ house”

(2.250) *dien Navers Eegen*
 your neighbor=POSS property
 “your neighbor’s property”

(2.251) *Lütt Matten’s Groth Målöör*
 little Matten=POSS big accident
 “little Matten’s big accident”

(2.252) *Duesse mansluets peer suend swatt.*
 these men=POSS horses are black
 “These men’s horses are black.” (Helge Tietz, p.c.)

Example (2.251) shows that a proper name can also be modified when it acts as a possessor phrase in the s-possessive construction. The possessor phrase of example (2.252) contains a demonstrative pronoun which is usually regarded as a determiner. I therefore conclude that the possessor phrase in the s-possessive construction should be analyzed as a DP.

However, not all kinds of DPs can be used as possessor phrase. It seems that pronominal possessor phrases in general are excluded in the s-possessive construction; cf. examples (2.253)–(2.255).

(2.253) **hes* / **ems* / **siens Huus*
 3.SG.NOM=POSS 3.SG.ACC=POSS his=POSS house
 “his house”

(2.254) **des* *Huus*
 DEM=POSS house
 “that person’s house”

(2.255) **düsses* *Huus*
 DEM=POSS house
 “this person’s house”

There are some examples in my corpus that contain a pronoun-like element such as *annermanns* (somebody else’s)⁵⁹ which is still analyzable as *anner-man-s* (*other-man* plus either =POSS or a fossilized genitive suffix).⁶⁰ This seems to be a relatively young indefinite pronoun that can be distinguished from a regular s-possessive possessor phrase in that it is not preceded by a determiner (as in *en anner Manns Pötte* another man’s pots) and cannot have a specific reading. Some more examples of this kind can be seen in (2.256)–(2.260).

- | | |
|--|---|
| <p>(2.256) <i>annermanns</i> <i>Pötte</i>
 someone else=POSS pots
 “someone else’s pots”</p> | <p>(2.257) <i>aandermans</i> <i>grond</i>
 someone else=POSS land
 “someone else’s land”</p> |
| <p>(2.258) <i>allermanns</i> <i>Ogen</i>
 everybody=POSS eyes
 “everybody’s eyes”</p> | <p>(2.259) <i>jedermanns</i> <i>Sok</i>
 everybody=POSS thing
 “everybody’s thing”</p> |
| <p>(2.260) <i>elkoars</i> <i>woorden</i>
 each other=POSS words
 “each other’s words”</p> | |

In Plautdietsch there is a special possessive wh-word *waems* (whose)⁶¹ that can be used as an alternative to the usual possessive linker construction (cf. also Neufeld 2000, p. 20). Example (2.261) shows that these two alternative constructions can be

⁵⁹Cf. also Saltveit (1983, p. 315).

⁶⁰See below for a discussion of the distinction between the old genitive and the =POSS morpheme.

⁶¹Speakers of East Frisian Low Saxon in the US also use a form *wells* (whose) (Shirley Wyatt, p.c.).

used interchangeably. I will come back to these kinds of pronominal examples after having established the general structure of the s-possessive construction.

- (2.261) [*Waems Bilt*] *en* [*waem siene Ennschreft*] *es dit?*
 whose picture and who.ACC his-F.SG inscription.F.SG
 “Whose picture and whose inscription is this?”

The structure of the s-possessive construction seems to be parallel to that of the possessive linker construction in that the possessor phrase is a DP and the possessum phrase is an NP. The next question is therefore how the possessive marking in the s-possessive construction should be analyzed.

When I provided an overview of the different possessive constructions of modern Low Saxon in section 2.1, I established the remnants of the old genitive and the s-possessive as different possessive constructions. I will now try to justify this decision by giving synchronic and diachronic evidence from Low Saxon itself and by drawing on recent analyses of the s-possessive constructions in English, Swedish, Dutch and German.

If we compare the following examples of genitive phrases from older Low Saxon, examples (2.262) and (2.264), with their equivalents in modern Low Saxon, examples (2.263)⁶² and (2.265), we find several commonalities but also several important differences.

- (2.262) [*myns Grotvaders older*]
 my-M.SG.GEN grandfather-M.SG.GEN old-F.SG.GEN
 [*Möme sprack*]
 grandmother.F.SG.GEN language
 “the language of my grandfather’s old grandmother”

⁶²This direct rendition of example (2.262) in modern Low Saxon is extremely marginal because many dialects strongly prefer possessor phrases that are proper nouns and also seem to disprefer more complex possessor phrases such as the recursive structure in example (2.262) in the s-possessive construction.

(2.263) *[[mien Grotvaders olle Mömes] spraak]*
 my grandfather=POSS old grandmother=POSS language
 “the language of my grandfather’s old grandmother”

(2.264) *des Königes Tochter*
 the.M.SG.GEN king-M.SG.GEN daughter
 “the king’s daughter”

(2.265) *de Königs Tochter / den Königs*
 the.M.SG.NOM king=POSS daughter the.M.SG.ACC king=POSS
Tochter
 daughter
 “the king’s daughter”

In contrast to modern German (and Dutch) where possessor phrases in the genitive usually follow the head noun (if they are used at all)⁶³ genitive possessor phrases in pre-modern Low Saxon often precede the possessum phrase and are in complementary distribution with determiners; cf. examples (2.262) and (2.264).⁶⁴ There is thus no general word order difference between what I have called the s-possessive and the old genitive in Low Saxon as there is in modern German and Dutch (cf. Weerman and de Wit 1999). However, the manner of possessive marking is quite different in two ways: First, possessive phrases in pre-modern Low Saxon exhibit internal case-concord, i.e. all elements of the possessor phrase are marked with genitive case, e.g. in example (2.262) not only *Grotvader* (grandfather) carries an *s*-suffix but also the possessive pronoun *myn* (my) which precedes it. This behavior is predicted by the analysis of the possessive pronoun construction from section 2.2. Even in modern Low Saxon where case morphology has been lost to a great extent, determiners such as the possessive pronouns exhibit some amount of visible case concord with the head noun they accompany. Note that the possessive pronoun *mien* in the modern

⁶³Cf. also Lindauer (1995), Weerman and de Wit (1999, pp. 1165ff), Norde (1997, pp. 53–55).

⁶⁴As far as I can tell after a casual reading of the Middle Low Saxon texts in Lübben (1882), the pronominal genitive seems to occur much more frequently than the postnominal genitive in Middle Low Saxon.

Low Saxon version in example (2.263) does not carry an *s*-suffix. It is not the case however that this suffix (like other inflectional suffixes) has been optionally omitted; the determiner cannot carry this suffix in modern Low Saxon at all.⁶⁵ The first major difference between the modern *s*-possessive and the old genitive is thus the lack of genitive case concord in the possessor phrase (at least the lack of visible case concord). Example (2.265) shows that the form of the determiner can vary between what looks like a nominative form and what looks like an accusative form. I will come back to this issue below. Second, the form of the genitive case marking in pre-modern Low Saxon varied with gender and number, e.g. the phrase *older möme* is in genitive case but does not carry any *s*-suffix (which was restricted to masculine and neuter singular). The following examples from modern Low Saxon all use the *s*-morpheme as possessive marking regardless of the gender and number of the head noun in the possessor phrase. The possessive *s*-morpheme is thus invariant and exhibits no morphologically or phonologically triggered allomorphy; cf. also Taylor (1996, p. 119) for a similar argument concerning the English *s*-possessive.

- | | |
|---|---|
| <p>(2.266) <i>Vadders</i> <i>Auto</i>
 father.M.SG=POSS car
 “father’s car”</p> | <p>(2.267) <i>Lenas</i> <i>Süster</i>
 Lena.F.SG=POSS sister
 “Lena’s sister”</p> |
| <p>(2.268) <i>Israeel’s</i> <i>fastsetten</i> <i>Weg</i>
 Israel.N.SG=POSS fixed path
 “Israel’s fixed path”</p> | |
| <p>(2.269) <i>Uröllerns</i> <i>Johrn</i>
 great grandparent.PL=POSS years
 “the great grandparents’ years”</p> | |

The *s*-possessive morpheme in modern Low Saxon thus shows strong parallels to its English and Scandinavian counterparts, (cf. Norde 1997; Taylor 1996; Rosenbach

⁶⁵Native speakers will still be able to understand such a form but will generally regard it as very antiquated.

2002), but also to the possessive marking used in the so-called “prenominal genitive” in German and Dutch (Weerman and de Wit 1999), in that it has an invariant shape and always occurs only once between the possessor phrase and the possessum phrase.⁶⁶ Recent studies of the s-possessive construction in the other Germanic languages have concluded that the *s*-morpheme should not be regarded as a case suffix, (cf. Norde 1997; Hudson 1995; Taylor 1996; Rosenbach 2002; Weerman and de Wit 1999). Apart from its invariance and the lack of case concord there are two more arguments why the *s*-morpheme should not be regarded as a typical case marking on the head of the possessor phrase. First, even in Low Saxon⁶⁷ the s-possessive can be used in what is usually called a group genitive, i.e. in a coordination only the second conjunct is followed by the *s*-morpheme;⁶⁸ cf. example (2.270).

(2.270) *Hinnerk un Annas Huus*
 Hinnerk and Anna=POSS house
 “Hinnerk and Anna’s house”

(2.271) **Hinnerks un Anna Huus*
 Hinnerk=POSS and Anna house
 “Hinnerk and Anna’s house”

The reverse combination where only the first conjunct is marked is not possible; cf. example (2.271). These facts present great problems for a case marking account because case in Low Saxon normally has to be distributed over the individual conjuncts, cf. the accusative case in examples (2.272) and (2.273), which is apparently not the case for the possessive *s*-morpheme.

⁶⁶Possible exceptions to the second claim can occur in coordinations, see below.

⁶⁷This is also true for modern German although most linguists still do not acknowledge the existence of an s-possessive construction apart from the real genitive construction; cf. e.g. Drosdowski et al. (1995, pp. 240–245) and Lindauer (1995, pp. 200–206), but see Weerman and de Wit (1999).

⁶⁸This is a constructed example judged to be grammatical by my informants.

(2.272) *De Schandarm laavte den Tobak un*
 the police man praised the.M.SG.ACC tobacco.M.SG.ACC and
den goden Sluck.
 the.M.SG.ACC good-M.SG.ACC drink.M.SG.ACC
 “The police man praised the tobacco and the good drink.”

(2.273) **De Schandarm laavte den Tobak un*
 the police man praised the.M.SG.ACC tobacco.M.SG.ACC and
de gode Sluck.
 the.M.SG.NOM good-M.SG.NOM drink.M.SG.NOM
 “The police man praised the tobacco and the good drink.”

Second, the *s*-morpheme always attaches to the right edge of complex names,⁶⁹
 cf. examples (2.274)–(2.277).

(2.274) *Franz vun Assisis “Sünnensang”*
 Francis of Assisi=POSS song of the sun
 “Francis of Assisi’s ‘song of the sun’ ”

(2.275) **Franz’ vun Assisi “Sünnensang”*
 Francis=POSS of Assisi song of the sun
 “Francis of Assisi’s ‘song of the sun’ ”

(2.276) *Gezienus van Sienaots jonges*
 Gezienus van Sienaot=POSS boys
 “Gezienus van Sienaot’s boys”

(2.277) **Gezienus’ van Sienaot jonges*
 Gezienus=POSS van Sienaot boys
 “Gezienus van Sienaot’s boys”

The same is true for the combination of title plus name; cf. the Low Saxon exam-
 ples in (2.278) and (2.279) and the contrast between examples (2.280) (*s*-possessive)
 and (2.281) and (2.282) (genitive) in modern German.⁷⁰

⁶⁹As I will show below it does not matter that the first names in these examples end in [s].

⁷⁰Cf. Norde (1997, pp. 53–55), Weerman and de Wit (1999) and Lindauer (1995, pp. 200–206)
 for a discussion of the German data.

- (2.278) *Präsident Reagans* *“Riek vun’t Böse”*
 president Reagan=POSS realm of=the evil
 “President Reagan’s ‘evil empire’ ”
- (2.279) **Präsidenten Reagan* *“Riek vun’t Böse”*
 president=POSS Reagan realm of=the evil
 “President Reagan’s ‘evil empire’ ”
- (2.280) *Präsident Reagans* *Amtszeit*
 president Reagan=POSS term
 “President Reagan’s term”
- (2.281) *die Amtszeit des* *Präsidenten* *Reagan*
 the term the.M.SG.GEN president.M.SG.GEN Reagan
 “President Reagan’s term”
- (2.282) **die Amtszeit des* *Präsident Reagans*
 the term the.M.SG.GEN president Reagan=POSS
 “President Reagan’s term”

To sum up, the *s*-morpheme can have wide scope over a conjunction and does not necessarily have to attach to the head of the possessor phrase but it always has to intervene between possessor phrase and possessum phrase. The behavior of the Low Saxon *s*-possessive thus seems to be parallel to that of the *s*-possessive in other Germanic languages and I conclude that it should be analyzed in a parallel fashion. My opinion, somewhat contrary to that expressed in Taylor (1996, pp. 11–15), is that one should take parallel constructions in other languages (especially genetically closely related ones) into account in the analysis of a construction in one language but of course only in addition to sufficient language internal evidence which I hope to have given above. I therefore reject an analysis of the *s*-possessive in terms of genitive case marking and will follow Torp (1973, p. 137), Barker (1995, chapter 1), Hudson (1995), Taylor (1996, chapter 5), Norde (1997), Rosenbach (2002) and especially Weerman and de Wit (1999) in assuming that the *s*-morpheme in the modern Germanic languages and in modern Low Saxon is not a case suffix.

In fact, the general structure and behavior of the *s*-possessive does not seem to differ much from that of the possessive linker construction. This similarity between the *s*-possessive and the possessive linker construction has already been noted for other languages by many authors including Torp (1973), Taylor (1996), Norde (1997), Weerman and de Wit (1999) and Rosenbach (2002). The *s*-morpheme can thus be regarded as another possessive linker used in modern Low Saxon.

This classification does not yet say anything about the morphological status of the *s*-morpheme. On the one hand, its placement can most easily be described by assuming that it is a syntactic element that always occurs in between the possessor and the possessum phrase just like the possessive linker. On the other hand, it is a phonologically bound element that always attaches to the preceding word. Unlike the possessive pronoun/linker e.g. it cannot be used without a preceding possessor phrase; cf. example (2.283).

- (2.283) **s* *Huus*
 POSS house
 “someone’s/his/her/its/their house”

The mixed morphosyntactic status of the *s*-linker suggests an analysis as a clitic, in the sense of a phonologically bound element that is placed according to syntactic rules as opposed to word-internal morphological rules; cf. e.g. Norde (1997, chapter 5) and Rosenbach (2002, chapter 2). There is however one major argument against an analysis of the *s*-morpheme as a clitic in English brought forth by Zwicky (1987, 1994) that is also relevant for Low Saxon. He argues that the possessive *s*-morpheme interacts with other morphemes of English, namely the 3.SG verb agreement suffix *-s* and the plural suffix *-s*. Specifically, if the possessive *s*-morpheme co-occurs with one of the other suffixes it is haploglogically omitted, i.e. only one [s] is pronounced; cf. examples (2.284) and (2.285). According to Zwicky’s argumentation this indicates

that the possessive *s*-morpheme has a zero allomorph that is morphologically conditioned. He therefore posits a new category of *phrasal affix* (sometimes also called *edge inflection*), i.e. an affix which underlies morphological rules and interacts with other affixes but is attached to a phrase instead of a word.

- (2.284) the boys' house [-z] (2.285) *the boys's house [-sɪz]

The Low Saxon possessive *s*-morpheme seems to behave in the same way. It undergoes haplology when it follows a word that carries the plural *s*-morpheme as in example (2.286)⁷¹ or even when it follows a stem that ends in [s] as in example (2.287) and in example (2.288) where the haplology is also indicated orthographically with an apostrophe.

- (2.286) *Busserts* *Kökenfinster*
 Bussert-PL=POSS kitchen window
 “the Bussert family's kitchen window”

- (2.287) *Kaiphas* *Huus*
 Kaiphas=POSS house
 “Kaiphas' house”

- (2.288) *Moses'* *Ohr*
 Moses=POSS ear
 “Moses' ear”

However, I am not really convinced by Zwicky's argument that haplology excludes an analysis as clitic (at least insofar as Low Saxon is concerned).⁷² Other elements that are standardly regarded as clitics such as weak pronouns (cf. Cardinaletti 1999;

⁷¹As demonstrated above in example (2.248) family names are used in a plural form with *-s* to denote all members of a family.

⁷²Taylor (1996, pp. 119–121) also seems to regard the haplology of the English possessive *s*-morpheme as exclusively phonologically conditioned. See Hudson (1995, p. 389) for additional arguments against Zwicky's analysis.

Cardinaletti and Starke 1999) show a similar behavior in Low Saxon when they occur in combination with certain common verbs. Consider the weak pronoun *et* (3.N.SG). This pronoun can sometimes assimilate without an apparent phonological trace to the 3.SG verb ending *-t*;⁷³ cf. example (2.289) which is a common greeting in Northern Germany, the question in example (2.290), or example (2.291) with the verb *dohn* (to do).

(2.289) *Nā, wo geht?* [gait]
 nā wo geht=*et*
 hey how goes=*it*
 “How’s it going?”

(2.290) *Wo geht wieter?* [gait]
 wo geht=*et* wieter
 how goes=*it* further
 “How does it continue?”

(2.291) *doch dat deiht’ nich alleen* [dait]
 doch dat deiht=*et* nich alleen
 but DEM.N.SG.NOM does=*it* not alone
 “But that alone doesn’t do it.” (≈ “But that alone is not sufficient.”)

However, as far as I know no one has ever suggested that the pronoun exhibits allomorphy in these cases. I would suggest therefore that it is indeed feasible to analyze the possessive *s*-morpheme as a clitic in Low Saxon that can be fully assimilated to a preceding [s]. This analysis also has the advantage that no new mechanisms for the treatment of phrasal affixes have to be introduced into the LFG formalism.⁷⁴

After having decided that the *s*-possessive marking can be assumed to be syntactically placed in modern Low Saxon I would like to discuss three different possibilities

⁷³My informant Reinhard F. Hahn suggests that the total elision of *=et* is only possible in certain conventionalized phrases. It could however also be the case that the sheer co-occurrence frequency of two specific forms alone leads to a higher degree of phonological fusion; cf. also Nübling (1992).

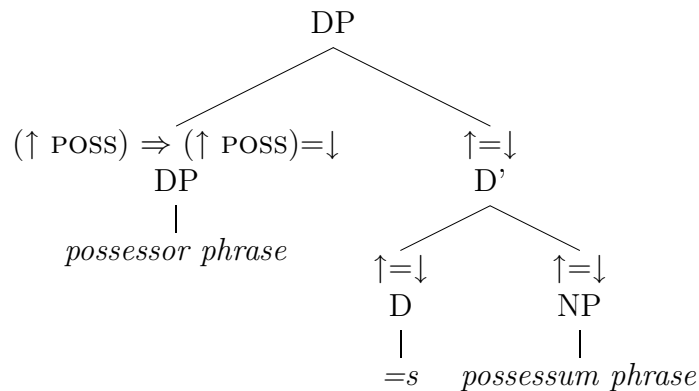
⁷⁴However, I argue in Strunk (2003b) that such a mechanism might still be needed for other phenomena e.g. for the Kurdish attributive linking article, the so-called *ezafe*.

that have been proposed for the analysis of the s-possessive construction in other Germanic languages. The most straightforward one that immediately captures the complementary distribution of the s-possessive marking and other determiners, the placement of the *s*-morpheme, and the similarity of the s-possessive to the possessive linker construction assumes that =*s* is a determiner that occurs in D and phonologically leans on to the right edge of the preceding possessor phrase. The rough outline of this kind of analysis has already been proposed for English by Hudson (1995) and quite a few other linguists.

's is a possessive pronoun which exceptionally needs a preceding NP; its pronunciation is controlled by a rule which fuses the pronunciations of adjacent *s* morphemes. (Hudson 1995, p. 391)

This type of structure shown in figure (2.292) is also suggested by Radford (1990) for English and Delsing (1991) for Swedish; cf. also Taylor (1996, p. 140), Norde (1997, p. 228), and Rosenbach (2002, p. 19).

(2.292)



It corresponds exactly to the structure I assume for the possessive linker construction; cf. figure (2.161). This means that I can “reuse” some of the mechanisms I introduced in section 2.3. To ensure e.g. that the occurrence of a possessor phrase is only grammatical in case it is followed by the possessive *s*-linker I have kept the

functional annotation $(\uparrow \text{POSS}) \Rightarrow (\uparrow \text{POSS})=\downarrow$ on the possessor phrase and assume the following lexical entry for $=s$.

(2.293)

$$\begin{aligned} =s \quad D \quad (\uparrow \text{POSS})=\downarrow \\ (\uparrow \text{PRED})=\text{'PRO-of}<(\uparrow \text{POSS})>' \quad \leftarrow \quad \textit{optional pronominal feature} \\ \quad \textit{for possessum} \end{aligned}$$

I assume that the possessive s -morpheme has two functions. First, it is a possessive marker and establishes the POSS function with the equation $(\uparrow \text{POSS})=\downarrow$ which projects the feature POSS with an empty f-structure as value⁷⁵ into the f-structure of the whole DP. Second, it can supply a pronominal PRED feature for the possessum as can be seen in examples (2.294) and (2.295) where the combination of possessor phrase plus following $=s$ occurs without a possessum phrase. These cases of ‘‘ellipsis’’ are modeled in a parallel way to cases where the possessive pronoun/linker occurs without a following possessum phrase except that the s -linker does not carry any agreement features and thus does not further restrict the range of possible antecedents for the pronominal interpretation of the possessum.

(2.294) *Fietes*

Fiete=POSS

‘‘Fiete’s’’

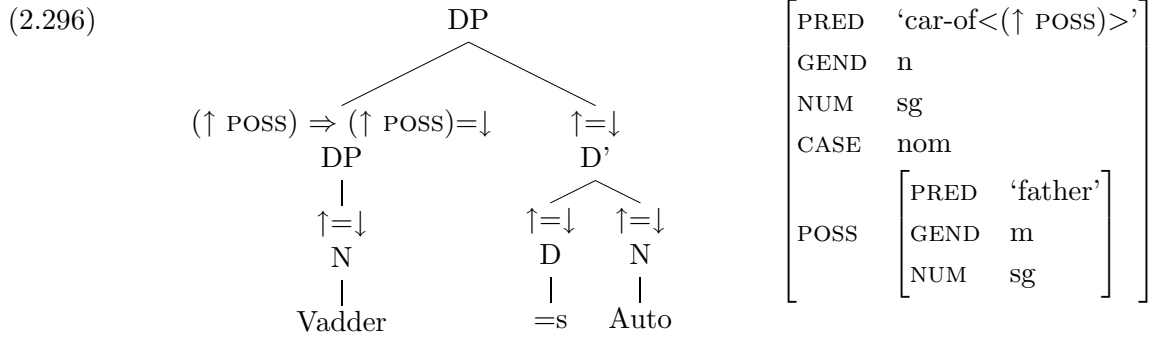
(2.295) *Hinnerk’s Huss iss groote den Antje’s.*

Hinnerk=POSS house is bigger as Antje=POSS

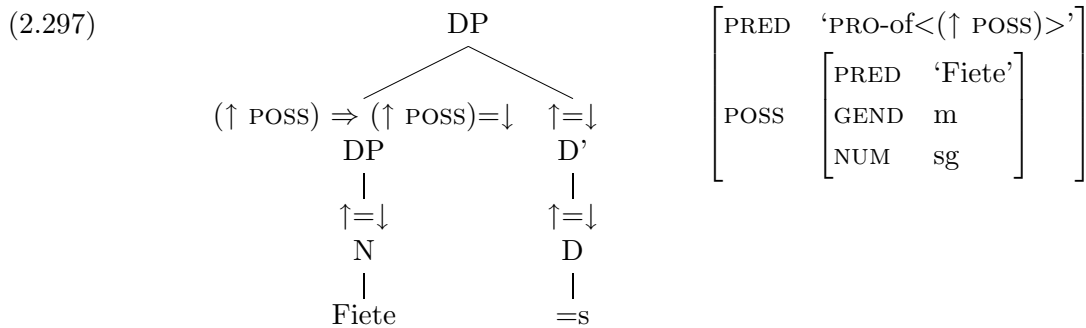
‘‘Hinnerk’s house is bigger than Antje’s.’’ (Shirley Wyatt, p.c.)

