

Possessives as Extended Projections: Possessive Heads and Possessor Phrases¹

Dorian Roehrs (roehrs@unt.edu)

University of North Texas, May 2010, Comments Welcome

1. Introduction

Expressing possession in the noun phrase has attracted a lot of attention in the literature (e.g., see the collections of papers in Alexiadou & Wilder 1998 and Coene & D’hulst 2003, also Alexiadou, Haegeman & Stavrou 2007: esp. Part IV; for typological surveys over possessive noun phrases and pronouns, see Koptjevskaja-Tamm 2003a and Manzelli 1980, respectively; for model-theoretic semantics of possessives, see Barker 1995). Assuming traditional terminology such as possessor and possessum, I focus on proper names like *Mary* as possessors and on non-theta nouns like *book* as possessum nouns. Where deemed appropriate, I will discuss theta/deverbal nouns such as *conquest* and point out some interesting differences between non-theta and theta nouns (cf. also Koptjevskaja-Tamm 2003b).

Unlike the previous chapters of this book, we will now take a more cross-linguistic view. However, as this book is dedicated to German, we will continue focusing on the latter language. We will discuss other languages, especially the Scandinavian languages, when the phenomenon at hand is empirically underdetermined. Besides this broader approach to the study of language, this chapter also intends to provide an alternative perspective to the – what some scholars might call – ‘standard’ view on the structure of possessives. Briefly, unlike the proposal to be developed here, the standard account treats multi-component possessives as non-constituents (for discussion and references, see Alexiadou, Haegeman & Stavrou 2007). Due to the focus of this book, a detailed comparison between these two and other proposals goes beyond the scope of this chapter (but see footnote 26 for some remarks).

It has been widely noted (e.g., Delsing 1998) that the Germanic languages may express possession in a number of ways. For instance, both the Saxon Genitive Construction (SGC) and the Possessor Doubling Construction (PDC) may appear pre-nominally:²

¹ This chapter (5) is based on a presentation given at the 14th Colloquium on Generative Grammar in Porto, Portugal, in 2004 and on an earlier working paper manuscript (Roehrs 2005b). I thank the audience at that conference as well as one reviewer of the manuscript for comments. This chapter is part of a larger book project provisionally entitled “Explorations of the German Noun Phrase”.

² Note that the Possessor Doubling Construction seems to be possible in earlier stages of English and some varieties of French:

- | | | | |
|-----|----|--|------------------------|
| (i) | a. | Canterbury and Chillingworth their books | (Early Modern English) |
| | | (Verhaar 1997: 96, Janda 1980: 249, Barker 1995: 23) | |
| | b. | <i>J’ai vu [Pierre son livre].</i> | (non-Standard French) |
| | | I have seen Pierre his book | |
| | | ‘I have seen Pierre’s book.’ | |
| | | (Zribi-Hertz 2003: 150) | |

I take the absence of the PDC in Modern English and its presence in some Romance dialects to involve no “deep” difference in the relevant grammars.

- (1) Saxon Genitive Construction
- | | | |
|----|----------------------|----------------|
| a. | Mary's book | (English) |
| b. | <i>Marias Buch</i> | (German) |
| c. | <i>Miekes boek</i> | (Dutch) |
| d. | <i>Marie se boek</i> | (West Flemish) |
- (Haegeman 2003: 221)

- (2) Possessor Doubling Construction
- | | | |
|------|-------------------------|----------------|
| a. * | Mary her book | (English) |
| b. | <i>Maria ihr Buch</i> | (German) |
| c. | <i>Mieke d'r boek</i> | (Dutch) |
| d. | <i>Marie euren boek</i> | (West Flemish) |

Note first that while many Germanic languages have the SGC, the occurrence of the PDC is more restricted. Second, although the morphological manifestation of the SGC ranges from – what may look like – a case marker in German to a cliticized element in English to an (apparently) free-standing morpheme in West Flemish, the PDC is somewhat more homogenous in that it involves a possessor and a possessive pronoun where the latter is sometimes reduced.³ In contrast to the Germanic languages, pre-nominal possession in the Romance languages cannot be expressed by a nominal but only by a *pronominal* element (but cf. footnote 2):

- (3)
- | | | |
|------|---|-----------|
| a. * | <i>(il) Gianni+GEN libro</i>
the Gianni+GEN book
(Giorgi & Longobardi 1991: 119, 121) | (Italian) |
| b. | <i>il libro di Gianni</i>
the book of Gianni
'Gianni's book' | |
| c. | <i>il suo libro</i>
the his book
'his book' | |

Rather than focusing on the different distributions and morphological manifestations in the individual languages or language families (see also Harbert 2007: section 4.4), this chapter attempts to give a homogenous structural account of possession.⁴ Basically following Anderson (1983-84), I argue that possessives consist of heads and phrases forming a Possessive Phrase (PossP). It is proposed that the possessive head takes the "Possessor" as a complement. Furthermore, I propose that possessive heads have an extended projection. It is suggested that the Possessor may move inside the extended projection and that the latter may move inside the DP.

³ For some interesting morphological issues involving German proper names, see Krause 1999 and Roehrs & Sprouse 2004; for West Flemish and Afrikaans *se*, see Haegeman 2003, 2004a: 708-9; for details on the reduced possessive pronouns in the Dutch PDC, see Verhaar 1997.

⁴ As Koptjevskaja-Tamm (2003a) indicates, possessives are prone to grammaticalization. This means that some of the following discussion has to be taken with a pinch of salt as it is not always easy to determine which construction is at what stage of grammaticalization in the individual languages. In a sense, then, the proposal to be developed intends to provide a general framework for the analysis of possession.