The analysis of a simple s -possessive phrase like (2.266) is then straightforward as shown in figure (2.296).

⁷⁵This f-structure is empty because the s -morpheme does not impose further restrictions on the possessor phrase (as the possessive linker construction does because of its agreement with the possessor phrase). However, if one wanted to build the (almost categorical) restriction of the possessor phrase to proper names into the grammar one could have the s -morpheme project a feature-value combination such as NTYPE *proper* into the POSS function.



An example like (2.294) without a possessum phrase and a pronominal interpretation of the possessum is analyzed as shown in figure (2.297).

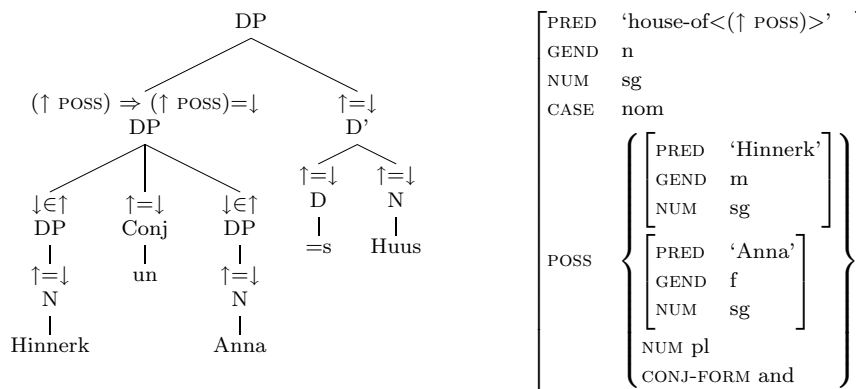


Note that =s lacks a pronominal PRED feature for the possessor which is one way to make sure that examples like (2.283) without a preceding possessor phrase are ruled out by the LFG grammar (cf. also Hudson 1995, p. 389). However, once we also consider coordination two potential problems for this proposal for the structure of the s-possessive appear. Examples that contain a coordination of the possessor phrase, e.g. (2.270), or the possessum phrase; cf. example (2.298), get a straightforward analysis.

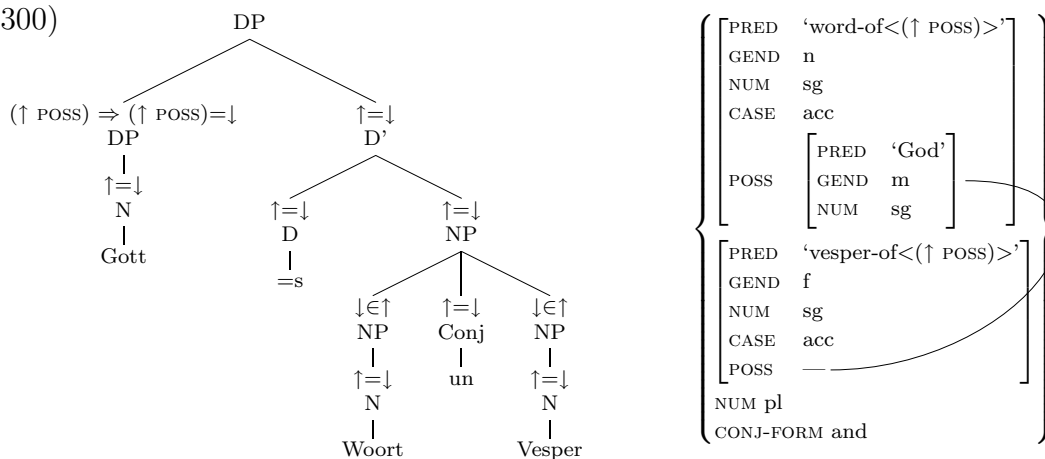
(2.298) *Gott’s Woort un Vesper*
 God=POSS word and vesper
 “God’s word and vesper”

The structure of an example with coordinated possessor phrases is shown in figure (2.299). That of example (2.298) with a coordination in the possessum phrase is given in figure (2.300).

(2.299)



(2.300)



However, the assumption that $=s$ lacks a pronominal PRED feature for the possessor is not enough to rule out the ungrammatical example (2.301) which would be predicted to be grammatical because $=s$ and the possessum phrase form a constituent and should thus be able to be coordinated and the completeness condition would be satisfied because the information from the possessor phrase is distributed over the two conjuncts of the coordination exactly as in figure (2.300).

- (2.301) **Gott's Woort un's Vesper*
 God=POSS word and=POSS vesper
 "God's word and vesper"

I think that it is reasonable to assume that the clitic status of the *s*-linker rules out an example like (2.301) because clitics are often awkward in a coordination environment maybe because of prosodic factors;⁷⁶ cf. example (2.302) with the weak pronoun *et* and the English example in (2.303).

- (2.302) ?*Ik heff't seihn un't verstohn.*
 I have=it seen and=it understood
 "I have seen it and understood it."

- (2.303) ?Pete's happy and'll go.

A more serious problem for the proposed structure is that the combination of possessor phrase plus possessive *s*-morpheme which is assumed not to form a constituent can also be coordinated.⁷⁷ It is not entirely clear what the structure of examples like those in (2.304) and (2.305) should be.

- (2.304) *Omas un Opas Goorn*
 grandpa=POSS and grandma=POSS garden
 "grandpa and grandma's garden"

- (2.305) *Gott's un Propheten's Wöör*
 God=POSS and prophet-PL=POSS words
 "God's and the prophets' words"

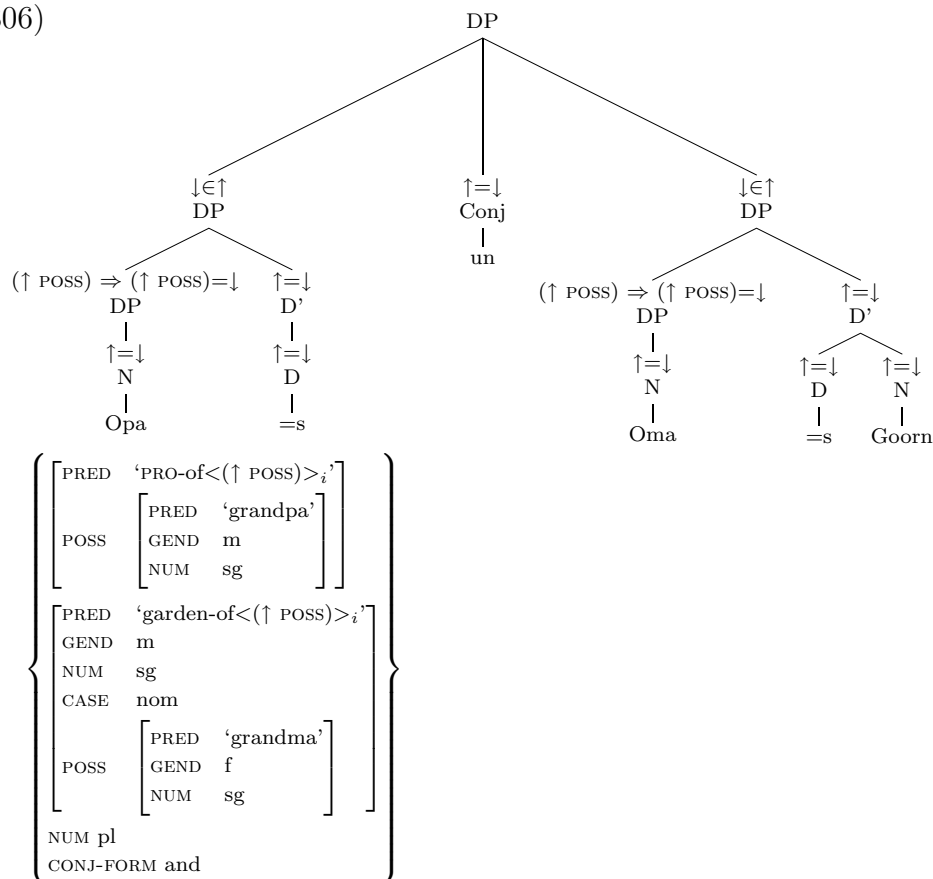
Again I could assume that these examples involve non-constituent coordination of some sort. However, examples like (2.304) and (2.305) are not as marginal as the

⁷⁶Another possibility is to assume that the *s*-clitic is selective in that it can only attach to hosts of certain syntactic categories (Joan Bresnan and Paul Kiparsky, p.c.).

⁷⁷This is possible even if two entities jointly possess the possessum as in example (2.304).

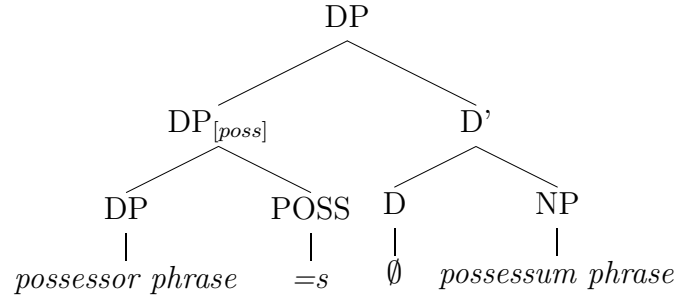
examples of possible non-constituent coordination of the combination of possessor phrase and possessive linker from section 2.3. Another possibility is to assume that the possessive marking on the first constituent is interpreted pronominally and we are really dealing with a DP coordination of the form shown in figure (2.306).

(2.306)

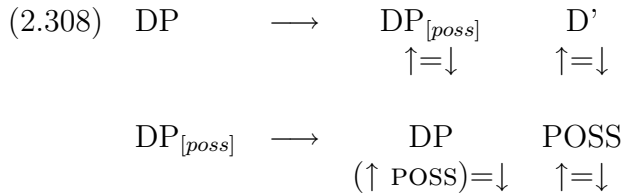


The alternative is to reject the structure proposed in figure (2.292) and to assume that the possessive *s*-linker actually does form a constituent with the possessor phrase and not with the possessum phrase. Such a structure is indeed proposed e.g. by Barker (1995, p. 31); cf. figure (2.307).

(2.307)

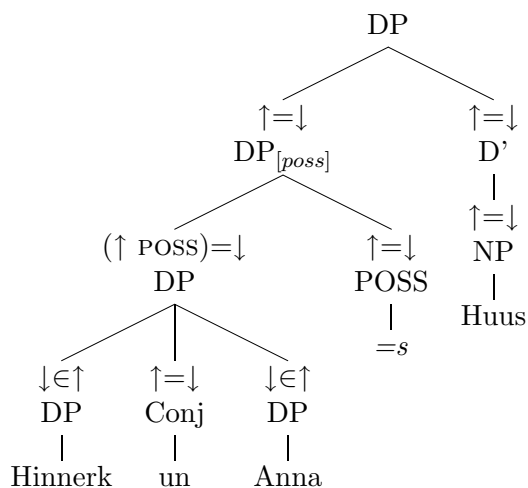


The *=s* is still syntactically placed but in case of a coordinated possessor phrase it can now appear once after the possessor phrase as a whole if two inner DPs are coordinated or on each individual conjunct if two $\text{DP}_{[POSS]}$ are coordinated. We can implement this account with a non-standard X' structure (cf. Bresnan 2001, chapter 6) by adding the rules in figure (2.308) to the grammar.

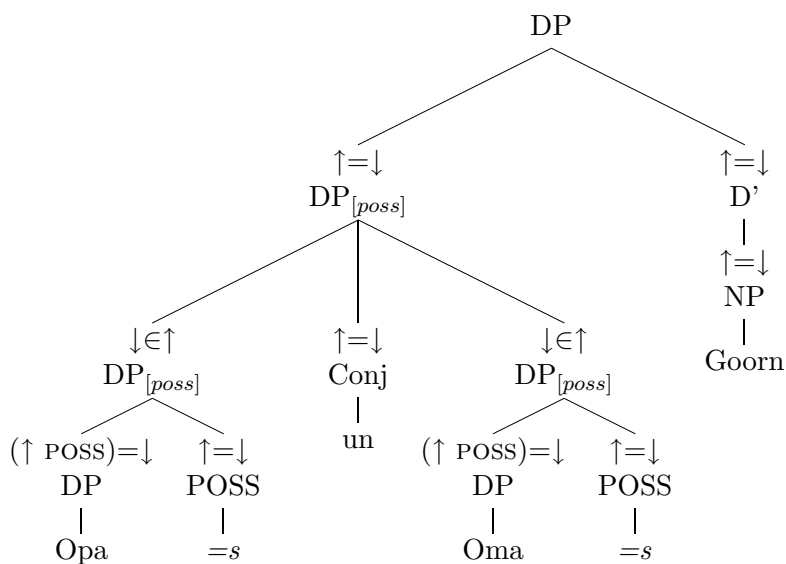


Figures (2.309) and (2.310) give the structures of examples (2.270) and (2.304) respectively. Coordination of possessor phrase plus *s*-linker is no longer a problem. The major problem for this kind of analysis is the question how to exclude other determiners from co-occurring with a $\text{DP}_{[poss]}$.

(2.309)



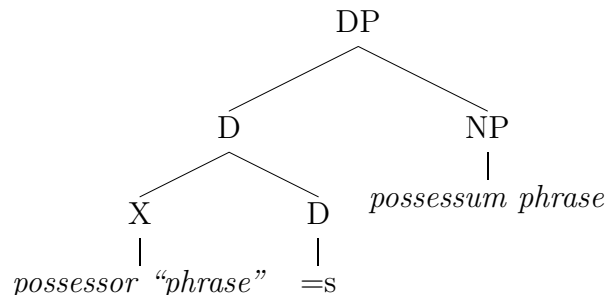
(2.310)



The f-structure that corresponds to the c-structure in figure (2.309) is the same as that in figure (2.299). The f-structure of example (2.304) according to the alternative analysis differs from that given in (2.306); cf. figure (2.311). The information from the possessum is now distributed over two f-structures in the set of coordinated conjuncts.

that they propose is depicted in figure (2.312).

(2.312)



The possessor phrase forms a lexical projection together with the possessive *=s*-morpheme which of course also means that they form a constituent. This proposal thus resembles the one by Barker (1995) except that the combination of possessor phrase plus *s* is not phrasal but lexical. The problems with coordination discussed above do not come up for this proposal because we can assume a coordination of two Ds in possessor phrases where both conjuncts carry an *s*-marking. However, the structure proposed is highly unconventional and therefore warrants even closer scrutiny. Weerman and de Wit (1999) argue that the kinds of “phrases” that can be used as possessor phrases in the Dutch *s*-possessive construction can all also appear inside noun compounds and that a morphological account of the *s*-possessive therefore seems plausible. Most importantly, they argue that the Dutch *s*-possessive prohibits determiners and other closed class items from occurring in the possessor phrase just as nominal compounds cannot contain any determiners. To further restrict the choice of possessor “phrases” to proper names they stipulate that the possessor “phrase” must contain inherently referential elements. This requirement together with the exclusion of determiners only leaves proper names as candidates for the possessor “phrase” of the *s*-possessive construction and the restrictions on the use of the *s*-possessive follow automatically.

Although I think their proposal is very interesting I am quite sceptical about the assumptions that Weerman and de Wit (1999) make. First, I do not think that the use

of proper names in compound nouns and in the s-possessive construction are nearly as parallel as they believe. If a name is used in a compound like that in example (2.313) it does not seem to have any referential value at all. In contrast to this a proper name in a syntactic s-possessive construction is usually clearly referential; cf. example (2.314).

(2.313) ??This is the Hoover_i tower. He_i was a great man.

(2.314) This is Hoover_i's tower. He_i was a great man.

But even more importantly Weerman and de Wit (1999) claim that no determiners or closed-class items can appear in the s-possessive. This is clearly wrong for Low Saxon as demonstrated by examples throughout this section. In many dialects demonstratives and articles do not regularly seem to be used in the possessor phrase of the s-possessive but possessive pronouns which I have analyzed as determiners and which clearly belong to a closed class of functional elements can appear with the s-possessive in all dialects that use it at all; cf. examples (2.315) and (2.316). And in some dialects even demonstratives or articles can occur in the possessor phrase; cf. example (2.317).

(2.315) *mien buurmans gezicht*
 my neighbor=POSS face
 "my neighbor's face"

(2.316) *us Mudder's Jung*
 our mother=POSS boy
 "our mother's boy"

(2.317) *den Hevens Hand*
 the heaven=POSS hand
 "Heaven's hand"

Surprisingly, even Weerman and de Wit give an example with a possessive pronoun in Dutch at the beginning of their article without discussing it later on (Weerman and de Wit 1999, p. 1167); cf. example (2.318).

(2.318) *mijn moeders boek*
 my mother=POSS book
 “my mother’s book”

It thus seems to me that their proposal as such cannot be applied to Low Saxon and many of their assumptions are doubtful.

In the preceding paragraphs I have presented an outline of three possible structural analyses of the Low Saxon s-possessive construction in the framework of LFG. Unfortunately the amount of data that I have available for the s-possessive construction is not sufficient to decide between the different proposals but I hope to have at least established a good basis for further discussion and research on this construction in Low Saxon.

Before I turn to the prepositional possessive construction I would like to briefly discuss some further issues of the Low Saxon s-possessive. In examples (2.256)–(2.261) above I have listed several possible exceptions to the claim that the s-possessive construction does not allow its possessor phrase to be pronominal. Certain elements such as *annermans* (somebody else’s) or *elkoars* (each other’s) did occur in my corpus with some frequency and in various different dialects. Surprisingly, the wh-pronoun *waems* (whose)⁷⁸ regularly occurs in texts written in Plautdietsch which is a dialect that does not use the regular s-possessive at all (Eldo Neufeld and Reuben Epp, p.c.; Neufeld 2000, p. 19). I would like to argue that these contradictions are only apparent ones. Specifically, I propose to analyze these kinds of indefinite pronouns not as productive combinations of pronoun plus the possessive *s*-morpheme but as

⁷⁸This form is already mentioned for Middle Low Saxon in Lübben (1882, p. 111).

independently needed for other grammatical phenomena (cf. e.g. Butt et al. 1999, pp. 76, 83).⁸⁰

I would like to further delimit the range of examples that should be considered as belonging to the s-possessive construction. Consider example (2.322) which might be regarded as an ordinary instance of the s-possessive construction and compare it to example (2.323).

(2.322) *Gottes* *Kinner*
 God=POSS? children
 “God’s children”

(2.323) *Gotts* *Licht*
 God=POSS light
 “God’s light”

The difference is that example (2.323) seems to be a perfectly regular combination of the possessive =s with the word *Gott* (God). In example (2.322) however, not only =s but *es* has been added to the word. One might think of this simply as minor phonological variation but it is striking that the *es* morpheme only seems to occur with the word for God. An example like (2.324) does not have an alternative form with *es*; cf. example (2.325).

(2.324) *Gorstedts* *oolet* *Dörp*
 Gorstedt=POSS old village
 “the old village of Gorstedt”

(2.325) **Gorstedtes* *oolet* *Dörp*
 Gordstedt=POSS? old village
 “the old village of Gorstedt”

⁸⁰It seems that the Plautdietsch interrogative pronoun *waems* can be used without a possessum phrase (or at least without pied piping of the possessum phrase): *Waems es daut Huus?* (Whose house is this?) (Eldo Neufeld, p.c.).

I conclude therefore that the form *Gottes* should not be regarded as a regular combination of *Gott* plus the possessive *s*-morpheme but as a special genitive form that is probably a calque taken from the language of the German translation of the Bible.⁸¹ Further evidence for this is the connotation of archaic and ceremonial language that this form carries (Reinhard F. Hahn, p.c.).

To conclude this section let me point out an interesting phenomenon. In several works (cf. e.g. Janda 1980, 2001) it has been suggested that a Middle English possessive linker construction exemplified in (2.326) might have influenced the development of the English genitive and its reanalysis from a case inflection to a clitic or phrasal affix; cf. Rosenbach (2002, pp. 212–217) for a nice overview of this subject.

(2.326) *the busshop of Rome his power*
 the bishop of Rome his power
 “the bishop of Rome’s power” (quoted from Rosenbach 2002, p. 213)

Norde (1997) claims to have shown that the clitic characteristics of the *s*-possessive in modern Swedish have come about without the parallel existence of a possessive linker construction but as a consequence of general deflection and especially the loss of case concord. In my opinion this account is quite plausible for the Scandinavian languages and probably also for German, Dutch and Low Saxon (cf. Weerman and de Wit 1999). However, Rosenbach (2002, pp. 215–217) gives example (2.327) from Norwegian and hypothesizes that possessive linker constructions might have had some influence in the North Germanic languages after all which might have been overlooked so far because the possessive linker constructions only occur in dialects but are not part of the standard languages.

⁸¹This would also explain its phonological shape with a medial /t/ instead of the expected /d/.

- (2.327) *Jan og Maria si-ne barn*
 Jan and Maria REFL.POSS-PL children
 “Jan and Maria’s children” (quoted from Rosenbach 2002, p. 216)

Contrary to what Rosenbach assumes these constructions have not really been overlooked. They are e.g. discussed in Torp (1973), Fiva (1987), and Norde (1997). However, the phonological difference between the possessive *s*-morpheme and the possessive linker is much greater than in English: compare Scandinavian *sin* vs. *-s* and English *his* vs. *-s* (cf. also Weerman and de Wit 1999, pp. 1174–1175).

The same is true for Low Saxon where *=s* could hardly be mistaken for a phonologically reduced form of *sien*. Nonetheless, I did find some evidence of possible influence from the possessive linker construction on the *s*-possessive in Low Saxon. First of all, I have found two examples in my corpus that could indicate a phonologically reduced form of the linker although alternative explanations such as simple orthographic mistakes might be more likely.

- (2.328) *Aoltie’ s’ jonges*
 Aoltie his.PL/=POSS? boys
 “Aoltie’s boys”
- (2.329) *Eurotas s’ Flaut*
 Eurotas his.F.SG/=POSS? torrent
 “the waters of the Eurotas”

Second, the form of the masculine singular determiners used in the possessor phrase of the *s*-possessive construction varies between what looks like a nominative (or unmarked form) and an accusative form; cf. examples (2.330)–(2.334).

- (2.330) *de Satans*
 the.M.SG.NOM/F.SG.NOM Satan.M.SG.NOM=POSS
Schwiegermoder
 mother-in-law.F.SG.NOM

“Satan’s mother-in-law”

- (2.331) *er* *Grootvadder’s* *Tieten*
 her.M.SG.NOM grandfather.M.SG.NOM=POSS time-PL.ACC
 “her grandfather’s times”

- (2.332) *Ik see eer* *brodhers* *peerd.*
 I see her.M.SG.NOM brother.M.SG.NOM=POSS horse.N.SG.ACC
 “I see her brother’s horse.” (Helge Tietz, p.c.)

- (2.333) *Den Sang ik fûnn, weit nich den* *Schrievers*
 the song I found know not the.M.SG.ACC writer.M.SG.ACC=POSS
Naam.
 name.M.SG.ACC
 “I found the song but not the writer’s name.”

- (2.334) *steiht in den* *Hevens* *Hand*
 stands in the.M.SG.ACC heaven.M.SG.ACC=POSS hand.F.SG.ACC
 “lies in Heaven’s hand”

Examples (2.331) and (2.332) clearly contain a nominative form of the possessive pronoun. In example (2.330) the possessor phrase contains a nominative definite article but it could be interpreted as accompanying a compound noun *Satanschwiegermoder* although this seems to be rather unlikely. The same is true for example (2.333) with an accusative definite article which could be interpreted either as the determiner of *Schriever* (writer) or of a compound noun *Schrieversnaam* (writer’s name) which again seems rather unlikely. However, example (2.334) is unambiguous in that the accusative article *den* can only be used with the masculine word *Heven* (heaven) and not with *Hand* (hand) which is feminine.

These facts can be interpreted in various different ways. On the one hand, the s-possessive could be influenced by the structurally similar possessive linker construction so that it also prefers its possessor phrase to appear in the accusative case. On the other hand, this tendency if it really exists could also be explained by a general

tendency to code possessors as obliques. It could also be the case that only the masculine singular nominative definite article *de* tends to be avoided in the s-possessive. These questions can only be clarified by further research. Interestingly, the only one of my informants who happily used the s-possessive construction with all sorts of possessor phrases (and did not prefer the possessive linker construction) speaks a dialect that borders on the Danish language area so that it is not implausible to assume that there might be some Danish influence on the dialects of this area. He indeed seems to consider the s-possessive and the pronominal linker construction as variants.

Dat is man juemmers so een saak [...], du kanns wul seggen “min brodher sin peerd” as ok “min brodhers peerd”. (Helge Tietz, p.c.)

That is always a question [...], you can say both “min brodher sin peerd” (my brother’s horse) and “min brodhers peerd” (my brother’s horse).

Despite the phonological difference between the possessive *s*-morpheme and the possessive linker in Low Saxon some mutual influence of the two constructions cannot be excluded a priori. It also seems reasonable to assume that two so similar constructions – both are pronominal, both are linker constructions – will compete with each other and influence each other if they are both used within one dialect.

2.5 The prepositional possessive construction

The fourth common possessive construction of modern Low Saxon involves a preposition as possessive marker. This construction is commonly used in all dialects of modern Low Saxon and also has direct parallels in Dutch and German (and also in English). The preposition that is most commonly employed to mark the possessive relation is *van/von/vun*; cf. examples (2.197)–(2.203). I will gloss this preposition with its English analogue *of*.

(2.335) *dat Fleesch vun de Lachsforellen*
 the.N.SG.NOM flesh.N.SG.NOM of the.PL.ACC salmon trouts-PL.ACC
 “the flesh of the salmon trouts”

(2.336) *t plat van n*
 the.N.SG.ACC Low Saxon.N.SG.ACC of the.M.SG.ACC
Achterhook
 Achterhoek.M.SG.ACC
 “the Low Saxon of the Achterhoek”

(2.337) *en Foda fonn fael Felkja*
 a.M.SG.NOM father.M.SG.NOM of many people-PL.ACC
 “a father of many peoples”

(2.338) *de Heerens van de Stadt*
 the.PL.NOM lord-PL.NOM of the.F.SG.ACC town.F.SG.ACC
 “the lords of the town”

In contrast to the possessive constructions discussed in the preceding sections the possessor phrase usually follows the head noun of the possessum phrase in the prepositional possessive construction (but see below for some exceptions). The following examples show that the combination of preposition plus possessor phrase should indeed be analyzed as a constituent, i.e. as a prepositional phrase (PP). Example (2.339) demonstrates that two possessor PPs can be conjoined. Example (2.340) contains the pro-PP form *dorvun* (thereof) which exemplifies that a PP can be pronominalized.

(2.339) *en Stück [vun jerre Heimat und*
 a.N.SG.ACC piece.N.SG.ACC of their-F.SG.ACC home.F.SG.ACC and
vun sick sülsen]
 of themselves.ACC
 “a piece of their home and of themselves”

(2.340) *En lütt Kind vun twee Maand un de Öllern dorvun sünd*
 a little child of two months and the parents thereof are
[...] in't Krankenhuus kamen.
 in=the hospital come
 “A small child two months of age and its parents have been transported into the hospital.”

- (2.341) *Ok [van schrievers uut Berkoop] gaf de Schrieversronte*
 also of writer-PL.ACC from Berkoop gave the writer's circle
boeken uut
 book-PL.ACC out
 "The writer's circle also published books of writers from Berkoop."

Last but not least, example (2.341) contains a topicalized *van/von/vun*-PP in front of the finite verb which is generally taken to be a good test of constituency in verb second languages. All these tests fail for the combination of possessum phrase plus *van/von/vun*. This evidence suggests that the possessor phrase is the c-structure complement of the possessive-marking preposition and forms a prepositional phrase with it. The prepositional possessive construction can thus be considered an analytic dependent-marking possessive construction (Koptjevskaja-Tamm 2001, p. 961).

Possessum phrase and possessor phrase in the prepositional possessive construction can both contain further modifiers; cf. examples (2.342)–(2.344).

- (2.342) *de faste forsche Stimm vun*
 the.F.SG.NOM firm-F.SG.NOM brisk-F.SG.NOM voice.F.SG.NOM of
de'n Huusvadder
 the.M.SG.ACC father of the house.M.SG.ACC
 "the firm, brisk voice of the father of the house"
- (2.343) *de Hugel ut Steen vun Judaa*
 the.PL.ACC hill.PL.ACC of stone of Judea
 "the hills of stone of Judea"
- (2.344) *de sproake van [oons deel*
 the.F.SG.NOM language.F.SG.NOM of our.N.SG.ACC part.N.SG.ACC
van t laand]
 of the.N.SG.ACC country.N.SG.ACC
 "the language of our part of the country"

Thus no restrictions similar to those on the s-possessive construction which prefers structurally simple possessor phrases apply to the prepositional possessive construction. In contrast to all possessive constructions in which the possessor phrase precedes

the possessum phrase there is no complementarity of the possessor phrase and determiners of the possessum phrase such as articles or demonstratives; cf. examples (2.345)–(2.347). Most importantly the possessum can be marked as indefinite, which is not possible in the other constructions; cf. also Rosenbach (2002, pp. 18–19) for the English *of*-construction.

(2.345) *dat Motto vun dissen Dag*
 the.N.SG motto.N.SG of this-M.SG.ACC day.M.SG.ACC
 “the motto of this day”

(2.346) *düsse Kroon vun de Wichel*
 this.F.SG crown.F.SG of the.F.SG.ACC willow.F.SG.ACC
 “this crown of the willow”

(2.347) *en niege Phase vun’e Weltgeschichte*
 a.F.SG new-F.SG era.F.SG of=the.F.SG.ACC world history.F.SG.ACC
 “a new era of world history”

Both the possessor phrase and the possessum phrase can be pronominal. Example (2.348) contains a pronominal possessor phrase, while examples (2.349) and (2.350) exemplify different pronominal possessum phrases.

(2.348) *n vinger van heur*
 a.M.SG.NOM finger.M.SG.NOM of 3.F.SG.ACC
 “a finger of her” (\approx “one of her fingers”)

(2.349) *een vun de achtersten Been*
 one.N.SG of the.PL.ACC hind-PL.ACC leg.PL.ACC
 “one of the hind legs”

(2.350) *Wi vun de ELO’s*
 1.PL.NOM of the.PL.ACC ELO.PL.ACC
 “we of the ELOs” (i.e. The Brotherhood of the Elbe-Pilots)

The structure to be proposed for the prepositional possessive construction thus has to accommodate that both possessum phrase and possessor phrase are full DPs and accordingly can have determiners or be pronominal.

The personal pronoun in example (2.348) also clearly shows that the possessor phrase that occurs inside the PP has to bear accusative case. This can also be seen in example (2.351) which contains a masculine singular possessum. In example (2.352) taken from an older Westphalian text the possessor phrase is dative case-marked instead.⁸²

(2.351) *de Broen van den aulen*
 the.PL.ACC calf-PL.ACC of the.M.SG.ACC old-M.SG.ACC
Mann
 man.M.SG.ACC
 “the calves of the old man”

(2.352) *ene van den drei Wallnütten*
 one-F.SG.ACC of the.PL.DAT three walnut-PL.DAT
 “one of the three walnuts”

In order to save space and make the glosses more readable I will not give detailed morphosyntactic information about case, gender, and number for the examples in the remainder of this section. The case of the possessor phrase in the prepositional possessive construction can be assumed to be accusative unless otherwise indicated.

The structure of the Low Saxon prepositional possessive construction seems to be parallel to that generally assumed for the English *of*-possessive. Figure (2.353) is a typical proposal for the c-structure of the English *of*-possessive by Chisarik and Payne (2001) using a more traditional NP analysis.

⁸²This is parallel to the situation in German: *die Waden von dem alten Mann* (DAT) (the calves of the old man) and *eine von den drei Walnüssen* (DAT) (one of the three walnuts).

(2.353)

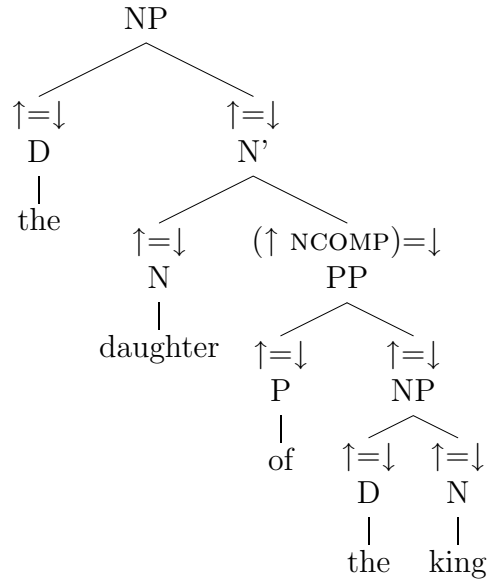
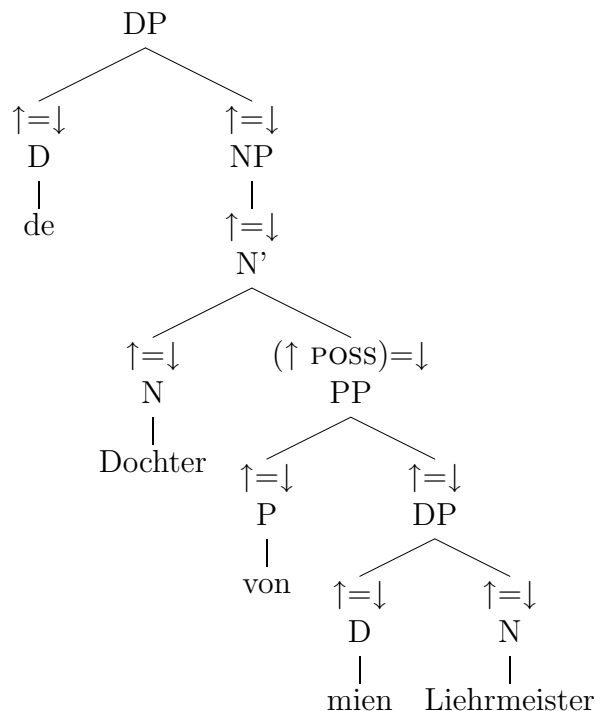


Figure (2.354) is my recast of their general structure into a structure which incorporates the hypothesis that nominal phrases in modern Low Saxon should best be modeled as determiner phrases (DP). I have substituted the Low Saxon possessive phrase *de Tochter von mien Liehrmeister* (the daughter of my master) for the English phrase of figure (2.353). For the sake of simplicity, I have also changed the grammatical function associated with the *of*-possessor phrase into POSS. Chisarik and Payne (2001) distinguish between the grammatical functions of the possessor phrase in the English s-possessive and in the *of*-possessive to be able to model their different use with deverbal nominals; cf. also section 2.6.

(2.354)



The first thing to note about this structure is that possessum phrase and possessor phrase cannot really be distinguished as separate constituents. Rather the possessor phrase is situated within the NP that is the projection of the head noun of the possessum phrase. If such a structure is appropriate for the Low Saxon prepositional possessive construction, it is predicted that modifiers of the head noun of the possessum phrase should be able to occur after the possessor PP. This is indeed the case as can be seen in example (2.355) which contains another PP and in examples (2.356) and (2.357) with following relative clauses.

(2.355) *dat berühmt Wort von Jesus ut dat Markus-Evangelium*
 the famous word of Jesus from the gospel of Mark
 “the famous word of Jesus from the gospel of Mark”

(2.356) *Mor [de conservoator van [t Museum van Oudheden], dai noast*
 but the curator of the museum of antiquity who next
mai ston], wos beter.
 me stood knew better

“But the curator of the museum of antiquity who stood next to me knew better.”

- (2.357) *Wenn ik so an [een vun [de Telgens vun de'n Linn'boom, de
if I so on one of the branches of the lime tree that
hier an de Muur överhangt]], 'röverkladdern dörf,
here on the wall hang over climb over might
“If I was allowed to use one of the branches of the lime tree that hang over the
wall here to climb over [...].”*

Note that the relative clauses in examples (2.356) and (2.357) precede the clause-final verb and thus cannot be argued to be extraposed.

The second important aspect of the structure proposed in figure (2.354) is the c-structure position of the *van/von/vun*-PP, i.e. the possessor phrase. It is a sister of the noun which is the head of the possessum phrase. This noun combines with the possessor PP and projects up to the N' level. The possessor phrase is thus treated as a c-structure complement of the head noun of the possessor phrase (cf. Bresnan 2001, chapter 6.2) which is in line with its functional treatment as a POSS argument of the possessum; cf. section 2.6. Assuming a classical X' theoretic hierarchical structure of the NP this predicts that the possessor phrase should precede any postnominal modifiers of the head noun of the possessum phrase such as e.g. other PPs. This is indeed the case in examples (2.355)–(2.357) given above. However, orders where the possessor PP follows other postnominal modifiers are also possible; cf. examples (2.358), (2.359), and (2.360) and example (2.343) above.

- (2.358) *de andeel in Sleswig-Holsteen vun de plattsnacker
the percentage in Schleswig-Holstein of the Low Saxon speakers
“the percentage of Low Saxon speakers in Schleswig-Holstein”*

- (2.359) *dat Bild ut dat Johr 1823 vun de Moler Siegfried
the picture from the year 1823 of the painter Siegfried
Bendixen
Bendixen*

“the picture of the painter Siegfried Bendixen from the year 1823”

(2.360) *de arbeit no buten vun't Landdag*
 the work to outside of=the Landtag

“the public relations of the Landtag” (Regional parliament of a German Land)

I have tested the acceptability of different word orders in prepositional possessive phrases with a constructed minimal pair.⁸³ While all of my informants found example (2.361) with the more “canonical” order in which the possessor PP is located immediately adjacent to the head noun of the possessum phrase and precedes another PP modifier to be perfectly grammatical, their intuitions varied somewhat on example (2.362) with the reverse ordering of the two PPs. One informant judged this order to be fully acceptable, while another considered it slightly odd. The third informant rejected it as entirely ungrammatical. Finally, my fourth informant told me that example (2.362) was fine if the prepositional possessive phrase was used contrastively to refer to *my brother's house in Hamburg* as opposed to e.g. *my brother's house in Bremen* (Friedrich W. Neumann, p.c.).

(2.361) *Dat Huus vun mien Broder in Hamborg is bannig groot.*
 the house of my brother in Hamburg is really big

“My brother's house in Hamburg is really big.”

(2.362) *Dat Huus in Hamborg vun mien Broder is bannig groot.*
 the house in Hamburg of my brother is really big

“My brother's house in Hamburg is really big.”

It thus seems to be the case that the possessor phrase in a prepositional possessive construction can in principle be separated from the head noun of the possessum phrase by other postnominal modifiers. Pragmatic factors such as information structure and

⁸³As these examples were presented without any further context the acceptability judgments for the “non-canonical” order might be lower than if I had carefully crafted an appropriate context (see also below).

contrastive focus seem to play a role in determining whether this “non-canonical” order is allowed. I therefore propose to analyze the possessor PP in Low Saxon in a more flexible manner without confining its position too much by the c-structure grammar; especially since the analysis will also have to accommodate examples in which the possessor PP precedes the possessum phrase;⁸⁴ cf. examples (2.363), (2.364), (2.365) and (2.366).

(2.363) *Jerrad treckte sik [von Oman een ollen Rock] an.*
 Jerrad put himself of grandma-ACC an old skirt] on
 “Jerrad put on an old skirt of grandma’s.”

(2.364) *Ick bün doch woll [von de Bedüdensten een].*
 I am really of the most important people one
 “I am really one of the most important people, aren’t I?”

(2.365) *Dizze collectie hef [van elk prentboek vijf exemplaoren].*
 this collection has of every printed book five copies
 “This collection has five copies of every printed book.”

(2.366) *Blots [vun de’n Gåårn dat büterst Enn] is afscheert*
 only of the garden the outermost corner is partitioned off
mit’n Heck.
 with=a hedge
 “Only the outermost corner of the garden is partitioned off with a hedge.”

Note that the combination of possessor phrase plus possessum phrase in example (2.366) precedes the finite verb which stands in the second position in the clause. This represents good evidence for the constituent status of the combination of preposed possessor PP and following possessum phrase.

The positional flexibility of the *van/von/vun*-PP is even greater in that it can be topicalized on its own without the rest of the possessum phrase; cf. examples (2.367) and (2.368). I have indicated the usual position of the topicalized phrase inside the

⁸⁴This ordering is also possible in German; cf. Fortmann (1996, pp. 98ff) and De Kuthy (2002).

prepositional possessive construction with a *t*. This does however not mean that I necessarily advocate a trace-based analysis for such examples.

- (2.367) *Ok [vun den Boom up disse Siet] sünd noch [en poor Telgen t]*
 Also of this tree on this side are still some branches
to seihn.
 to see
 “Some branches of the tree on this side can also still be seen.”

- (2.368) *Ok [vun de Deerten] schall [[von elkeen Oort t] een Poor]*
 Also of the animals shall of every species one pair
an't Leven blieven.
 alive stay
 “And one pair of every species of animals, too, is supposed to stay alive.”

- (2.369) *[Een Poor von [elkeen Oort vun de Deerten]] schall ok*
 one pair of every species of the animals shall also
an't Leven blieven.
 alive stay
 “And one pair of every species of animals, too, is supposed to stay alive.”

Example (2.368) shows that it is even possible to have topicalization and preposing of two possessor PPs at the same time where the topicalized PP is interpreted as the possessum of the head noun of the DP-internally preposed PP. For clarification, I give a more “canonical rendition” of this example in (2.369). However, not only the possessor phrase can be topicalized on its own, the same is possible for the possessum phrase as shown by example (2.370).

- (2.370) *[Blöden] warrt blots [t vun Malva silvestris] sammelt.*
 blossoms are only of Malva silvestris collected
 “Only blossoms of Malva silvestris are collected.”

In addition to DP internal preposing and topicalization longer possessor phrases can also be extraposed; cf. example (2.371).

- (2.371) *Un uck allerhand [Saatkraam t] will he kaam laten [vun*
 and also all sorts of seeds wants he come let of
Planten, de wi överhaupt noch ni kennt].
 plants that we at all still not know
 “And he also wants to order all sorts of seeds of plants that we don’t know at
 all yet.”

Besides the positional flexibility of the parts of the prepositional possessive construction demonstrated by the preceding examples, this construction is also flexible with regards to the kinds of phrases that can be used as possessive phrases. Example (2.372) contains another PP as complement of *van*. The structure of example (2.373) is not entirely clear but the possessor phrase looks like a so-called free relative clause.

- (2.372) *de positie van veur mien val*
 the position of before my fall
 “the position I had before I fell”

- (2.373) *den kreenk van wel in t plat schrif*
 the circle of who in the Low Saxon writes
 “the circle of those who write in Low Saxon”

The lexical entry of the preposition *van/von/vun* therefore has to be specified in a way that allows different kinds of complements (cf. also Butt et al. 1999, p. 130).

This syntactic flexibility of the possessor phrase of the Low Saxon prepositional possessive construction is not a peculiarity of the possessive *van/von/vun*-phrase, however, but a general characteristic of most Low Saxon prepositional phrases; cf. also Fortmann (1996, pp. 98ff) and De Kuthy (2002) for German. The pronoun *wi* (we) in (2.374) for example is modified by a locative PP. In example (2.375), another locative PP has been topicalized separately. Last but not least, the PP in example (2.376) appears extraposed after the nonfinite verb in sentence final position.

(2.374) *Wi hier int oole Gorstedt*
 we here in=the old Gorstedt
 “we here in old Gorstedt”

(2.375) *Aver ok [ut de Bibel] müßt [wat t] to seihn sien.*
 but also from the bible must something to see be
 “but there should also be something from the Bible to be seen”

(2.376) *ik will Se ok'n Bild verkloren, ok ut de Kunsthall in*
 I want you also=a picture explain also from the Kunsthalle in
Hamborg
 Hamburg
 “I also want to explain a picture to you also from the Kunsthalle in Hamburg”

I will therefore not analyze the various discontinuous uses of the prepositional possessive in any detail but leave these issues for research on the syntactic properties of the Low Saxon PP in general.

However, I take the positional flexibility of the prepositional possessive construction as an argument for an analysis in which the possessive relation is not established by a certain c-structure position of the possessor phrase (as e.g. in Chisarik and Payne 2001) but by the preposition *van/von/vun* itself. Parallel to my analyses of the prenominal possessive constructions I suggest that the preposition *van/von/vun* should be considered as a possessive marker that does not contain any specific semantic content but is only used to signal a possessive construction. In many LFG analyses a distinction is made between so-called semantic prepositions that carry their own semantic content and so-called non-semantic prepositions that serve as markers of oblique objects of verbs (cf. e.g. Butt et al. 1999, pp. 125–129). I propose that the possessive marking preposition *van/von/vun* should be analyzed as a non-semantic preposition that does not embed its c-structure complement as an f-structure complement OBJ. Instead, it merely marks the possessor phrase with a feature PCASE *poss*. The lexical entry that I propose for *van/von/vun* is given in figure (2.377).

$$(2.377) \quad \text{vun} \quad \text{P} \quad \begin{array}{l} (\uparrow \text{PCASE})=\text{poss} \\ (\uparrow \text{CASE})=\text{acc} \end{array}$$

Besides marking its c-structure complement as a possessor the preposition also assigns accusative case to the possessor DP. As the preposition does not select for an f-structure complement I have to assume a PP c-structure rule with a functional annotation that projects the information from the preposition and the possessor DP as co-heads into the same f-structure; compare the standard PP rule in figure (2.378) with the non-standard rule for the non-semantic preposition *van/von/vun* in figure (2.379); cf. also the structure of the English *of*-possessive assumed by Chisarik and Payne (2001) above.⁸⁵

$$(2.378) \quad \text{PP} \quad \longrightarrow \quad \begin{array}{cc} \text{P} & \text{DP} \\ \uparrow=\downarrow & (\uparrow \text{OBJ})=\downarrow \end{array}$$

$$(2.379) \quad \text{PP} \quad \longrightarrow \quad \begin{array}{cc} \text{P} & \text{DP} \\ \uparrow=\downarrow & \uparrow=\downarrow \end{array}$$

In order for the information from the possessor DP to be projected into POSS function of the possessum phrase I will again assume a special functional annotation that is used to annotate PP nodes in the c-structure tree and that picks up the PCASE possessive marking feature and projects the information from the PP into the POSS function in the f-structure of the possessum phrase. I propose to allow all PP nodes to be freely annotated with the functional annotation given in figure (2.380).

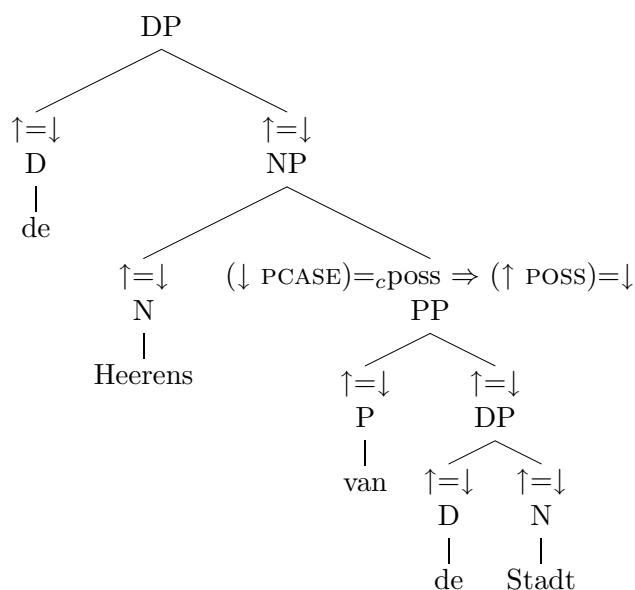
$$(2.380) \quad (\downarrow \text{PCASE})=\text{cposs} \Rightarrow (\uparrow \text{POSS})=\downarrow$$

⁸⁵Additional rules to allow the preposition to be used with prepositional or sentential c-structure complements could be added to model examples such as (2.372) and (2.373)

The free annotation of all PPs with this functional equation should not be problematic because the functional equation is formulated as an implication and therefore only applies to PPs with an f-structure that contains the feature *PCASE poss*. I assume that this feature is only projected by the possessive, non-semantic preposition *van/von/vun*. Other prepositions and also the semantic version of *van/von/vun* with a directional meaning do not assign the value *poss* to the feature *PCASE* and are therefore never interpreted as possessive markers.⁸⁶

Figure (2.381) exemplifies my analysis with a simple instance of the prepositional possessive construction.

(2.381)



The resulting f-structure is given in figure (2.382). The preposition does not contribute any syntactic features or semantic information to this f-structure but simply acts as a possessive marker.

⁸⁶If other prepositions can be used as possessive markers, such as e.g. *avn* (on) which can be employed to denote a kinship relation in Plautdietsch, these prepositions will also project the *PCASE poss* feature.

(2.382)	<table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding: 2px 5px;">PRED</td> <td style="padding: 2px 5px;">‘lord-of<(↑ POSS)>’</td> </tr> <tr> <td style="padding: 2px 5px;">GEND</td> <td style="padding: 2px 5px;">m</td> </tr> <tr> <td style="padding: 2px 5px;">NUM</td> <td style="padding: 2px 5px;">pl</td> </tr> <tr> <td style="padding: 2px 5px;">CASE</td> <td style="padding: 2px 5px;">nom</td> </tr> <tr> <td style="padding: 2px 5px;">POSS</td> <td style="padding: 2px 5px;"> <table style="border-collapse: collapse; border-left: 1px solid black; border-right: 1px solid black; padding: 2px 5px;"> <tr> <td style="padding: 2px 5px;">PRED</td> <td style="padding: 2px 5px;">‘city’</td> </tr> <tr> <td style="padding: 2px 5px;">GEND</td> <td style="padding: 2px 5px;">f</td> </tr> <tr> <td style="padding: 2px 5px;">NUM</td> <td style="padding: 2px 5px;">sg</td> </tr> <tr> <td style="padding: 2px 5px;">CASE</td> <td style="padding: 2px 5px;">acc</td> </tr> <tr> <td style="padding: 2px 5px;">PCASE</td> <td style="padding: 2px 5px;">poss</td> </tr> </table> </td> </tr> </table>	PRED	‘lord-of<(↑ POSS)>’	GEND	m	NUM	pl	CASE	nom	POSS	<table style="border-collapse: collapse; border-left: 1px solid black; border-right: 1px solid black; padding: 2px 5px;"> <tr> <td style="padding: 2px 5px;">PRED</td> <td style="padding: 2px 5px;">‘city’</td> </tr> <tr> <td style="padding: 2px 5px;">GEND</td> <td style="padding: 2px 5px;">f</td> </tr> <tr> <td style="padding: 2px 5px;">NUM</td> <td style="padding: 2px 5px;">sg</td> </tr> <tr> <td style="padding: 2px 5px;">CASE</td> <td style="padding: 2px 5px;">acc</td> </tr> <tr> <td style="padding: 2px 5px;">PCASE</td> <td style="padding: 2px 5px;">poss</td> </tr> </table>	PRED	‘city’	GEND	f	NUM	sg	CASE	acc	PCASE	poss
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CASE	nom																				
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PRED	‘city’																				
GEND	f																				
NUM	sg																				
CASE	acc																				
PCASE	poss																				

Note that the lexical entry of the preposition *van/von/vun* does not contain any information about the possessor and most importantly no pronominal PRED feature. This correctly models the fact that a prepositional possessor phrase alone cannot be used in the same way as the “elliptical” examples of the pronominal possessive constructions but must always occur with some overt material in the possessum phrase to project the f-structure of the possessum; cf. examples (2.383) and (2.384).

(2.383) *En [die van Albert Haar], hoe zol't daor met staon.*
 and those of Albert Haar how should=it there with stand
 “And those of Albert Haar, how is the situation with those?”

(2.384) **En van Albert Haar, hoe zol't daor met staon.*
 and of Albert Haar how should=it there with stand
 “And those of Albert Haar, how is the situation with those?”

In most examples of the prepositional possessive construction that are used in a parallel fashion to the “elliptical” examples of the pronominal possessive constructions a stressed definite article (better called high-frequency demonstrative) occurs in the possessum DP; cf. example (2.385).

(2.385) *As je allenneg binnen, lieken joen voutstappen dai van
 when you alone are resemble your footsteps those of
 n aander dai dichtbie achter je aankomen.
 another that closely behind you come*

“When you are alone your footsteps resemble those of someone else that follow closely behind you.”

The analysis that I have proposed here can easily model simple examples of coordinated possessor and possessum phrases. Example (2.386) contains a coordination of two DP possessor phrases. The possessor phrase is interpreted with wide scope over both conjuncts. I simply assume that the PP attaches to the coordinated DP and is thus not embedded in the possessum phrase. Note that an analysis where the possessor PP attaches to a DP rather than to a head noun is needed anyway for examples with pronominal possessum phrases such as those given in (2.349) and (2.350) unless we want to assume that such examples contain a headless NP that only consists of the prepositional possessor phrase.

(2.386) *dee Wartel en daut Jeschlajcht fonn Doft*
 the root and the offspring of David
 “the root and offspring of David”

Figure (2.387) gives the c-structure and for this example.

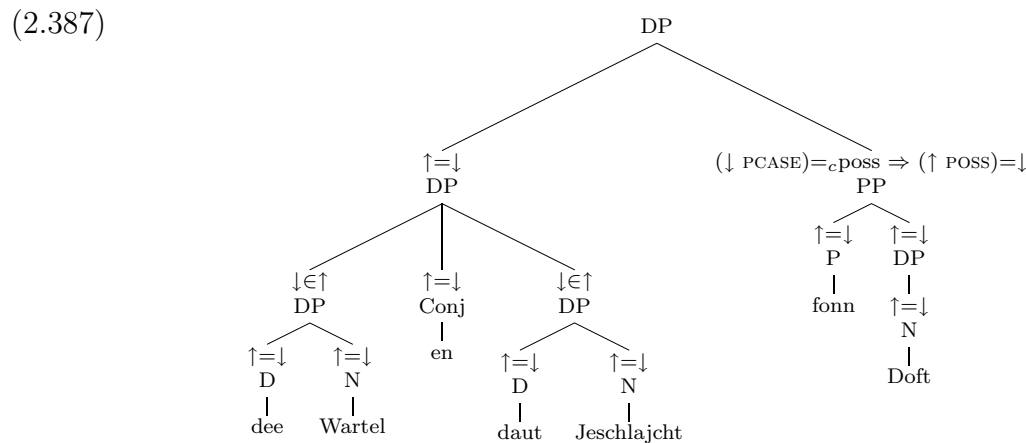
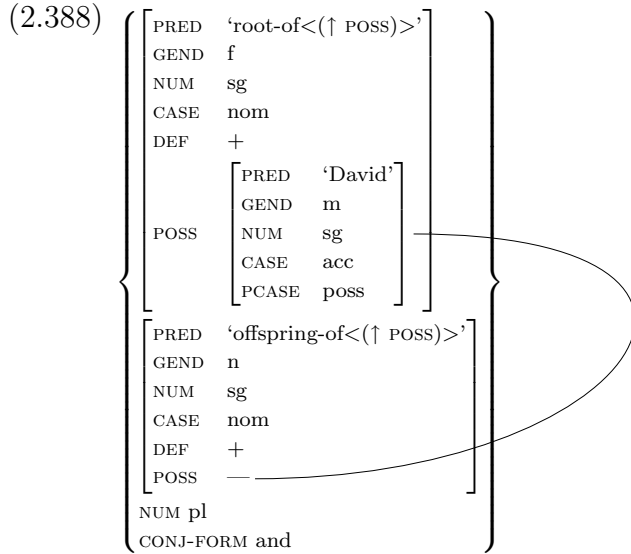


Figure (2.388) contains the corresponding f-structure. The information from the possessor PP is distributed over the two conjuncts.

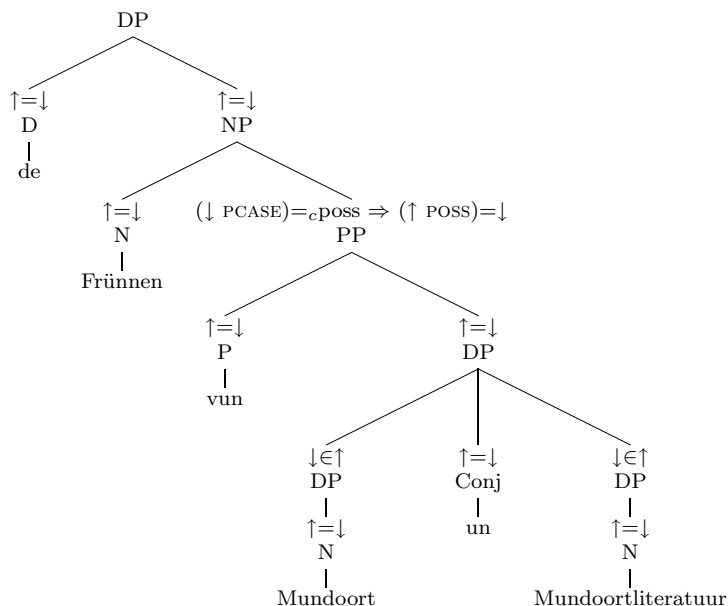


An coordination of two possessor DPs as in example (2.389) is also straightforward.

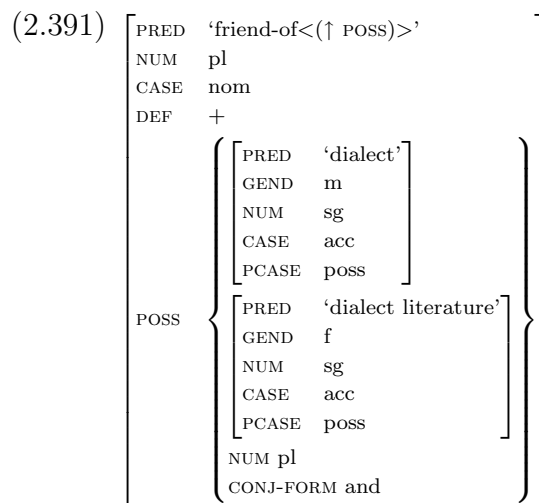
- (2.389) *de Frünnen vun Mundoort un Mundoortliteratuur*
 the friends of dialect and dialect literature
 “the friends of dialects and dialect literature”

The preposition assigns a *PCASE poss* feature to both conjuncts and the coordination of the two DPs therefore also contains the feature *PCASE* and can thus be projected into the *POSS* function of the possessor phrase. Figure (2.390) gives the *c*-structure for this example.

(2.390)



The resulting f-structure is shown in figure (2.391). This time the conjuncts in the possessor phrase are projected into a set of f-structures which is the value of the feature `POSS` of the possessum phrase.



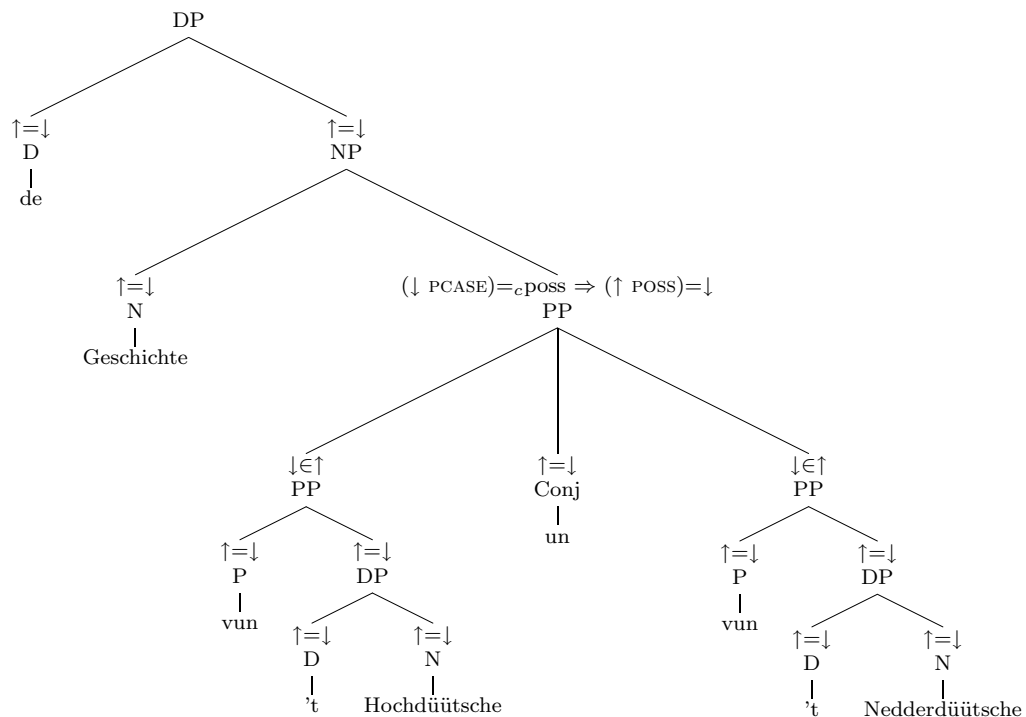
Finally, examples like the one in (2.392) with multiple instances of the possessive preposition *van/von/vun* occur quite often in my corpus. My analysis predicts that this should be the case because it does not matter whether each conjunct of a

coordinated possessor phrase is marked individually with the PCASE feature or via distribution of the feature from one preposition over a conjunction of DPs.

- (2.392) *de hele Geschiedt vun't Hochedüütsche un vun't Nedderdüütsche*
 the whole history of=the High German and of=the Low German
 “the whole history of High German and Low German”

The c-structure of example (2.392) without the adjective *hele* is given in figure (2.393). The resulting f-structure is similar to that in figure (2.391).

(2.393)



The general approach that I have taken in this section should be flexible enough to be extended to more complicated syntactic structures that involve discontinuous prepositional possessive constructions. This could be achieved e.g. by introducing

inside-outside or outside-inside functional uncertainty formulas into the possessive functional annotation from figure (2.380) (cf. Bresnan 2001, chapter 4.8). Such an approach could also be used to analyze examples like (2.394) that involve some form of right-node raising in that the prepositional possessor phrase scopes over two PP possessum phrases instead of over two DPs.

- (2.394) *[[in de Spraak] un [na dat Leven] vun de lüttern*
 in the language and according to the life of the little
 Lüüd]
 people
 “in the language and according to the life of the common people”

2.6 Further issues

Throughout the preceding chapter I have based my analyses on a large number of authentic examples from my corpus of Low Saxon texts. I believe that this corpus-based method has been very beneficial for giving a thorough overview of the syntactic phenomena relevant for the analysis of the different possessive constructions of modern Low Saxon. It has also made it possible to discuss examples from a considerable number of different dialects without having to consult a large number of informants which would have been practically impossible within the scope of this thesis.

The analyses of prenominal constructions in the preceding sections raise an interesting question. Are we really dealing with three separate constructions or should at least two of them be considered as subcases of one construction. My pro-drop analysis of the possessive linker construction suggests that the possessive pronoun and linker constructions should really be considered as one construction which can be used both with a DP possessor phrase and without one. However, in contrast to the possessive linker construction the s-possessive cannot be used with a personal pronoun as

possessor phrase. This complementary distribution could be taken as evidence for an analysis that regards the possessive pronouns as special suppletive, pronominal forms of the s-possessive. Taylor (1996, p. 1) indeed argues for such an analysis of the English possessive pronouns. However, this issue is not so straightforward in a language like Low Saxon that uses more than one pronominal possessive construction. In my opinion, the possessive linker and possessive pronoun constructions could be analyzed as two subcases of one construction in Low Saxon. Apart from their structural similarity this is also suggested by the fact that the use of the Low Saxon s-possessive is rather restricted in comparison to the versatility of the possessive pronoun and possessive linker constructions. The quantitative study in chapter 3 might reveal arguments for or against my suggestion.

I have left out many issues regarding the analysis of the four possessive constructions in LFG that warrant further discussion. One important area that I have not discussed at all is how the grammatical function of the possessor phrase should best be modeled in LFG. Throughout this chapter I have assumed that the possessor phrase is always projected into an argument function called POSS and that the head word of the possessum phrase is augmented by a lexical template to subcategorize for a POSS argument. However, an example like (2.395) shows that one possessum phrase can sometimes be accompanied by multiple possessor phrases which results in problems with the uniqueness principle with my simple analysis.

(2.395) *unse verdreihete Welt vun hiiüt*
 our-F.SG crazy-F.SG world.F.SG of today
 “our crazy world of today”

Similar problems arise with deverbal nouns which have traditionally been in the center of the research on the syntax of possessive constructions but which I have not discussed in any detail. I will include the possible use of the four constructions

with deverbal nouns in the quantitative study in chapter 3. The question of the grammatical function of the possessor phrase is not specific to Low Saxon and I will therefore only refer the reader to current research on this issue in the LFG framework. Two recent articles about this subject are Laczkó (1997) and Chisarik and Payne (2001).

In order to limit the scope of this thesis, I have also skipped over many issues arising in the interaction of the possessive constructions with other syntactic phenomena such as non-constituent coordination, ellipsis, topicalization, extraposition, and more. A lot of questions regarding the syntax of the Low Saxon possessive constructions are still left unanswered and provide an interesting field for further research.

Chapter 3

A corpus study of Low Saxon possessive constructions

3.1 The Low Saxon possessive constructions as a case of syntactic choice/variation

In the preceding chapter I have presented an in-depth syntactic analysis of the four most productive possessive constructions of modern Low Saxon. However, as I have argued in the introduction to this thesis the formal syntactic analysis constitutes only one part of a thorough description of this subject. The existence of different possessive constructions with more or less different syntactic structures immediately raises the question why a language like Low Saxon should allow for the luxury of choosing between at least four different possible ways of expressing possession using nominal phrases.

Human languages generally avoid total synonymy of different forms of expression. Alternative ways of conveying the same meaning tend to get socially, stylistically, or functionally specialized; cf. e.g. Altenberg (1982, p. 11) and Rosenbach (2002,

pp. 33, 94, 300). The choice between alternative constructions is therefore usually not random or simply so-called free variation but quite systematic and governed by the influence of various linguistic and extra-linguistic factors.

The fact that syntactic variation tends to be patterned and rule-governed rather than random also restricts the ‘freedom of choice’ in language. [. . .] If the ‘choice’ between alternative forms of expression is to a large extent determined by various linguistic and extra-linguistic factors, an important task in linguistic research must be to identify and evaluate these factors. (Altenberg 1982, pp. 11–12)

My goal in this second part of the thesis is to study systematically to what extent the usage of the four most productive nominal possessive constructions of modern Low Saxon does overlap and to what extent there are systematic differences in the typical uses of the four constructions. In this thesis, I will only be concerned with linguistic and discourse-functional factors (see section 3.3) and largely disregard social and stylistic variables. This deliberate restriction is due to my own area of interest in syntactic variation and to various practical reasons such as the lack of social information about the authors of the various texts in the corpus and the need to keep the amount of work for this thesis manageable.

Before I go on to describe the general approach that I will take in this chapter I would like to justify treating the choice between the four possessive constructions as an instance of syntactic variation. The study of syntactic variation in general only makes sense if we consider alternative ways of “saying the same thing” (Labov 1972, p. 271). It would hardly be interesting from a linguistic point of view to find factors that influence whether somebody utters *I want to eat ice cream* or *the birds are singing*. Studying the choice between alternative constructions thus presupposes that they are semantically equivalent and can indeed be used to convey the same meaning.

Note that it seems to be impossible to prove that the meaning of two constructions is entirely the same (cf. Rosenbach 2002, pp. 22–23); nor is it likely that this will be the case given that we are trying to isolate contextual factors which favor the use of one construction over another. There will always exist very subtle contextual or connotational meaning differences between largely equivalent constructions. The restriction of semantic equivalence therefore has to be loosened a little and defined in a way appropriate for the research problem e.g. as a requirement of truth-conditional equivalence (cf. Weiner and Labov 1983). When I produced my taxonomy of possessive constructions of modern Low Saxon in section 2.1, I used one semantic criterion to determine whether a nominal construction should count as a possessive construction or not. I required that all possessive constructions examined in this thesis be able to express the prototypical possessive relations of ownership, kinship, and part/whole of physical objects (including body parts). All four constructions that I have analyzed in detail in chapter 2 namely the possessive pronoun construction, the possessive linker construction, the s-possessive, and the prepositional possessive construction can be used to express these three prototypical possessive relations and thus overlap considerably in the range of their possible meanings; cf. examples (3.1)–(3.12).¹

(3.1) *sien Huus*
his house
“his house”

(3.2) *Ruth ehr Huus*
Ruth her house
“Ruth’s house”

(3.3) *Oma’s Huus*
grandma=POSS house
“grandma’s house”

(3.4) *dat Huus vun de CDU*
the house of the CDU
“the house of the German
Christian Democrats”

(3.5) *Mien moe*
my mother
“my mother”

(3.6) *Jezus zien moe*
Jesus his mother
“Jesus’ mother”

¹These are actual examples taken from my corpus and therefore contain different dialectal variants and spellings.

- | | |
|--|--|
| (3.7) <i>Kurts Moder</i>
Kurt=POSS mother
“Kurt’s mother” | (3.8) <i>de moeke van Jezus</i>
the mother of Jesus
“the mother of Jesus” |
| (3.9) <i>ehr Ogen</i>
her eyes
“her eyes” | (3.10) <i>de Deern ehre Oogen</i>
the girl her eyes
“the girl’s eyes” |
| (3.11) <i>Broders Oog</i>
brother=POSS eye
“brother’s eye” | (3.12) <i>de Oogen vun de annern</i>
the eyes of the others
“the eyes of the others” |

The following anecdotal examples from the corpus show that the different constructions seem to be exchangeable in principle even within a single context of use within a text written in a single dialect. Example (3.13) contains two possessive constructions with basically the same meaning: the first is encoded as an s-possessive, the second as a prepositional possessive construction. Example (3.14) contains two references to different web sites (occurring in the same document): one is expressed with the s-possessive; the other with the possessive linker construction. Last but not least, example (3.15) contains two quotes from the Plautdietsch Bible, one from Matthew 3:3 and one from John 1:23 which show that essentially the same meaning can be expressed either with the possessive linker construction or with the prepositional possessive construction.

- (3.13) *In’n bild sit wat in fan dat, wat’t wîst, dat*
 in=a picture sits something in of that what=it shows that
*owerdüüert **däi tidens lop**, word henutnomen ut*
 outlasts the.PL time.PL=POSS course is taken out out
***däi lop fan d’ tid**, käent gin oller meer.*
 the.M.SG course.M.SG of the.F.SG time.F.SG knows no age more
 “A picture contains some part of what it shows, that outlasts the course of
 time, is taken out of the course of time, knows no age anymore.”

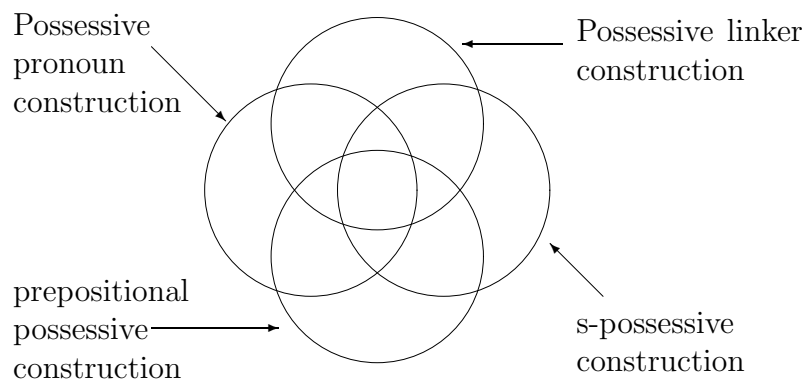
- (3.14) *Bübi Gerdaus* *plattdüütsche Eckernförde-Sied* [...] *Martin*
 Bübi Gerdau=POSS Low Saxon Eckernförde-page Martin
Stricker sien *feine* *Sied*
 Stricker his.F.SG nice-F.SG page.F.SG
 “Bübi Gerdau’s Low Saxon web site about Eckernförde” [...] “Martin Stricker’s nice web page”
- (3.15) *eenem siene Stem dee* *enne Wiltness schricht* [...] *one his voice who/that in=the wilderness cries*
Ne Stem fonn eenem dee *enne Wiltnes schricht*
 a voice of one who/that in=the wilderness cries
 “a voice of one crying out in the wilderness”

I will take the semantic overlap of the different constructions demonstrated by all the preceding examples to be sufficient evidence to consider them semantically equivalent (in a looser sense) and to motivate a study of other, non-semantic factors for which the constructions might differ from each other. For a more careful and thorough discussion of the problem of syntactic variation and choice of construction see the excellent overview by Rosenbach (2002, chapters 3 and 5).

This second part of my thesis consists of a quantitative study on the usage of the different possessive constructions in modern Low Saxon. The objective of this study will be to give a characterization of the typical uses of each construction and to determine where the uses of the four constructions overlap and where they do not, i.e. to what extent there are contexts in which a choice between different constructions is possible and to what extent there are contexts in which one or more of the constructions are excluded. The circles in figure (3.16) represent the range of possible uses of the different possessive constructions. My goal is thus to determine the size and position of the circles that represent the individual constructions within the space of all possible contexts of use and to find out where and to what extent they overlap with the circles of the other constructions.²

²As I will examine more than two factors for their influence on the choice of possessive construction, the circles are actually regions in a higher dimensional space. Note that the region(s)

(3.16) Functional overlap between the four possessive constructions



3.2 Sampling of the corpus data

In order to be able to easily find relevant examples to illustrate the syntactic analyses in chapter 2 and as the basis for the quantitative study in this chapter I have manually worked through my 1,000,000 word corpus of Low Saxon texts and marked all possessive phrases that I encountered. I have found and labeled 24,598 instances of the various possessive constructions discussed in section 2.1. Although desirable, it would have taken too long to annotate all these instances in a detailed manner in order to obtain a huge sample of possessive phrases. I will therefore work with subsamples taken from these 24,598 instances of possessive constructions and annotate these subsamples in more detail according to the coding scheme outlined in section 3.5.

Before I start to discuss issues of subsampling, I would like to give an overview of the corpus of Low Saxon that I have used for the research presented in this thesis.

representing the use of one construction do not necessarily have to be contiguous.

Figure (3.17) provides a quick summary of the composition of the corpus in terms of regional dialects (roughly following traditional classifications) and text types. It also contains the abbreviations for the major dialects that I will use throughout this chapter, e.g. EF for the dialect of East Frisia, Germany. All major dialect areas of Low

(3.17) Dialects in the corpus

Abbr.	Dialects	Docs	Lines	Constr.	Text types
EF	Low Saxon dialects of East Frisia, Germany	56	3664	437	short stories, poems, songs, newsletters, other
EG	East Germany: the dialects of Brandenburg	19	1324	330	short stories, recipes
EN	East Netherlands: Drenthe, Twente	130	10612	1726	short stories, poems, songs, other
GR	Groningen in the north-east of the Netherlands	67	9674	2298	short stories, poems, other
NEG	North East Germany: Mecklenburg, Vorpommern	83	7290	1223	short stories, riddles, songs, newsletters
NWG	North West Germany: Hamburg, Bremen, Northern Lower Saxony, Schleswig-Holstein	1031	70937	12003	short stories, poems, lexicon articles, songs, news
PD	Mennonite Plautdietsch	263	23399	5975	New Testament
WP	Westphalia (and Eastphalia)	51	3395	505	short stories, poems, proverbs

Saxon are represented in the sample except for the dialect of Eastphalia, Germany, for which I just found one online text³ and the more southern dialects of the east of the Netherlands, such as Achterhoeks, Sallands, and Veluws. The varieties from the Dutch side of the border that are well represented in the corpus are the dialects of the

³I have grouped this one text with Westphalian because of the geographical and dialectal proximity between these two varieties.

province Drenthe and the northern parts of the province Overijssel, grouped together under the label East Netherlands (EN), and the dialect of Groningen. Although the corpus does not constitute a systematic sample of all different dialects of modern Low Saxon, it roughly reflects the amount of Low Saxon text in the different dialects available on the Internet. The number of online texts seems to be highest for the varieties of North West Germany followed by the dialects of Drenthe and Groningen in the Netherlands. I am confident that the corpus is sufficiently regionally stratified to allow conclusions about possible differences in the use of the possessive constructions in the different regional varieties.

Most texts in the corpus are original Low Saxon short stories. The corpus also contains a fair number of poems and songs. In addition to these literary text types it also comprises news articles from two northern German radio stations, NDR 90,3 in Hamburg and Radio Bremen, articles from a Low Saxon online encyclopedia, and newsletters of various Low Saxon organizations. For the Mennonite Plautdietsch dialect I have included the entire translation of the New Testament by Reimer (2001). Note that there is thus a major difference between the Plautdietsch part and the rest of the corpus in terms of text style: mostly literary vs. biblical.⁴

Figure (3.18) provides an overview of the frequency of the different possessive constructions in the whole corpus. It also lists the counts for the individual dialects. Throughout this chapter, I will use the following abbreviations for the different possessive constructions: POSSP (possessive pronoun construction), LK (possessive linker construction), PPC (prepositional possessive construction), SPOSS (s-possessive construction), and OTH (all others such as the old genitive or the adjectival possessive construction, etc.). In figure (3.18) I additionally give the percentage of “elliptical”

⁴According to Altenberg (1982, p. 256–263) biblical prose has its own particular style that exerted considerable influence on the choice of possessive construction in his corpus of 17th English texts. It is therefore not entirely clear whether any particularities in the choice of possessive construction in the Plautdietsch texts are due to style or dialect.

possessive phrases, i.e. possessive phrases with only an implicit possessum phrase, and the percentage of possessum phrases that contain deverbal nouns. The relative

(3.18) Frequency of the different possessive constructions in the corpus

Dialect	POSSP	LK	PPC	SPOSS	OTH	ELL	VERB
EF	290 (66.5 %)	15 (3.5 %)	128 (29 %)	4 (1 %)	0 (0 %)	4 (1 %)	29 (6.5 %)
EG	258 (78 %)	7 (2 %)	63 (19 %)	1 (0.5 %)	1 (0.5 %)	7 (2 %)	8 (2.5 %)
EN	871 (50 %)	35 (2 %)	822 (47.5 %)	6 (0.5 %)	1 (0 %)	4 (0 %)	213 (12.5 %)
GR	1424 (62 %)	32 (1.5 %)	831 (36 %)	7 (0.5 %)	4 (0 %)	11 (0.5 %)	169 (7.5 %)
NEG	913 (75 %)	39 (3 %)	253 (21 %)	13 (1 %)	5 (0 %)	3 (0 %)	54 (4.5 %)
NWG	7023 (58.5 %)	558 (5 %)	4194 (35 %)	174 (1.5 %)	44 (0 %)	68 (0.5 %)	727 (6 %)
PD	3672 (61.5 %)	1444 (24 %)	790 (13.5 %)	7 (0 %)	62 (1 %)	58 (1 %)	372 (6 %)
WP	406 (80.5 %)	14 (3 %)	56 (11 %)	17 (3.5 %)	12 (2 %)	1 (0 %)	11 (2 %)
Total	14857 (60.5 %)	2144 (9 %)	7137 (29 %)	229 (1 %)	129 (0.5 %)	156 (0.5 %)	1583 (6.5 %)

frequencies of the different constructions vary quite a bit from dialect to dialect; cf. also figure (3.21). However, although most dialects differ significantly⁵ from each other in the exact relative frequencies, the general rank order of the relative frequencies of the four constructions is quite constant across dialects. In all dialects the possessive pronoun constructions (POSSP) is used most often yielding an average percentage of 60.5 %. In all dialects except for Plautdietsch (PD) the second most

⁵A row-wise comparison between the different dialects shows that the distribution of the possessive constructions is significantly different for all pairs of dialects except for the pair EG vs. NEG ($\chi^2 = 3.4948$, $df = 4$, $p = 0.4787$). The next most similar pairs are EF vs. NWG ($\chi^2 = 12.0842$, $df = 4$, $p = 0.01674$) and EF vs. EG ($\chi^2 = 12.0842$, $df = 4$, $p = 0.01674$).

frequent construction is the prepositional possessive construction (PPC) used approx. 29 % of the time on average. The texts in the dialects from the east of the Netherlands (EN) contained a higher percentage of PPCs (47.5 %) than texts written in the other dialects. The percentage of the SPOSS construction is uniformly low at around 1 % for most dialects and even lower for PD.⁶ There is a great discrepancy in the frequency of the LK construction between PD where LK is used in 24 % of all possessive phrases and all other dialects where the average relative frequency of LK is about 3 %. In sum, the frequency distribution of the different constructions seems to be roughly the same for all dialects in my corpus. The two notable exceptions are a higher than average occurrence of the LK construction in PD and a higher than average use of PPC in the EN dialects. The overall picture gives no particular reason to assume that the choice of one construction over the others is largely due to dialectal differences.⁷ Instead it seems to confirm my hypothesis that the different possessive constructions are used in (roughly) the same way in the various dialects although it remains to be determined why the LK construction occurs much more frequently in the PD texts than in texts written in the other dialects.

In order to see how much the text type can influence the relative frequencies of the four different constructions, I have built two subcorpora from texts written in the NWG dialect. The first subcorpus contains only news articles. The second one comprises various literary texts; cf. figure (3.19). Counting the different possessive constructions in these two subcorpora shows how great the influence of text type⁸ can be especially on the use of POSSP vs. PPC; cf. figure (3.20).

⁶This makes sense given that my Plautdietsch informants do not consider the s-possessive construction to be part of their dialect. Nonetheless, some examples occurred in the Plautdietsch Bible. This might be due to German influence, dialectal differences, or simply the biblical style.

⁷One would become suspicious e.g. if one dialect used the prepositional possessive construction 90 % of the time, while another used the possessive linker construction in 80 % of the cases.

⁸A pairwise comparison shows that the relative frequency of all constructions except LK is significantly different for the two different text genres ($\chi^2 \geq 6.5625$, $df = 1$, $p \leq 0.01041$).

(3.19) Comparison of different text genres (NWG)

Abbr.	Dialect	Docs	Lines	Constr.	Text types
NEWS	NWG	80	6502	901	only news
LIT	NWG	93	5876	1332	only literary texts

(3.20) Frequency of possessive constructions in news and literary texts (NWG)

Corpus	POSSP	LK	PPC	SPOSS	OTH
NEWS	169 (19 %)	24 (2.5 %)	702 (78 %)	6 (0.5 %)	0 (0 %)
LIT	885 (66.5 %)	50 (4 %)	351 (26.5 %)	34 (2.5 %)	12 (1 %)

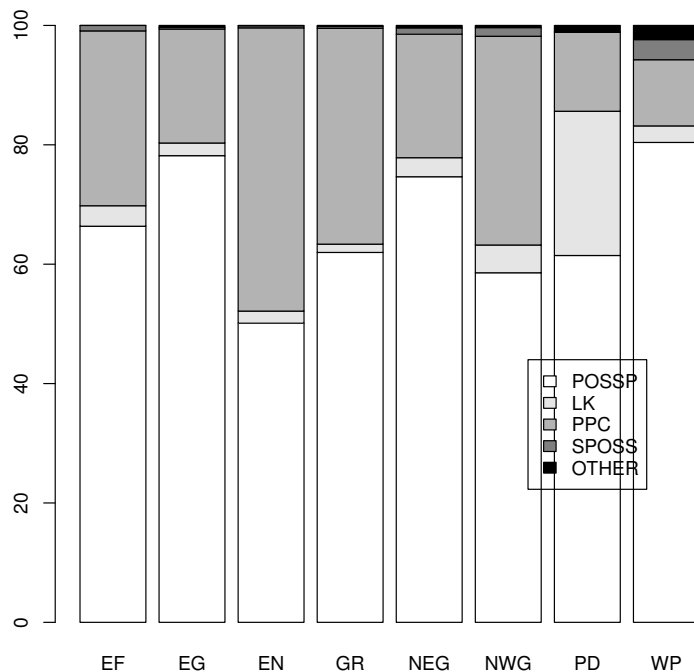
In the NEWS subcorpus 78 % of all constructions were prepositional possessive phrases, whereas only 26.5 % of all possessive phrases in the LIT subcorpus were expressed with the prepositional possessive construction. The difference is even greater for the possessive pronoun construction.

The relative frequencies of use of the four constructions alone thus do not allow for insights into possible usage differences in the different dialects. In this thesis, I am primarily interested in the contextual conditions in which a particular construction is chosen in a particular dialect. Differences in the relative frequency of a construction from one dialect to another could simply reflect differences in the relative frequency of those underlying contextual conditions in the texts in my corpus.⁹

In the quantitative study in this chapter I will therefore take reasonably sized subsamples of the instances of the different constructions and code them for the factors described in section 3.3 and 3.5. Ideally, one would simply select a fixed number of instances from the whole corpus randomly and thus respect the relative frequencies

⁹As pointed out by Rosenbach (2002, p.109) it is harder to control for various factors (such as e.g. text type) in a corpus study than in an experimental study.

(3.21) Relative Frequency of constructions in the different dialects



of the different constructions in the whole sample. However, because two of the four constructions I am interested in, namely the possessive linker construction and the s-possessive, are quite rare this method would result in the selection of only very few instances of these rare constructions. However, in order to get a good impression of the range of use of all four constructions a reasonable number of instances are needed for all of them. I have therefore decided not to respect the relative frequencies of the four constructions in the whole sample by extracting proportionate subsamples. Instead, I have taken so-called convenience samples by randomly choosing a fixed number of instances of every one of the four possessive constructions. This seems to

be the only practicable way to obtain a picture of the characteristic uses of the four constructions without having to annotate the whole corpus. However, it also means that I can only make use of statistical methods that rely on the contextual factors alone and do not take the prior probability of the different constructions into account. Table (3.22) shows the sample sizes for the four different constructions. I have selected all 229 s-possessive constructions from the whole corpus and 500 instances each of the other three constructions.

(3.22) Sampling of possessive phrases

Construction	Size of Subsample	Sampling Method
POSSP	500	random
LK	500	random
PPC	500	random
SPOSS	229	all

3.3 Relevant factors

The very detailed corpus study by Altenberg (1982) on the use of possessive constructions in 17th century English has shown that there are numerous linguistic and extra-linguistic factors that play a role in the choice of the English s-possessive vs. the prepositional possessive construction (Altenberg 1982, chapter 7). He lists such diverse factors as text style, the nature of the last phoneme of the possessor phrase, the syntactic modification of possessum and possessor phrase, the semantic relation between possessor and possessum, and the nature of the entities that possessor and possessum refer to, etc. I cannot attempt as thorough a study as Altenberg within the scope of this thesis. I will therefore limit myself to a number of syntactic, semantic, and discourse-functional factors that have been shown to influence the choice of

syntactic constructions in much recent work on syntactic choice and variation. Sections 3.3.1–3.3.3 introduce the different factors that I will consider in the quantitative study. The operational definitions for the coding of these factors are presented in section 3.5.

3.3.1 Morphosyntactic factors

The syntactic analysis of the four possessive constructions in chapter 2 has shown that there exists a major difference in syntactic structure between the three constructions in which the possessor phrase precedes the possessum on the one hand and the prepositional possessive construction on the other hand. Only the prepositional possessive construction allows the possessum phrase to be headed by determiners such as indefinite and definite articles and demonstratives. In the possessive pronoun and linker constructions and the s-possessive, the possessor phrase is in complementary distribution with the category of determiner. Moreover, prenominal possessor phrases in Low Saxon (and English) make the possessum definite;¹⁰ cf. also Rosenbach (2002, p. 30) and Anschutz (1997). Most studies that are interested in the choice of different possessive constructions therefore assume that only those possessive phrases with postnominal possessor phrase that contain a simple definite article are comparable to the prenominal constructions (cf. Rosenbach 2002, p. 30). They therefore a priori exclude all postnominal possessive constructions in which the head noun's determiner is indefinite or of any other special type such as e.g. a demonstrative. As the goal of this quantitative study is to delimit the range of possible uses of the different constructions and to find their most characteristic and prototypical uses, I have decided

¹⁰Most authors assume that prenominal possessor phrases in English cause the whole expression to be definite, e.g. Taylor (1996) and Rosenbach (2002). Some counterarguments are discussed in Taylor (1996, pp. 187–194). One possible counterargument for Low Saxon is that a sentence like *He is mien Fründ*. (He is my friend.) does not presuppose that I only have one unique friend. It is therefore more equivalent to *He is een Fründ vun mi*. (He is a friend of mine.) than to *He is de Fründ vun mi*. (He is the friend of mine/me.).

not to exclude any instances a priori. This allows me to get a better picture of the relative importance of the different uses of the prepositional possessive construction. If for example almost all instances of the PPC involved indefinite possessums we could conclude that the indefiniteness of the possessum is the one major factor that favors choosing the prepositional possessive construction. The first morphosyntactic factor that I will use is therefore the *type of determiner* used with both the possessor phrase and the possessum phrase. The variable *type of determiner of the possessum phrase* obviously only makes sense for the prepositional possessive construction because the other constructions do not allow for their possessum phrase to be accompanied by any determiner other than the possessive marker.

Another morphosyntactic (and semantic) factor is the *person of the possessor*. This factor correlates with the nominal type of the possessor because first and second person DPs are in most cases pronominal.¹¹

The final morphosyntactic factor I employ measures the complexity or weight of the possessor and possessum phrases. Instead of using some more theory-dependent notion of complexity, I will simply measure the length of possessor and possessum phrase in orthographic words. More theory-dependent measures of complexity are usually highly-correlated with this simple measure (Wasow 1997, p. 93). The factors *length of possessor phrase* and *length of possessum phrase* are coded as the number of words continuously occurring in the possessor and possessum phrase of a possessive phrase. For the additional factors *length of possessor phrase with discontinuous material* and *length of possessum phrase with discontinuous material* I also count extraposed words and add those to the original length factors.

¹¹I regard nominal phrases like *wi Kinner* (we children) that occur quite frequently in Low Saxon as non-pronominal, non-third person DPs.

3.3.2 Semantic factors

The first semantic factor that I will code for is the nature of the *possessive relation* between possessor and possessum. As already mentioned in the introduction in section 1.2, the constructions traditionally viewed as possessive constructions can encode a great range of different relations between possessor and possessum. In order to determine whether the nature of the possessive relation has an influence on the choice of construction I have to find a reasonably detailed taxonomy of the different “possessive” relations. The taxonomy that I will employ here, see table (3.23) is based on those discussed in Norde (1997, pp. 242–243) and Rosenbach (2002, pp. 29, 120–123). Different authors disagree whether all of the uses in table (3.23) should be considered as possessive relations or not. Although I used only three prototypical possessive relations as a criterion to identify the possessive constructions of Low Saxon and to delimit the range of constructions discussed in this thesis, I adopt a broad meaning of the term possessive relation here because all of the relations enumerated in table (3.23) can be expressed by at least one of the identified Low Saxon possessive constructions and it will be interesting to see how much the four possessive constructions differ in their semantic versatility and where they do and do not overlap in their range of meaning.

The second semantic factor *definiteness* is related to the morphosyntactic variable *type of determiner*. It can only have the two values: *definite* and *indefinite*. I include this factor because the relation between the type of determiner and the definiteness of a DP in Low Saxon is not always straightforward. Proper names e.g. mostly occur without a determiner but are usually considered inherently definite.

(3.23) Taxonomy of possessive relations

Relation	Characterization	Examples
Possessive		
kinship	possessum has a social relationship with possessor	<i>Kurts Moder</i> (Kurt's mother) <i>sien Fründ</i> (his friend)
ownership	possessor owns possessum (prototypically permanent legal ownership)	<i>Möllers Koh</i> (Möller's cow)
part/whole	possessum is a physical part of possessor which is an inanimate object	<i>dat Dack vun een Hall</i> (the roof of a hall)
body part	possessum is a physical part of possessor which is a living being	<i>ehr Been</i> (her leg)
other pragmatic relations	other relations such as authorship, abstract possession, state, etc.	<i>uns Tiet</i> (our time)
Partitive		
set membership	possessum is a member of a group of people or things	<i>nüms vun uns</i> (no one of us) <i>en vun de Dörpslüüd</i> (one of the villagers)
Verbal		
subjective use	possessor is interpreted as an agent argument of a deverbal noun	<i>höör amhogkomen</i> (their rise)
objective use	possessor is interpreted as a patient argument of a deverbal noun	<i>dat sinnlose Morden vun junge Minschen</i> (the senseless killing of young people)
Others		
descriptive	possessor is a characteristic quality of possessum	<i>en Fru vun meisto dörtig Johrn</i> (a woman almost 30 years of age)
defining/appositive	possessor and possessum refer to the same entity, the possessor is usually a name and one specific instance of the class denoted by the possessum	<i>in't histoorsche Land vun Mesopotamien</i> (in the historical country of Mesopotamia)

3.3.3 Animacy and concreteness

The factor *animacy* has been shown to be relevant for many syntactic phenomena such as e.g. the so-called dative alternation in English by Thompson (1990) and Cueni et al. (2004) or differential object marking in various languages (Aissen 2003).¹² Moreover, it has been isolated as a very important factor in the alternation between the English s-possessive and the *of*-construction by Rosenbach (2002) and O'Connor et al. (2004). *Animacy* and the related factor *concreteness* (see below) are not properties of linguistic expressions themselves but of the entities they refer to. This is very clear for an expression like *the old one* which can be used to refer to person or a non-living object. *Animacy* in its simplest possible form distinguishes between referents that are living beings (animate) and referents which are nonliving entities (inanimate). There are differently fine-grained scales of animacy that have been proposed in the literature.¹³ Moreover, animacy hierarchies such as the one proposed by Silverstein (1976) often incorporate other aspects such as person, nominal expression type, or givenness.

Figure (3.24) gives the animacy hierarchy that I will use. It distinguishes between the two clearly animate levels *Human* and *Animal* which should be self-explanatory, all clearly inanimate referents (*Inanimate*), and a level of intermediate animacy (*Organization*) which is used for groups of humans considered as a collective and not as individuals, e.g. a sports team.

(3.24) Human > Animal > Organization > Inanimate

Concreteness distinguishes between concrete entities that can be touched or perceived by the five senses and abstract concepts such as e.g. love, freedom, or justice.

¹²See Dahl and Fraurud (1996) and Yamamoto (1999) for an overview over the influence of animacy on syntax.

¹³Notions like *animacy* and *concreteness* are probably better viewed as continuous but they are usually treated as discrete in analyses such as the present one.

For the factor *concreteness* I only distinguish between two categories: *concrete* and *abstract*.

(3.25) Concrete > Abstract

3.4 Predictions

The predictions that I will make here are mostly based on the results of studies like Altenberg (1982), Rosenbach (2002), and O'Connor et al. (2004) which have examined the variation and choice between the English s-possessive and prepositional possessive constructions. My hypothesis is that the Low Saxon prepositional possessive construction will show a behavior parallel to that of the English *of*-possessive. This hypothesis seems justified because of a similar syntactic structure and parallel word order facts. It is less clear which Low Saxon possessive construction most closely corresponds to the English s-possessive. Superficially the Low Saxon s-possessive seems to be a good candidate. However, from the discussion in section 2.4 it seems clear that its use is much more restricted than that of the English s-possessive. The possessive linker construction could therefore be regarded as the Low Saxon analogue of the English s-possessive; cf. also Weerman and de Wit (1999) for a similar argument for Dutch.

3.4.1 Morphosyntactic factors

The first prediction concerns the factor *type of determiner of possessum*. As only the prepositional possessive construction allows the possessum phrase to contain determiners, such as indefinite articles, demonstratives, etc., I predict that a substantial percentage of the instances of the prepositional possessive construction will be used

in order for the possessum to be able to be accompanied by determiners other than the definite article.

For the variable *type of determiner of possessor phrase* I predict that a high percentage of all possessor phrases will contain definite determiners such as the definite article or demonstratives because these determiners are mostly used with given referents which are inherently better suited for use in a reference point construction.

The discussion in chapter 2 showed that although all possessive constructions but the s-possessive can in principle be used with pronominal possessors, the possessive linker and prepositional possessive constructions seem to occur only very rarely with pronominal possessors. I therefore predict that the percentages of pronominal possessors in these two constructions will be quite low. The number of first and second person possessors in all constructions but the pronominal possessive construction will be minuscule because first and second person possessors are realized as simple personal pronouns most of the time. Rosenbach (2002, p. 111) also argues that proper names can be considered “ideal” possessor phrases because they usually refer to humans, are inherently given,¹⁴ and usually short. One might expect therefore to encounter a substantial number of proper names used as possessor phrases especially in the pronominal possessive constructions. As proper names are mostly used without determiners in Low Saxon, I expect to find a high percentage of “null” determiners in possessor phrases.

The factor *length of possessor phrase* has been shown to influence the choice of possessive construction in English by Rosenbach (2002, pp. 173–176) and O’Connor et al. (2004) among others. These studies have found that longer possessor phrases raise the likelihood that the postnominal *of*-possessive is used instead of the s-possessive. Moreover, there is a general tendency in many (non verb-final) languages that shorter

¹⁴It is not clear to me whether proper names should really be considered inherently given; cf. also Rosenbach (2002, p. 56).

phrases tend to precede longer phrases (cf. Hawkins 2004). This principle was proposed quite early as the *Gesetz der wachsenden Glieder* (law of growing elements) by Behaghel (1910). I therefore predict that longer possessor phrases will favor the postnominal prepositional possessive construction. An alternative hypothesis is that it is rather the difference in length between the possessor and the possessum phrase, i.e. the interaction of the two factors *length of possessor phrase* and *length of possessum phrase*, that determines the choice of construction (cf. also Rosenbach 2002, pp. 36, 173–176). This hypothesis predicts that both the length of the possessor phrase and the length of the possessum phrase should have an influence on the choice of construction and that prenominal possessive constructions should be most common when the possessor phrase is shorter than the possessum phrases, less common when possessor and possessum phrase have approximately the same length and least common when the possessor phrase is longer than the possessum phrase.

3.4.2 Semantic factors

The experimental study in Rosenbach (2002, p. 168) has shown that the semantic factor *possessive relation* does have an influence on the choice of possessive construction in English and that more prototypical possessive relations such as *kinship*, *ownership*, and *part/whole* are more likely to be expressed by the prenominal s-possessive than less prototypical relations such as *states* (e.g. exhaustion, pride, joy) and *abstract possession* (e.g. future, career), see Rosenbach (2002, p. 121) for her definition of prototypical vs. non-prototypical possessive relations. I predict that parallel facts will hold in my corpus of Low Saxon.

Regarding the factor *definiteness of the possessum*, I predict that a considerable percentage of possessum phrases in the prepositional possessive construction will be indefinite because this is the only possessive construction that allows indefinite possessums at all (see above). Most possessor phrases in all constructions are predicted

to be definite because definiteness correlates with givenness and identifiability and according to the reference point hypothesis by Langacker (1999, p. 176) individuated and identifiable possessors should be preferred (especially in the prenominal possessive constructions) because they are better reference points. It has also been shown for English by Rosenbach (2002, pp. 152–153) that more topical, i.e. given, possessors result in a higher percentage of prenominal *s*-possessives vs. postnominal *of*-possessives in English than less topical possessors. I therefore predict that the prenominal possessive constructions will occur with a higher percentage of definite possessor phrases than the postnominal prepositional possessive construction.

3.4.3 Animacy and Concreteness

Regarding the possessive linker construction Saltveit (1983) quotes Weise (1910) for the observation that it is mostly used with human possessors. According to Norde (1997, p. 60) the Dutch possessive linker construction is also confined to animate possessors. These observations are in line with the findings of Altenberg (1982, pp. 146–149) and Rosenbach (2002, pp. 265–267) which show that animate possessors favor the use of the prenominal *s*-possessive in English. Conversely, Saltveit (1983, p. 317) also states that the Low Saxon prepositional possessive construction is most often used with “things”, i.e. concrete inanimates, as possessor. This again is parallel to the findings of Altenberg and Rosenbach for the English possessive alternation. Moreover, there seems to be a general tendency in the languages of the world to put animates before inanimates; cf. Yamamoto (1999, pp. 52–56). I therefore predict that my quantitative study will reveal a higher percentage of animate possessors in the prenominal possessive linker and *s*-possessive constructions than in the postnominal prepositional possessive construction. Moreover, I suspect that the possessive linker construction will be even more restricted in this regard than the *s*-possessive because the *s*-possessive seems to be largely confined to possessors that are proper names

which e.g. does not exclude geographical names; cf. section 2.4.

3.4.4 Summary of predictions

Table (3.26) gives an overview of the predictions I make for the characteristic uses of the four most frequent possessive constructions of modern Low Saxon. I predict that

(3.26) Predictions for the characteristic uses of the four possessive constructions

POSSP	SPOSS
<ul style="list-style-type: none"> – considerable percentage of first and second person possessors – possessum phrases of all lengths – used for all possessive relations – not restricted to animate possessors 	<ul style="list-style-type: none"> – possessor phrase mostly restricted to proper names – preference for short possessor phrases – preference for more prototypical possessive relations – preference for definite possessors – not restricted to animate possessors
LK	PPC
<ul style="list-style-type: none"> – preference for possessor phrases with definite articles or demonstrative determiners – preference for short possessor phrases – high percentage of proper names in possessor phrase – low percentage of pronominal possessor phrases – preference for definite possessors – preference for use with prototypical possessive relations – strong preference for animate possessors 	<ul style="list-style-type: none"> – considerable percentage of possessum phrases with indefinite or demonstrative determiners – high average length of possessor phrases – preference for shorter possessum phrases – more non-prototypical possessive relations than in the other constructions – larger percentages of indefinite possessums and possessors – preference for inanimate and non-concrete possessors

the differences between the postnominal prepositional possessive construction and the prenominal possessive constructions in their range of use will be greater than the differences between the three prenominal constructions. The prenominal constructions will exhibit a higher percentage of prototypical possessive relations. They will have shorter possessor phrases that are mostly definite and refer to animate, concrete, and given referents. In contrast to this, the prepositional possessive construction will occur more frequently with longer possessor phrases, will express less prototypical possessive relations, and will be used both with indefinite and definite possessum

and possessor phrases that are less animate and less concrete on average than those occurring in the prenominal constructions.

It is harder to make predictions for the differences of use between the three prenominal constructions. As the pronominal possessive construction is the only frequently used construction in which the possessor phrase is pronominal, it may “neutralize” some of the distinctions between prenominal and postnominal constructions and impose less restrictions than the other prenominal constructions. It may therefore occur more often with less prototypical possessive relations and less animate and less concrete possessor than the possessive linker and s-possessive constructions. The differences between the latter constructions will be that the s-possessive construction is mostly restricted to proper names (but not necessary those of people) whereas the possessive linker construction seems to be mostly restricted to animate possessors.

3.5 Coding of the data

In this section I will give a short overview of the principles I used in coding the data. After having marked all possessive constructions in my whole corpus and having randomly selected a smaller subsample of each of the four possessive construction as described in section 3.2, I annotated the selected possessive phrases in the corpus with tags for the different levels of the various factors discussed in the preceding two sections. I then extracted the annotation for individual factors with Perl scripts to build tables that could be used as data frames in the statistical software package R.¹⁵

The first variable that I coded for was *type of possessive construction* with the four levels POSSP, LK, SPOSS, and PPC. The possessive phrases were classified according to the syntactic analyses given in chapter 2. With regards to the SPOSS construction I excluded doubtful cases where the possessor phrase could be analyzed

¹⁵www.r-project.com

as an indefinite possessive pronoun rather than a productive use of SPOSS such as in example (3.27). I also excluded examples with the possessor phrase *Gottes* as in example (3.27), which exhibits idiosyncratic phonology and should rather be considered a calque of the German genitive; cf. section 2.4.

(3.27) *Waems Saen es hee?*
 whose son is he
 “Whose son is he?”

(3.28) *Gottes Gericht is dor veel strenger.*
 God-M.SG.GEN judgment is there much severe
 “God’s judgment is much more severe.”

The first morphosyntactic variable I used in the annotation was the *type of determiner of the possessor phrase*. I distinguished between the seven levels given in table (3.29).

(3.29) Types of determiners

Code	Description	Example
DEM	demonstrative	dis Maun sien Bloot (this man’s blood)
DART	definite article	een Deel vun dat Riek (a part of the empire)
POSS	possessor phrase	uns Oma eer lütt Huus (our grandma’s little house)
PRON	personal pronoun	De Ollen vun uns (our parents)
NULL	no determiner	Vadders Hoot (father’s hat)
IPRN	indefinite pronoun or quantifier or cardinal number	het initiatief van twei schrievers (the initiative of two writers) t Enn vun jeeden Schooljohr (the end of every school year)
IART	indefinite article	en Maun sien Wele (a man’s will)

The criterion for the coding of this factor was whether there was any element in the D position of the possessor phrase and if there was one what kind of element it

was. The first level DEM was used for demonstratives of the form *düsse(n)* / *düt* (this) that occurred with or without a following head noun. Strictly speaking the forms of the definite articles *de* and *dat* can also be used as demonstratives when they are stressed. However, because it is not easy to distinguish their demonstrative use from their ordinary use as definite articles in written text, I decided to only code them as DEM when they were used without a following head noun as in example (3.30) and as DART otherwise.

- (3.30) *eena fonn **dee** dee bie Jesus weare*
 one of those who with Jesus were
 “one of those who were with Jesus”

The *type of determiner* was coded as POSS if the D position of the possessor phrase was either filled with a possessive pronoun or the possessor phrase was itself a complex prenominal possessive construction as in example (3.31).

- (3.31) *den Anblick vun [[**jümehr Grootmodder un Onkel**] ehr Bloot]*
 the sight of their grandmother and uncle their blood
 “the sight of their grandmother’s and their uncle’s blood”

The level PRON was used for personal pronouns which I also consider as determiners, cf. section 2.1, i.e. if the possessor phrase contained a personal pronoun (possibly followed by a head noun) it was coded as PRON. NULL was used if the possessor phrase did not contain any determiner at all. Some examples of nouns that often occur without a determiner are proper names, mass nouns, and indefinite plural nouns. I have lumped together indefinite determiners and pronouns such as *zukse* (such) or *eena* (one), quantifiers such as *jedeen* (every one), and cardinal numbers such as *dree* (three) or *170* into the category IPRN because these cases were relatively rare and it would not have made much sense to posit individual categories for them.

Last but not least, the indefinite article *een* when used with a following head noun was tagged with IART. If it was used without a following head noun I classified it as IPRN.

The same tags were also applied to the possessum phrases of prepositional possessive phrases to code for the variable *type of determiner of possessum phrase*. The possessum phrases of the prenominal constructions always contain a possessive pronoun or a linker as determiner and are therefore uninteresting with regard to this variable.

The variable *person* was used to encode the morphosyntactic feature person of the possessor and possessum phrases. Its three possible values are: FIRST, SECOND, and THIRD. I coded the honorific expression *Se* (you) that is originally derived from a third person pronoun as SECOND because it is used to address an interlocutor in the same way as the ordinary second person pronouns.

For the factors *length* of possessum and possessor phrases I annotated the examples in my corpus in the way exemplified in (3.32). I then automatically counted the number of orthographic words in the possessor and possessum phrase of all examples in my subsamples. I did not count the possessive marking itself, i.e. the possessive linker in the possessive linker construction, the =s in the s-possessive construction, and the preposition in the prepositional possessive construction. I also did not count the possessive pronoun in the possessive pronoun construction because it functions as the possessor phrase and the possessive marking at the same time.

(3.32) <de fiets> van [mien vrouw]
 the bike of my wife
 “the bike of my wife”

The length of the possessor phrase in the possessive pronoun construction is constant anyway and it does not make a great difference whether I count it as 0 or 1.

If either the possessor phrase or the possessum phrase was further modified with material that appeared discontinuously I also marked the length of these further modifiers and added it to the original length of the continuous part of the phrase in question to yield the factor *length with discontinuous material*; cf. example (3.33).

- (3.33) [*en jewesse Minason*] *sien* <*Hus*>, [*!en elra Jinja dee fonn*
 a certain Minason his house an elderly disciple who from
Tsiepern wea]
 Cyprus was
 “the house of a certain Minason, an elderly disciple who came from Cyprus”

Length of possessor phrase: 3+7, Length of possessum phrase: 1

- (3.34) <*de Exploschoon*> *vun* [*'n Autobomb*] <*!in Bagdad*>
 the explosion of a car bomb in Bagdad
 “the explosion of a car bomb in Bagdad”

Length of possessor phrase: 2, Length of possessum phrase: 2+2

- (3.35) <*!hil*> *eer* <*weazn*>
 all her being
 “all her being”

Length of possessor phrase: 0, Length of possessum phrase: 1+1

In this example the length of the possessor phrase *en jewesse Minason* is 3 words. I added the length of the apposition *en elra Jinja dee fonn Tsiepern wea* (7 words) to yield the value of 10 words for the factor *length of possessor phrase with discontinuous material* for this example. I counted as discontinuous material extraposed relative clauses and prepositional phrases, further postnominal modifiers of the possessum phrase even if they followed a prepositional possessor phrase as in example (3.34), appositions such as the one in example (3.33), and certain quantifiers such as *all* (all) and *heel* (whole) which sometimes precede a prenominal possessor phrase.

The semantic factor *possessive relation* was coded according to table (3.23) in section 3.3. I have used the abbreviations for the different semantic relations given in table (3.36).

(3.36) Possessive relation

Code	Description	Code	Description
KIN	social relation	OWN	ownership
PWH	part/whole of physical objects	BODY	body part
SUBJ	agent argument	OBJ	patient argument
PART	partitive	DESC	descriptive
DEF	defining/appositive	OPOSS	other possessive relation

KIN was used not only for true kinship but also for other social relation as in *uns Meister* (our master). The difference between PWH and PART that I make is that in a PWH relation the possessum is one specific part of the possessor, cf. example (3.37), whereas in a PART relation the possessum is one member of a set of similar entities that is denoted by the possessor phrase; cf. example (3.38).

(3.37) *den Stamm vun de Weid*
the trunk of the willow
“the trunk of the willow”

(3.38) *Een vun de Hunne*
one of the dogs
“one of the dogs”

The category OPOSS (other possessive relations) was assigned to all examples that involved possession in a wider sense but did not fit into any of the categories of the taxonomy. Many of the instances in this category involve more “abstract” possession in that the relation between the possessor and the possessum can involve any conceivable pragmatic relation. The possessor could e.g. be the author of the possessum as in example (3.39) or the possessum could be a state the possessor is in as in example (3.40), etc.

(3.39) *Werner Eichelberg sien dollet Wöörbook*
 Werner Eichelberg his great dictionary
 “Werner Eichelberg’s great dictionary”

(3.40) *heur pien*
 her pain
 “her pain”

The factor *definiteness* only has two values: DEF for definite expressions and INDEF for indefinite expressions. I coded all phrases that contained a definite article or a demonstrative determiner as definite. Moreover, I annotated all personal pronouns, possessive pronouns, and proper names (this time including cases such as *mother* and *God*) as definite expressions. I also assumed that the possessum phrases in the prenominal possessive constructions were rendered definite by the presence of the possessor phrase. All other phrases were coded as indefinite unless there was reason to assume that a definite determiner had been left out as in telegraphese.

For the variable *animacy* I distinguished between HUM(an) referents, ANI(mals), ORG(anizations), and INANIM(ate) referents. ORG was used for groups of people acting as a collective that have a name such as sports teams, political parties, foundations, etc. Supernatural beings were either classified as HUM if they had humanoid form or in general behaved like humans e.g. in using language or as ANI otherwise.

For the factor *concreteness* I distinguished between two categories: CONC(crete) and ABSTR(act). All referents that can be perceived by the five senses and preferable touched, manipulated, or physically visited were coded as CONC. I included locations of all sizes, even e.g. *Södamerika* (South America), in the category CONC. I also coded supernatural beings as CONC because they “can” be perceived by the five senses and people interact with them. Abstract concepts and ideas were coded as ABSTR. This included times and events which were coded as ABSTR in principle.

3.6 Range of use of the four constructions

In this section, I will discuss the range of use of the four possessive constructions and the prototypical characteristics of their possessor and possessum phrases by examining the subsamples for the four possessive constructions and the differences that might exist between them. Because of the method of sampling that I used I will mostly look at the distribution of the levels of the different factors within the individual constructions instead of taking a choice based viewpoint with the type of construction as dependent variable. I will thus concentrate more on the typical uses of the four constructions than on modeling the actual decision of the speaker in choosing one of them above the others.

3.6.1 Morphosyntactic factors

The first factor that I will discuss is the *type of determiner of the possessor phrase*. Table (3.41) gives the number of different determiners used in the possessor phrase of the possessive linker construction, the s-possessive, and the prepositional possessive construction. This factor is not interesting for the possessive pronoun construction because the possessor phrase in this construction is a determiner itself and not a full DP and can therefore never appear with another determiner.

(3.41) Type of determiner of the possessor phrase

Type	LK	SPOSS	PPC
DEM	1 (0.2 %)	0 (0 %)	14 (2.8 %)
DART	142 (28.4 %)	4 (1.75 %)	254 (50.8 %)
POSS	40 (8 %)	8 (3.49 %)	46 (9.2 %)
PRON	9 (1.8 %)	0 (0 %)	12 (2.4 %)
NULL	297 (59.4 %)	216 (94.32 %)	139 (27.8 %)
IPRN	1 (0.2 %)	0 (0 %)	19 (3.8 %)
IART	10 (2 %)	1 (0.44 %)	16 (3.2 %)

As already discussed in chapter 2.4 the s-possessive almost exclusively occurs with possessor phrases that do not themselves contain a determiner (94.32 %). Nevertheless some examples with a determiner in the possessor phrase did occur in the subsample. Most of them involved possessive pronouns. The majority of the LK possessor phrases (59.4 %) also did not contain any determiner. Nine of the LK instances involved the pronominal possessor phrase *Se*, the honorific second person pronoun. In contrast to the s-possessive, the possessive linker construction does frequently occur with all sorts of determiners although there were significantly fewer instances¹⁶ with a demonstrative or an indefinite pronoun compared to the prepositional possessive construction. The prepositional possessive construction occurred significantly more often with a possessor that contained a definite article (50.8 %) than the other two constructions.¹⁷ There were also more instances of the PPC that contained rarer determiners such as DEM and IPRN. Figure (3.42) gives an overview of the distribution of different types of determiners in the possessor phrase of the four constructions.

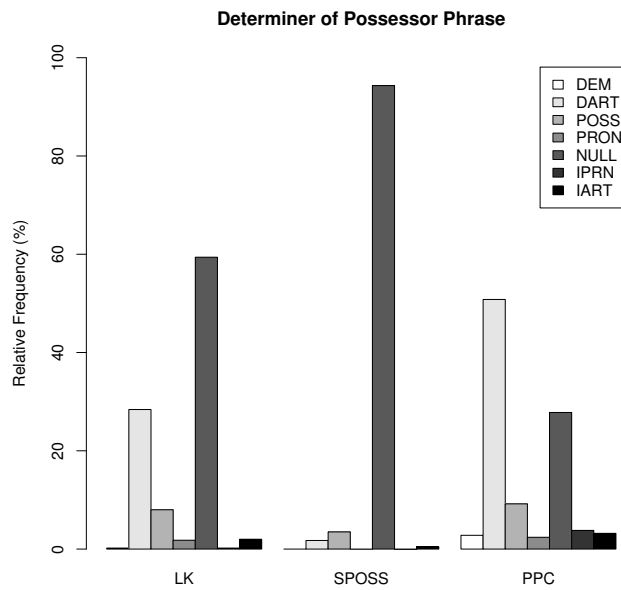
The variable *type of determiner of the possessum phrase* only varies for the prepositional possessive construction. Table (3.43) provides the frequencies of occurrence of different types of determiners in the possessum phrase of the prepositional possessive construction. The most frequent determiner is again the definite article (58.8 %). However, the possessum phrases of the PPC examples contain significantly more clearly indefinite determiners than the possessor phrases.¹⁸ 23.4 % of all determiners occurring in the possessum phrase of PPC were clearly indefinite. However, not many examples contained demonstratives or other determiners. This already shows that the possibility of choosing a determiner other than the definite article is clearly a factor that favors the use of the prepositional possessive construction but it is also

¹⁶ $\chi^2 = 9.7462$, $df = 1$, $p = 0.001797$ for DEM and $\chi^2 = 14.7449$, $df = 1$, $p = 0.0001231$ for IPRN.

¹⁷ $\chi^2 >= 51.5126$, $df = 1$, $p = < 7.114e-13$.

¹⁸ $\chi^2 = 27.2067$, $df = 1$, $p = 1.828e-07$ for IPRN and $\chi^2 = 18.4927$, $df = 1$, $p = 1.706e-05$ for IART.

(3.42) Type of determiner of the possessor phrase



clearly not the one and only factor because the majority of PPC instances occurred with the definite article as determiner of the possessum phrase.

(3.43) Type of determiner of the possessum phrase (PPC)

Type	Count	Percent	Type	Count	Percent
DEM	5	1.0 %	DART	294	58.8 %
POSS	5	1.0 %	PRON	1	0.2 %
NULL	78	15.6 %	IPRN	66	13.2 %
IART	51	10.2 %			

The factor *person of possessor phrase* did not yield any unexpected results. The only construction that is regularly used with first or second person possessor phrases is the possessive pronoun construction with 56 % non-third person possessor phrases in my subsample. The seven examples of LK with non-third person possessor phrases all involve the honorific pronoun *Se* (you) which although used to address an interlocutor is derived originally from the third person plural pronoun.

(3.44) Person of the possessor phrase

Type	POSSP	LK	SPOSS	PPC
FIRST	168 (42 %)	0 (0 %)	0 (0 %)	3 (0.6 %)
SECOND	56 (14 %)	7 (1.4 %)	0 (0 %)	5 (1 %)
THIRD	176 (44 %)	493 (98.6 %)	229 (100 %)	492 (98.4 %)

It seems that the prepositional possessive construction is not used very frequently with non-third person possessor phrases either (only 1.6 %). In sum, one major use of the pronominal possessive construction is with non-third person possessor phrases while the percentage of non-third person possessor phrases is minuscule for the other constructions. The only non-third person possessum phrase in all subsamples is the one in the PPC given in example (3.45).

(3.45) *Du verflixte Düvel vun Kater*
 you damn devil of tomcat
 “you damn devil of a tomcat”

The last morphosyntactic factors that I want to discuss concern the *length* of the possessor and the possessum phrase. Table (3.46) gives the average length of the possessor phrase for the possessive linker construction, the s-possessive, and the prepositional possessive construction. The length of the possessor phrase of the possessive pronoun construction does not vary and is always 0 if we do not count the possessive pronoun because it is also the possessive marker or always 1 if we count it.

(3.46) Average length of the possessor phrase

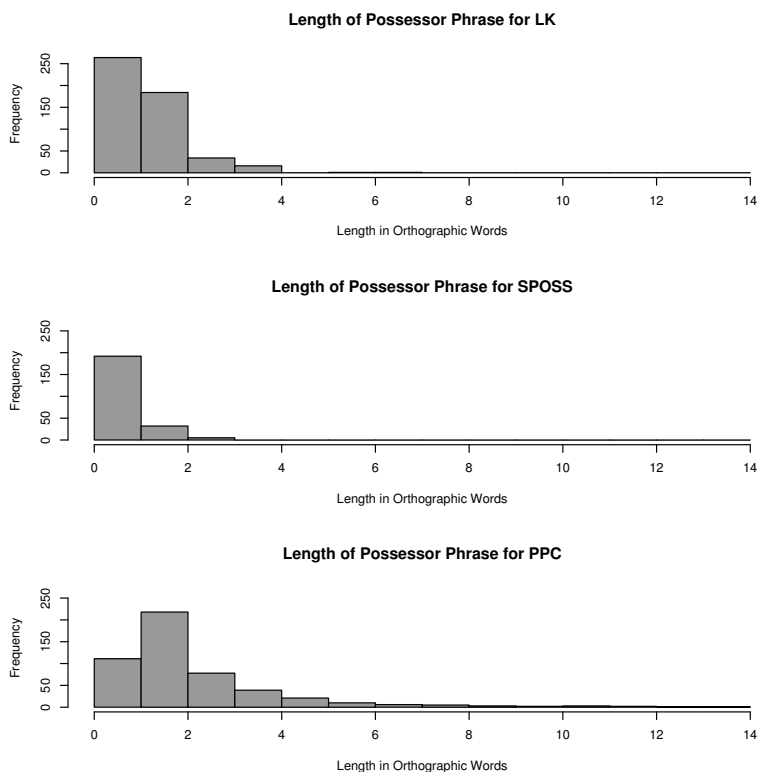
Construction	Mean	SD	Mean (Discont.)	SD (Discont.)
LK	1.622	0.815	1.856	2.074
SPOSS	1.183	0.441	1.183	0.441
PPC	2.628	1.906	2.728	2.079

The average length of the possessor phrase differs significantly between all four constructions.¹⁹ The possessive pronoun construction of course has the shortest possessor phrases on average. The next shortest are those of the s-possessive construction with an average length of only 1.18 words which again confirms that this construction is only used with very simple, usually one word possessor phrases. The average length of the possessor phrase of the LK construction is 1.622 words and thus longer than that of SPOSS but still relatively short. In contrast to the prenominal possessive constructions, the prepositional possessive construction has an average length of 2.628 words and is thus used with possessor phrases that are more than one word longer on average than those of the possessive linker construction. This difference between the prenominal and the postnominal possessive constructions is also clearly shown in the histograms in figure (3.47).

The distribution of the length of the possessor phrase of the LK construction has a longer tail than that of the SPOSS construction. LK occasionally occurs with slightly longer possessor phrases. The longest possessor phrase in a LK phrase that occurred in my sample was 7 words long, whereas the longest possessor phrase in an SPOSS phrase was only 3 words long. Finally, the maximal length of a possessor phrase in a PPC was 14 words, cf. example (3.48).

¹⁹POSSP vs. LK: $t = -44.4945$, $df = 499$, $p = < 2.2e-16$; POSSP vs. SPOSS: $t = -40.6286$, $df = 228$, $p = < 2.2e-16$; POSSP vs. PPC: $t = -30.8308$, $df = 499$, $p = < 2.2e-16$; LK vs. SPOSS: $t = 9.3995$, $df = 707.982$, $p = < 2.2e-16$; LK vs. PPC: $t = -10.8514$, $df = 675.623$, $p = < 2.2e-16$; SPOSS vs. PPC: $t = -10.8514$, $df = 675.623$, $p = < 2.2e-16$.

(3.47) Length of the possessor phrase



- (3.48) *de Spraak vun den lütten Mann vun den Buern up'n Lannen*
 the language of the little man of the farmer in=the country
oder de Deensten in de Stadt
 or the servants in the city
 “the language of the common man, the farmer in the country side or the
 servants in the city”

Adding the length of discontinuous material did not change the general picture of the length differences between the four constructions.

Determining whether the four constructions differ in the length of the possessum phrase is not as straightforward because the prepositional possessive construction will systematically contain one word more. This is the case because the possessum

phrase of the prenominal possessive constructions can never contain a determiner other than the possessive pronoun or linker which serves as possessive marker, whereas the possessum phrase of the prepositional possessive construction has to take its own determiner in addition to the prepositional possessive marker in many cases. The average lengths of the possessum phrases of the four constructions are given in table (3.49). A pairwise comparison shows that all three prenominal constructions do not differ from each other in the average length of their possessum phrase.²⁰ The plain average length of the possessum phrase of the prepositional construction is significantly longer than those of the prenominal constructions.²¹ However, the comparison is not fair for the reasons outlined above. I therefore corrected the length of the possessum phrase of PPC in two different ways (called *corrected1* and *corrected2* in the table). The easiest possible way to correct the bias is by simply subtracting 1 (the length of a determiner) from the length of all possessum phrases of PPC. This results in an average length of the possessum phrase that is significantly shorter than those of the prenominal constructions.²² On second thought however this method is something of an overkill because it assumes that all possessum phrases in the prepositional construction do contain a determiner. I therefore tried a second, more informed method that only subtracted 1 from those possessum phrases of the PPC construction that actually did contain a determiner.

²⁰POSSP vs. LK: $t = -0.8516$, $df = 611.113$, $p = 0.3948$; POSSP vs. SPOSS: $t = 0.3774$, $df = 510.042$, $p = 0.706$; LK vs. SPOSS: $t = 1.0154$, $df = 650.477$, $p = 0.3103$.

²¹POSSP vs. PPC (without correction): $t = -10.3188$, $df = 896.876$, $p = < 2.2e-16$; LK vs. PPC (without correction): $t = -3.2693$, $df = 555.289$, $p = 0.001145$; SPOSS vs. PPC (without correction): $t = -9.1271$, $df = 374.666$, $p = < 2.2e-16$.

²²POSSP vs. PPC (corrected1): $t = 5.4592$, $df = 896.876$, $p = 6.193e-08$; LK vs. PPC (corrected1): $t = 3.0665$, $df = 555.289$, $p = 0.002271$; SPOSS vs. PPC (corrected1): $t = 4.1863$, $df = 374.666$, $p = 3.536e-05$.

(3.49) Average length of the possessum phrase

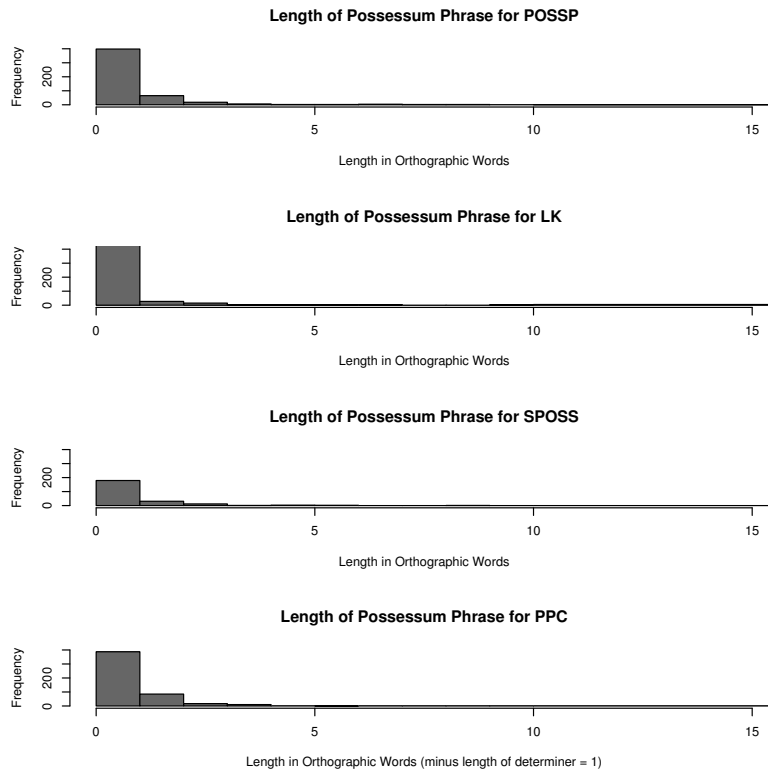
Construction	Mean	SD	Mean (Discont.)	SD (Discont.)
POSSP	1.394	1.158	1.466	1.321
LK	1.532	3.433	1.554	3.442
PPC	2.048	0.817	2.38	1.898
PPC Corrected1	1.048	0.817	1.38	1.898
PPC Corrected2	1.204	0.774	1.536	1.875
SPOSS	1.362	0.993	1.362	0.993

The resulting average length does not differ very much from those of the other constructions.²³ It thus seems that if one corrects for the principled bias against the prepositional possessive construction there is only a small difference in the average length of the possessum phrase of the four constructions. Moreover, the histograms in figure (3.50) calculated with correction method 2 for PPC show that all constructions have similar distributions of the lengths of their possessum phrases.

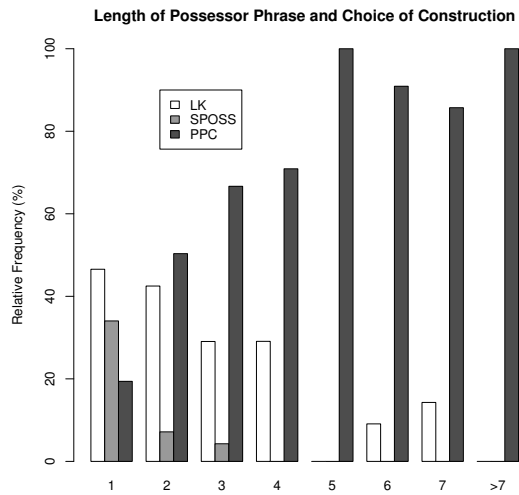
The picture that emerges is thus that the profiles of the four possessive constructions are quite different for the average length of the possessor phrase but do not differ very much for the average lengths of the possessum phrase. Moreover, my hypotheses from section 3.4 are confirmed in that the postnominal possessor phrases are on average longer than the prenominal ones. The possessum phrases of PPC are however only slightly shorter on average than those of the prenominal constructions. I therefore suspect that the length of the possessor phrase has a much greater influence on the choice of construction than the length of the possessum phrase. This is confirmed by plotting the choice of construction depending on the length of the possessor phrase; cf. figure (3.51). A similar plot of the choice of construction with the length of the possessum phrase as predictor variable does not reveal any clear tendencies; cf. figure (3.52).

²³POSSP vs. PPC (corrected2): $t = 3.0495$, $df = 870.796$, $p = 0.002362$; LK vs. PPC (corrected2): $t = 2.0838$, $df = 549.629$, $p = 0.03764$; SPOSS vs. LK (corrected2): $t = 2.1351$, $df = 359.865$, $p = 0.03343$.

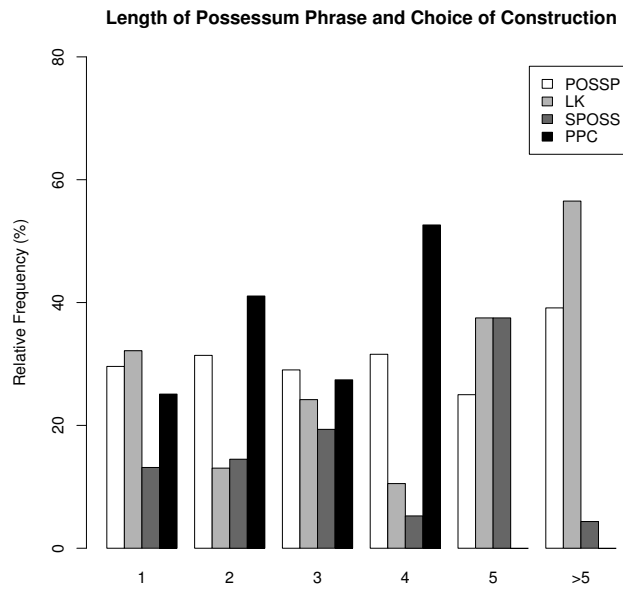
(3.50) Length of the possessum phrase



(3.51) Choice of construction depending on the length of the possessor phrase



(3.52) Choice of construction depending on the length of the possessum phrase



However, in contrast to the prenominal possessive constructions, the postnominal prepositional possessive construction did not occur with possessum phrases of length 5 or longer. The possibility that the length of the possessum phrase has some influence on the choice of construction thus cannot be excluded.

3.6.2 Semantic factors

Table (3.53) gives an overview of the different possessive relations that the four possessive constructions can express. It shows that there are clear differences in the relative frequencies with which the four constructions are used to encode different possessive relations but also that the three prenominal constructions usually pattern together and differ from the postnominal prepositional possessive construction.²⁴

(3.53) Possessive relation

Type	POSSP	LK	SPOSS	PPC
OPOSS	158 (31.6 %)	211 (42.2 %)	88 (38.4 %)	238 (47.6 %)
KIN	142 (28.4 %)	107 (21.4 %)	62 (27.1 %)	14 (2.8 %)
OWN	97 (19.4 %)	91 (18.2 %)	48 (21 %)	13 (2.6 %)
PWH	4 (0.8 %)	0 (0 %)	4 (1.7 %)	67 (13.4 %)
BODY	65 (13 %)	62 (12.4 %)	18 (7.9 %)	12 (2.4 %)
SUBJ	31 (6.2 %)	29 (5.8 %)	8 (3.5 %)	32 (6.4 %)
OBJ	3 (0.6 %)	0 (0 %)	1 (0.4 %)	39 (7.8 %)
PART	0 (0 %)	0 (0 %)	0 (0 %)	67 (13.4 %)
DESC	0 (0 %)	0 (0 %)	0 (0 %)	6 (1.2 %)
DEF	0 (0 %)	0 (0 %)	0 (0 %)	12 (2.4 %)

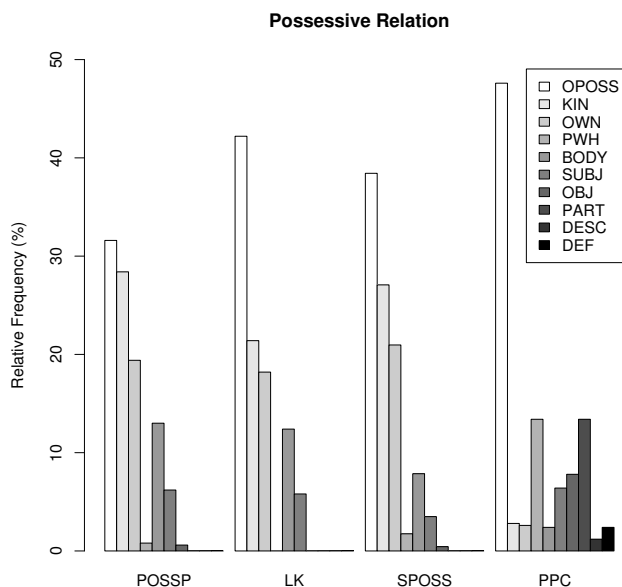
All four constructions were most often used to express possessive relations that

²⁴A comparison of the columns of the four constructions in the table yields the following χ^2 values: POSSP vs. LK (without PART, DESC, and DEF): $\chi^2 = 19.8612$, $df = 6$, $p = 0.002931$; POSSP vs. SPOSS (without PART, DESC, and DEF): $\chi^2 = 9.615$, $df = 6$, $p = 0.1418$; POSSP vs. PPC: $\chi^2 = 393.5877$, $df = 9$, $p = < 2.2e-16$; LK vs. SPOSS (without PART, DESC, and DEF): $\chi^2 = 18.8672$, $df = 6$, $p = 0.004394$; LK vs. PPC: $\chi^2 = 356.5343$, $df = 9$, $p = < 2.2e-16$; SPOSS vs. PPC: $\chi^2 = 245.1538$, $df = 9$, $p = < 2.2e-16$.

did not fit into any category of the taxonomy I used.²⁵ This shows that all of the four possessive constructions are indeed able to convey a great range of different meanings and also that the taxonomy I used does not cover a lot of the different possible “possessive” relations.

The prepositional possessive construction seems to have the greatest semantic versatility in that it can be used to express all the meanings that the three prenominal constructions can denote. The reverse is not true. The three prenominal possessive constructions are more restricted in that they do not seem to be used to express partitive, descriptive, and defining/appositive relations. This is parallel to the situation in English where these same three relations are also only expressible with the postnominal *of*-possessive construction (Rosenbach 2002, p. 29).

(3.54) Possessive relations



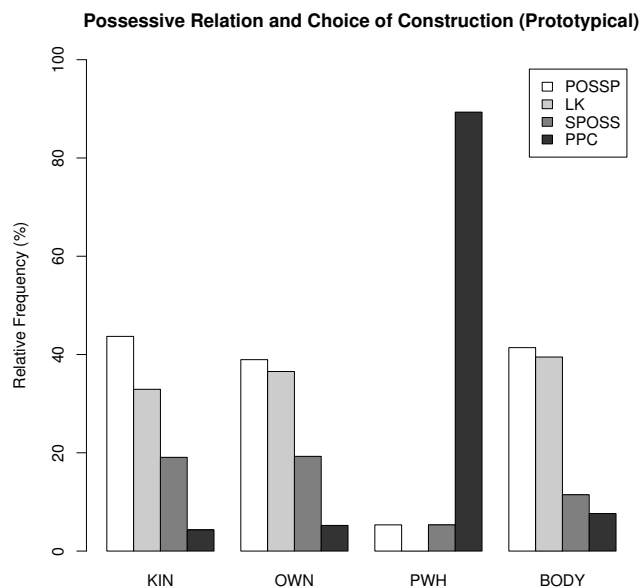
²⁵The possessive pronoun construction was used significantly less often with an OPOSS relation than the LK and PPC constructions. POSSP vs. LK: $\chi^2 = 11.6132$, $df = 1$, $p = 0.0006549$; POSSP vs. PPC: $\chi^2 = 26.0929$, $df = 1$, $p = 3.254e-07$.

A closer look shows that there are only two uses in which the relative frequencies of the prenominal constructions did not differ much from those of the prepositional possessive construction, namely OPOSS and SUBJ. The possessor phrase in all four constructions can be used to encode the agent argument of a deverbal noun. For all other possessive relations the relative frequencies in the prenominal possessive constructions did not differ significantly from each other but they all differed significantly from the relative frequencies of the prepositional possessive constructions;²⁶ cf. also figure (3.54). A high percentage of the instances of the three prenominal possessive constructions express one of the prototypical possessive relations KIN, OWN, and BODY: 60.8 % of the possessive pronoun phrases, 52 % of the possessive linker phrases, and 56 % of the s-possessive phrases. The percentage of prepositional possessive phrases used to encode a prototypical possessive relation is much lower with 21.2 %. However, it is conspicuous that PPC is used more frequently to express part/whole relations than the other constructions. This points to an animacy difference rather than a simple difference between prototypical vs. non-prototypical possessive relations because only the part/whole relation involves inanimate possessors, whereas the other three prototypical relations usually involve human possessors; cf. also figure (3.55) for a plot of the choice of construction depending on the prototypical possessive relation to be expressed.

The prediction that PPC is used more often to express non-prototypical possessive relations is confirmed but the ultimate cause may be due to the factor animacy (cf. section 3.6.3). However, the prediction that the three prenominal constructions are mostly used to convey more prototypical possessive relations seems to be true although a considerable percentage of all instances of the prenominal constructions are employed to denote OPOSS relations. It does not seem to be the case however that the prenominal possessive construction is more neutral in that it can be used in

²⁶See appendix B for a detailed statistical comparison of the proportions.

(3.55) Choice of construction depending on prototypical possessive relation



more semantic contexts than the other two prenominal constructions. At least this cannot be inferred from the relative frequencies in table (3.53).

The factor *definiteness of the possessor phrase* only makes sense for the LK, SPOSS, and PPC constructions. The pronominal possessive construction always occurs with a definite possessor phrase by definition (unless one considers forms such as *annermanns* discussed in chapter 2.4 as indefinite possessive pronouns).²⁷ The relative frequency of definite and indefinite possessor phrases of the other three constructions is given in table (3.56).²⁸

²⁷However, because of their uncertain status I have not included such indefinite possessive pronouns as *annermanns* in this corpus study.

²⁸The frequencies for LK and SPOSS do not differ significantly from each other: $\chi^2 = 3.0174$, $df = 1$, $p = 0.08237$, but they are significantly different from those of the PPC construction: LK vs. PPC: $\chi^2 = 35.9649$, $df = 1$, $p = 2.009e-09$; SPOSS vs. LK: $\chi^2 = 30.0437$, $df = 1$, $p = 4.224e-08$.

(3.56) Definiteness of the possessor phrase

Type	LK	SPOSS	PPC
DEF	483 (96.6 %)	227 (99.13 %)	428 (85.6 %)
INDEF	17 (3.4 %)	2 (0.87 %)	72 (14.4 %)

As predicted most possessor phrases of all possessive constructions are definite which is in line with their use as reference points to anchor the possessum in the discourse as argued by Langacker (1999) and Taylor (1996). The prediction that the possessor phrases of the prepositional possessive construction would be indefinite more often is also confirmed.

The possessum phrases of the three prenominal possessive constructions are rendered definite by the preceding possessor phrase which acts as a “complex determiner”. Of the five hundred instances of the prepositional possessive construction 339 (67.8 %) contain definite possessum phrases and 161 (32.2 %) contain indefinite possessum phrases. Of all indefinite possessum phrases used with the prepositional possessive construction 50 (31.06 %) are headed by the indefinite article, 65 (40.37 %) are used with indefinite pronouns, quantifiers, or cardinal numerals, and 46 (28.57 %) are not preceded by any determiner. The counts for the factor *definiteness of the possessum phrase* thus clearly show that one major use of PPC is with indefinite possessum phrases in general and specifically also with certain quantifiers, numerals, and indefinite pronouns which could not occur in the prenominal possessive constructions where the possessum phrases are not DPs but NPs. However, a majority of possessum phrases of the PPC were still definite and definiteness is therefore not the only factor which favors the use of the prepositional possessive construction.

3.6.3 Animacy and concreteness

There were already some indications in the preceding section that there is a difference in the typical animacy level of the possessor phrases between the prenominal possessive constructions and the prepositional possessive construction. This is confirmed by the data on animacy in table (3.57).

(3.57) Animacy of the possessor

Type	POSSP	LK	SPOSS	PPC
HUM	453 (90.6 %)	462 (92.4 %)	194 (84.72 %)	130 (26 %)
ANI	19 (3.8 %)	10 (2.0 %)	3 (1.3 %)	6 (1.2 %)
ORG	15 (3 %)	12 (2.4 %)	19 (8.3 %)	72 (14.4 %)
INANIM	13 (2.6 %)	16 (3.2 %)	13 (5.68 %)	292 (58.4 %)

The possessive pronoun and linker constructions do not differ from each other with regards to the animacy distribution of their possessors.²⁹ Moreover, they behave exactly as predicted in strongly preferring animate possessors: 94.4 % of both constructions involve possessors that are HUMAN or ANI. The s-possessive construction is a little less restrictive and occurred more often with inanimate possessors than the possessive pronoun and linker constructions.³⁰ This is also in line with the predictions I made in section (3.4) where I suggested that the s-possessive is restricted to proper names in general rather than to animate possessors.

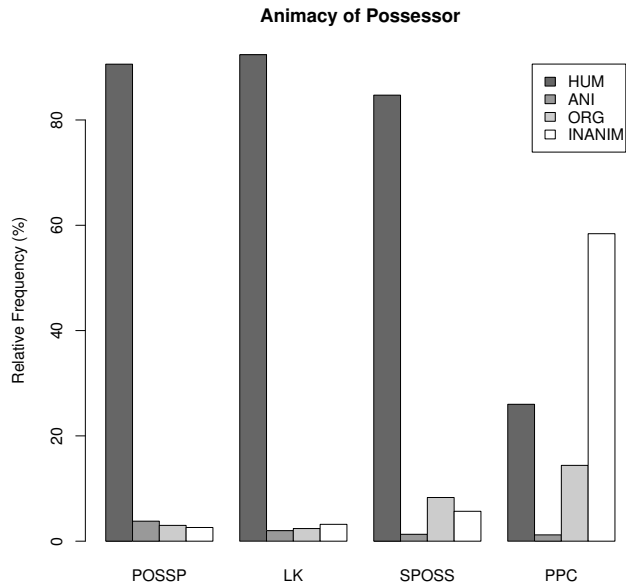
The prepositional possessive construction has a totally different profile with regards to the animacy of the possessor.³¹ The majority of all possessors used with the prepositional possessive construction are inanimate (58.4 %). It is also used more often with possessors that denote organizations (14.4 %) than the other constructions.

²⁹A comparison of POSSP with the LK column resulted in the following χ^2 -value: $\chi^2 = 3.5253$, $df = 3$, $p = 0.3175$.

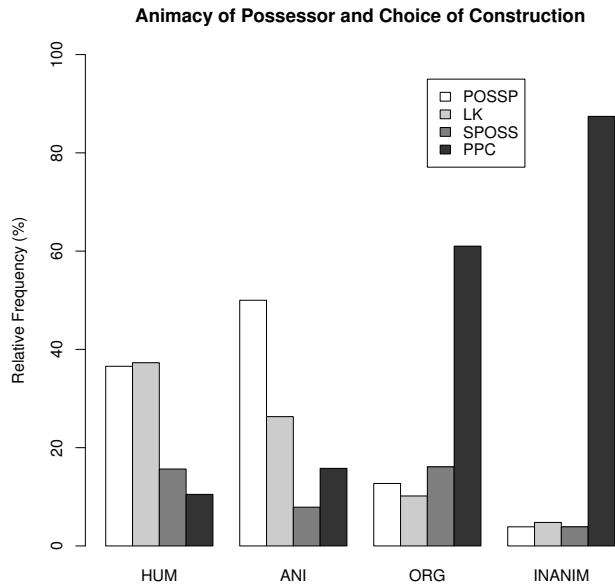
³⁰A comparison by columns yielded: POSSP vs. SPOSS: $\chi^2 = 17.4574$, $df = 3$, $p = 0.000569$; LK vs. SPOSS: $\chi^2 = 16.7159$, $df = 3$, $p = 0.0008085$.

³¹POSSP vs. PPC: $\chi^2 = 478.2732$, $df = 3$, $p = < 2.2e-16$; LK vs. PPC: $\chi^2 = 477.371$, $df = 3$, $p = < 2.2e-16$; SPOSS vs. PPC: $\chi^2 = 230.8918$, $df = 3$, $p = < 2.2e-16$.

(3.58) Animacy of the possessor



(3.59) Choice of construction depending on the animacy of the possessor



The influence of the factor *animacy of the possessor* on the choice of construction can be also be seen in figure (3.59). The relative frequency of LK decreases monotonically with decreasing animacy, whereas the relative frequency of PPC exhibits the opposite tendency.

In contrast to the animacy of the possessor, the distribution of the *animacy of the possessum* does not differ as much between the four construction although it still reaches statistical significance.³²

(3.60) Animacy of the possessum

Type	POSSP	LK	SPOSS	PPC
HUM	142 (28.4 %)	105 (21 %)	61 (26.64 %)	89 (17.8 %)
ANI	11 (2.2 %)	20 (4 %)	7 (3.06 %)	5 (1 %)
ORG	8 (1.6 %)	12 (2.4 %)	2 (0.87 %)	15 (3 %)
INANIM	339 (67.8 %)	363 (72.6 %)	159 (69.43 %)	391 (78.2 %)

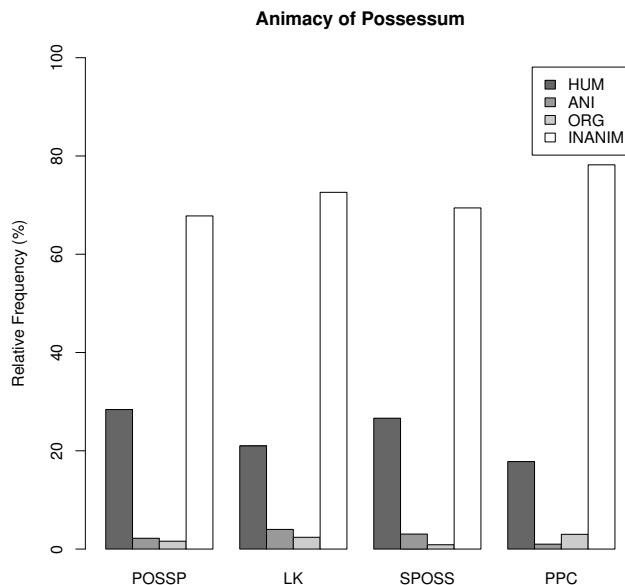
The bar diagram in figure (3.61) also does not reveal any strong tendencies. However, the prepositional possessive construction seems to occur slightly more often with inanimate possessums and less often with human possessums than the prenominal constructions.

The same general picture emerges for the factors *concreteness of the possessor* and *concreteness of the possessum*. The possessive constructions behave as predicted with regards to the concreteness of the possessor; cf. table (3.62). The three prenominal possessive constructions again do not differ from each other.³³

³²A comparison of the columns of the different constructions reveals that only the pairs POSSP vs. PPC ($\chi^2 = 20.2447$, $df = 3$, $p = 0.0001510$), LK vs. PPC ($\chi^2 = 11.6927$, $df = 3$, $p = 0.008513$), and SPOSS vs. PPC ($\chi^2 = 14.6447$, $df = 3$, $p = 0.002147$), i.e. the prenominal constructions vs. PPC, exhibit significant differences.

³³POSSP vs. LK: $\chi^2 = 5.9077$, $df = 1$, $p = 0.01507$; POSSP vs. SPOSS: $\chi^2 = 0.0606$, $df = 1$, $p = 0.8056$; LK vs. SPOSS: $\chi^2 = 1.5473$, $df = 1$, $p = 0.2135$.

(3.61) Animacy of the possessum



A significantly higher percentage of the possessors occurring with PPC are abstract (28 %) compared to the percentage of abstract possessors of the three prenominal constructions (lower than 4 %); cf. figure (3.63).³⁴

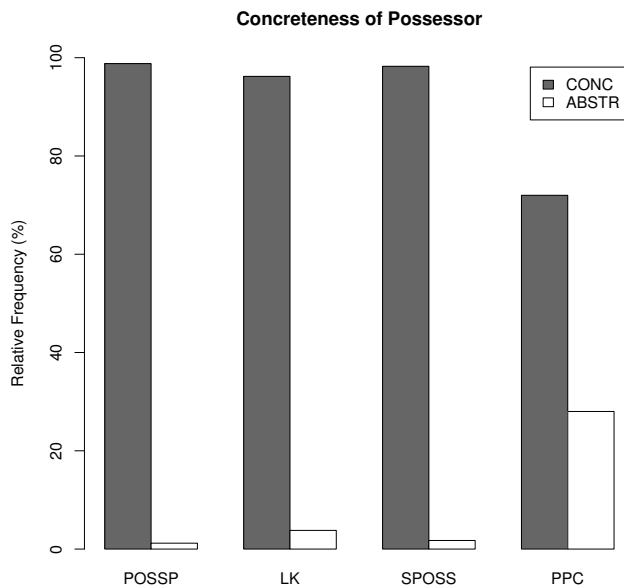
(3.62) Concreteness of the possessor

Type	POSSP	LK	SPOSS	PPC
CONC	494 (98.8 %)	481 (96.2 %)	225 (98.25 %)	360 (72 %)
ABSTR	6 (1.2 %)	19 (3.8 %)	4 (1.75 %)	140 (28 %)

The effect of the concreteness of the possessor on the choice of possessive construction can be seen in figure (3.64). More than 80 % of all abstract possessors occur

³⁴POSSP vs. PPC: $\chi^2 = 141.8706$, $df = 1$, $p = < 2.2e-16$; LK vs. PPC: $\chi^2 = 107.6885$, $df = 1$, $p = < 2.2e-16$; SPOSS vs. PPC: $\chi^2 = 66.6477$, $df = 1$, $p = 3.246e-16$.

(3.63) Concreteness of the possessor

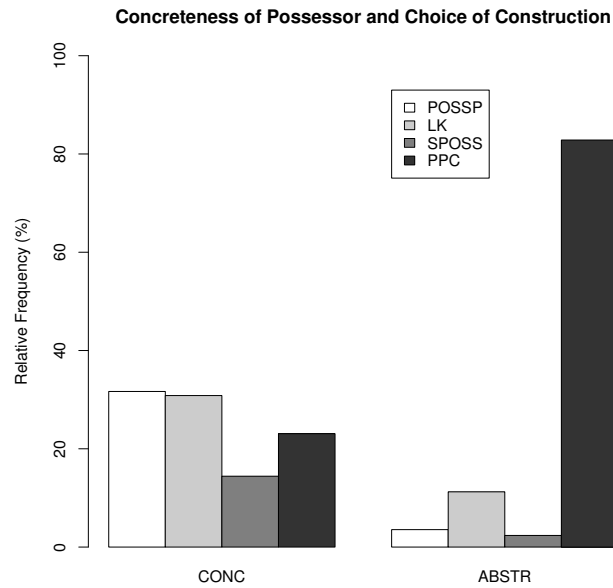


with the prepositional construction. But while most abstract possessors are realized as prepositional possessive constructions in my sample, concrete possessors are not restricted to the prenominal constructions but occur in all four constructions.

The distribution of the factor *concreteness of the possessum* does differ between the four constructions. The possessive linker construction and the prepositional possessive construction occurred significantly more frequently with abstract possessums than the other two constructions.³⁵ It is not clear to me why this should be the case. But it is probably connected to the fact that the possessive linker construction and the prepositional possessive construction were used more often to express various

³⁵POSSP vs. LK: $\chi^2 = 18.768$, $df = 1$, $p = 1.476e-05$; POSSP vs. SPOSS: $\chi^2 = 0.0777$, $df = 1$, $p = 0.7805$; POSSP vs. PPC: $\chi^2 = 45.7166$, $df = 1$, $p = 1.367e-11$; LK vs. SPOSS: $\chi^2 = 13.8481$, $df = 1$, $p = 0.0001982$; LK vs. PPC: $\chi^2 = 5.7762$, $df = 1$, $p = 0.01624$; SPOSS vs. PPC: $\chi^2 = 31.7483$, $df = 1$, $p = 1.755e-08$.

(3.64) Choice of construction depending on the concreteness of the possessor



non-prototypical possessive relations in my corpus than the other two constructions;
cf. section 3.6.2.

(3.65) Concreteness of the possessum

Type	POSSP	LK	SPOSS	PPC
CONC	336 (67.2 %)	268 (53.6 %)	157 (68.56 %)	229 (45.8 %)
ABSTR	164 (32.8 %)	232 (46.4 %)	72 (31.44 %)	271 (54.2 %)

3.7 Summary

The quantitative study in the preceding section revealed that there exist significant differences between the profiles of the prenominal constructions on the one hand and the profile of the postnominal prepositional possessive construction on the other hand. This is in line with the predictions I presented in section 3.4. Most of the predictions I made concerning individual variables also hold true. The possessive phrases of the prenominal constructions generally contain more prototypical possessors according to the criteria of Langacker (1999) than the prepositional possessive construction. They occur with a high percentage of NULL determiners while being mostly definite at the same time. We can infer from this that especially the s-possessive with 94.32 % NULL determiners in the possessor phrase but 99.13 % definite possessors is almost exclusively used with proper names as possessor phrase. The possessive linker construction likewise contains a high number of proper names. The high percentage of definite possessor phrases in the prenominal constructions in comparison with the prepositional possessive construction also reveals that prenominal possessors are more given on average than postnominal possessors. The possessor phrases of the prenominal possessive constructions are also more prototypical in that they are shorter by more than one word on average than the possessor phrases of the prepositional possessive construction. Moreover, they also contain a significantly higher percentages of animate and concrete possessors than the postnominal prepositional possessive construction. Last but not least a higher percentage of the prenominal constructions is used to express one of the prototypical possessive relations that I used as identification criteria in the first part of this thesis. Whereas the prenominal constructions usually contain more prototypical possessors, i.e. definite, given, animate, and concrete referents, the prepositional possessive construction is semantically more versatile in that it can encode all possessive relations that can be expressed by

the pronominal constructions while the reverse does not hold. Parallel to the situation in English, the *van/von/vun* prepositional possessive construction is used to convey partitive, descriptive, and appositive possessive relations which do not seem to be expressible with the pronominal constructions. In my opinion, this is due to the fact that the possessum phrases used to express the PART and DESC possessive relations are usually required to be indefinite and indefinite possessum phrases are only possible with the prepositional possessive construction.

The differences between the three pronominal possessive constructions are not very great. The length of the possessor phrase of the s-possessive is shorter on average than that of the possessive linker construction. Moreover, the s-possessive is more restrictive in the types of determiners that are allowed to occur in its possessor phrase. It does indeed mostly occur with proper names that do not take a determiner, whereas the linker construction is more versatile in this respect. However, the s-possessive is less restrictive regarding the animacy of its possessor than the linker construction. It occurs with significantly more inanimate possessors. The linker construction is used more often to express less prototypical possessive relations than the s-possessive. The pronominal possessive construction sometimes patterns more closely with the possessive linker construction and sometimes more closely with the s-possessive. This corpus study unfortunately did not provide any clear evidence for deciding whether the s-possessive and the pronominal possessive construction or the possessive linker construction and the pronominal possessive construction should be considered as belonging to the same basic construction.

In general the characteristics of the possessor phrases of the four constructions differ much more and much more systematically from each other than those of the possessum phrases. I therefore predict that a study of the choice of one construction over the others would show that the properties of the possessor phrase have a much greater influence on the choice of construction than those of the possessum phrase.

Last but not least, the tendencies which could be discerned in the data are generally parallel those described in works on the English possessive alternation. Moreover, they seem to show that the prepositional possessive construction of Low Saxon is comparable to the English *of*-possessive. However, neither the Low Saxon s-possessive nor the Low Saxon possessive linker construction are directly equivalent to the English s-possessive. Whereas the Low Saxon s-possessive is too restricted in the possible complexity of its possessor phrase, the possessive linker construction cannot be used as freely with inanimate possessors as the English s-possessive (cf. Rosenbach 2002).

Rosenbach suspected that most of the differences between the English s-possessive and the *of*-possessive could ultimately be connected to the difference in linear order of possessor and possessum phrase between the two constructions (Rosenbach 2002, pp. 111ff). This view is confirmed by the similarity of the three prenominal possessive constructions in Low Saxon and the large differences between them and the postnominal prepositional possessive construction.

Chapter 4

Conclusions

I hope to have given a detailed and interesting description of the different nominal possessive constructions of modern Low Saxon. A general result of the investigations in this thesis is that the structural similarities between the pronominal possessive construction, the possessive linker construction, and the s-possessive construction also correspond to similarities in the range of use of these three constructions. The prepositional possessive construction in contrast is quite different from the other constructions both in its syntactic structure and flexibility and its range of use. I hope that this study of Low Saxon nominal syntax will not only be of interest to linguists working on this particular language but also to those interested in the typology of possessive constructions and the syntax of the noun phrase in general. Both parts of the thesis were heavily data-oriented and should therefore have provided an idea of the many interesting research questions on the structure and use of the Low Saxon possessive constructions and the syntax of noun phrases in general that are still waiting to be investigated more closely.

Appendix A

List of abbreviations used in the interlinear glosses

1	first person	NOM	nominative
2	second person	PL	plural
3	third person	POSS	s-possessive marker
–	affix	REFL	reflexive pronoun
=	clitic	RELPRN	relative pronoun
.	portmanteau morpheme	SG	singular
ACC	accusative	STR	strong declension
DAT	dative	WK	weak declension
DEICT	deictic particle		
DEM	demonstrative		
DIM	diminutive		
F	feminine		
GEN	genitive		
HON	honorific		
LK	linker		
M	masculine		
N	neuter		

Appendix B

Additional statistics

Detailed statistical tests for the factor *semantic relation*

OPOSS (other possessive relations):

POSSP vs. LK: $\chi^2 = 11.6132$, $df = 1$, $p = 0.0006549$

POSSP vs. SPOSS: $\chi^2 = 2.9769$, $df = 1$, $p = 0.08446$

POSSP vs. PPC: $\chi^2 = 26.0929$, $df = 1$, $p = 3.254e-07$

LK vs. SPOSS: $\chi^2 = 0.7744$, $df = 1$, $p = 0.3789$

LK vs. PPC: $\chi^2 = 2.7324$, $df = 1$, $p = 0.09833$

SPOSS vs. PPC: $\chi^2 = 4.9804$, $df = 1$, $p = 0.02564$

KIN (social relation):

POSSP vs. LK: $\chi^2 = 6.1819$, $df = 1$, $p = 0.01291$

POSSP vs. SPOSS: $\chi^2 = 0.0791$, $df = 1$, $p = 0.7785$

POSSP vs. PPC: $\chi^2 = 122.5012$, $df = 1$, $p = < 2.2e-16$

LK vs. SPOSS: $\chi^2 = 2.53$, $df = 1$, $p = 0.1117$

LK vs. PPC: $\chi^2 = 79.5795$, $df = 1$, $p = < 2.2e-16$

SPOSS vs. PPC: $\chi^2 = 96.5231$, $df = 1$, $p = < 2.2e-16$

OWN (ownership):

POSSP vs. LK: $\chi^2 = 0.1638$, $df = 1$, $p = 0.6857$

POSSP vs. SPOSS: $\chi^2 = 0.1521$, $df = 1$, $p = 0.6965$

POSSP vs. PPC: $\chi^2 = 70.3677$, $df = 1$, $p = < 2.2e-16$

LK vs. SPOSS: $\chi^2 = 0.6071$, $df = 1$, $p = 0.4359$

LK vs. PPC: $\chi^2 = 63.6268$, $df = 1$, $p = 1.504e-15$

SPOSS vs. PPC: $\chi^2 = 66.6827$, $df = 1$, $p = 3.189e-16$

PWH (part/whole relation of physical objects):

POSSP vs. LK: $\chi^2 = 2.259$, $df = 1$, $p = 0.1328$

POSSP vs. SPOSS: $\chi^2 = 0.5714$, $df = 1$, $p = 0.4497$

POSSP vs. PPC: $\chi^2 = 58.2786$, $df = 1$, $p = 2.275e-14$

LK vs. SPOSS: $\chi^2 = 5.8725$, $df = 1$, $p = 0.01538$

LK vs. PPC: $\chi^2 = 69.6837$, $df = 1$, $p = < 2.2e-16$

SPOSS vs. PPC: $\chi^2 = 22.9555$, $df = 1$, $p = 1.658e-06$

BODY (body part):

POSSP vs. LK: $\chi^2 = 0.0361$, $df = 1$, $p = 0.8494$

POSSP vs. SPOSS: $\chi^2 = 3.6188$, $df = 1$, $p = 0.05713$

POSSP vs. PPC: $\chi^2 = 38.0465$, $df = 1$, $p = 6.908e-10$

LK vs. SPOSS: $\chi^2 = 2.8649$, $df = 1$, $p = 0.09053$

LK vs. PPC: $\chi^2 = 35.0388$, $df = 1$, $p = 3.232e-09$

SPOSS vs. PPC: $\chi^2 = 10.5241$, $df = 1$, $p = 0.001178$

SUBJ (agent argument of a deverbal noun):

POSSP vs. LK: $\chi^2 = 0.0177$, $df = 1$, $p = 0.894$

POSSP vs. SPOSS: $\chi^2 = 1.7691$, $df = 1$, $p = 0.1835$

POSSP vs. PPC: $\chi^2 = 0$, $df = 1$, $p = 1$

LK vs. SPOSS: $\chi^2 = 1.2887$, $df = 1$, $p = 0.2563$

LK vs. PPC: $\chi^2 = 0.0698$, $df = 1$, $p = 0.7916$

SPOSS vs. PPC: $\chi^2 = 2.0289$, $df = 1$, $p = 0.1543$

OBJ (patient argument of a deverbal noun):

POSSP vs. LK: $\chi^2 = 1.3373$, $df = 1$, $p = 0.2475$

POSSP vs. SPOSS: $\chi^2 = 0$, $df = 1$, $p = 1$

POSSP vs. PPC: $\chi^2 = 30.4454$, $df = 1$, $p = 3.434e-08$

LK vs. SPOSS: $\chi^2 = 0.1606$, $df = 1$, $p = 0.6886$

LK vs. PPC: $\chi^2 = 38.5282$, $df = 1$, $p = 5.397e-10$

SPOSS vs. PPC: $\chi^2 = 15.0319$, $df = 1$, $p = 0.0001057$

PART (partitive relation):

POSSP and LK vs. PPC: $\chi^2 = 69.6837$, $df = 1$, $p = < 2.2e-16$

SPOSS vs. PPC: $\chi^2 = 32.2052$, $df = 1$, $p = 1.387e-08$

DESC (descriptive relation):

POSSP and LK vs. PPC: $\chi^2 = 4.1918$, $df = 1$, $p = 0.04062$

SPOSS vs. PPC: $\chi^2 = 1.4957$, $df = 1$, $p = 0.2213$

DEF (defining/appositive relation):

POSSP and LK vs. PPC: $\chi^2 = 10.2058$, $df = 1$, $p = 0.0014$

SPOSS vs. PPC: $\chi^2 = 4.2039$, $df = 1$, $p = 0.04033$

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