To be clear, then, possession is argued to involve a uniform internal structure but its syntactic distribution and overt morphological realization may vary across languages.⁵

The chapter is organized as follows: after giving some arguments that possessives are in Specifier positions, I flesh out the basic proposal in some detail. Section 3 provides some evidence in favor of the view that possessives contain heads and section 4 discusses some arguments that point in the same direction but are somewhat more tentative. Before I summarize the main findings of this chapter, I discuss one final issue in section 5.

2. Proposal

Before I turn to the concrete proposal, consider some straightforward arguments that possessives are not in D but rather in a Specifier position.

2.1. Possessives are not in D

Abney (1987: 79) proposes (but ultimately “disprefers” the idea, p. 85) that the *–s* in the Saxon Genitive Construction in (4a) is in D. Considering overt distributional evidence from certain varieties of Scandinavian, (4b-d), we notice that possessives may co-occur with determiners, which are typically assumed to be in D:⁶

- (4) a. Mary’s car
- b. *Karins **den** stora bilen* (Finland Swedish)
 Karin’s the big car-the
 ‘Karin’s big car’
 (Santelmann 1993: fn. 19)
- c. *mett **te** stór húse* (Lappträsk Swedish)
 my the big house-the
 ‘my big house’
 (Vangsnes 1999: 157, Julien 2005a: 207)
- d. *minn **inn** hvassi hjorr* (Old Icelandic)
 my the sharp sword
 ‘my sharp sword’
 (Wessén 1970: 49, Heusler 1932: 126)

⁵ The cases in the text are quite different from Possessor Raising Constructions (for recent discussion, see Lee-Schoenfeld 2006, from which the following datum is taken):

(i) *Tim hat der Nachbarin das Auto gewaschen.* (German)
 Tim has the-DAT neighbor the car washed
 ‘Tim washed the neighbor’s car.’

Of the many interpretative and distributional differences, let us mention just two: the dative possessor is understood as benefactive or malefactive and adverbial elements such as *gestern* ‘yesterday’ may intervene between the possessor and the definite possessum noun phrase.

⁶ It is often assumed that possessive pronouns are the spell-out forms of the relevant personal pronouns and possessive *–s*; for instance, at a more abstract level, *his* consists of *he* and *–s* (cf. Stockwell *et al.* 1973: 676). So, traditionally, possessive pronouns are taken to be equivalent to the Saxon Genitive Construction. Below, I argue that possessive pronouns are equivalent to the possessive *–s* only.

Interestingly, possessives can also occur lower in the structure, namely between the determiner and the head noun. In fact, they can surface on both sides of an adjective:

- (5) a. *in dhemu heilegin **daniheles** chiscribe* (Old High German)
in the holy Daniel's scripture
'in Daniel's holy scriptures'
(Demske 2001: 227)
- b. *in dheru **sineru** heilegun chiburdi*
in the his holy birth
'in his holy birth'
(Harbert 2007: 155)

Assuming that D can host only one element, we conclude that the possessives including *-s* are not in D.⁷ I turn to evidence that possessives are in Specifier positions.

2.2. Possessives are in Specifier Positions

As is well-known, possessives – be they pronouns or full DPs – may occur in different positions in one and the same language:

- (6) a. *den gamle skoen **min*** (Norwegian)
the old shoe-the my
'my old shoe'
- b. ***min** gamle sko*
my old shoe
- (7) a. *(ther) fater **min*** (Old High German)
the father my
'my father'
(Demske 2001: 173)
- b. *(ther) **min** fater*
the my father

This holds not only for non-theta nouns but also for theta/deverbal ones. Unlike the former, the latter assign “verbal” theta roles (see below). Assuming that the generalized Predicate-Internal Subject Hypothesis (e.g., Fukui & Speas 1986) and Baker's (1988) UTAH also apply to deverbal nouns, we are led to conclude that *Cäsar* ‘Caesar’ in

(8b) must have moved from the lower position overtly shown in (8a):

⁷ As witnessed in (4a), the possessive and the determiner do not always co-occur. In fact, they rarely do in the Germanic languages. However, the data in (4b-d) and (5) indicate that these two elements are not in the same position. That means that their frequent complementary distribution cannot follow from a structural account involving the same position. In order to capture their non-occurrence, we can either assume some kind of Doubly-filled DP Filter (e.g., Abney 1987: 271; Giusti 1997: 109, 2002: 70) or we follow the functional account of Haspelmath (1999).

- (8) a. *die Eroberungen Cäsars* (German)
the conquests of Caesar
‘Caesar’s conquests’
- b. *Cäsars Eroberungen*
Caesar’s conquests

Something similar holds for theta nouns with two arguments, the distribution of which also correlates with an interesting interpretative restriction.

As pointed out in Harbert (2007: 150), the agent must precede the theme, (9a). In fact, while the theme may occur in initial position, it can do so only in the absence of the agent, (9b):

- (9) a. *Cäsars Eroberung Galliens*
Caesar’s conquest of Gaul
‘Caesar’s conquest of Gaul’
- b. *Galliens Eroberung (*Cäsars)*
Gaul’s conquest of Caesar

In addition, we know from certain Binding facts that agents are higher than themes and from extraction facts that hierarchically higher genitive arguments block the extraction of lower ones (cf. Giorgi & Longobardi 1991: 68, Mallén 1991, Valois 1991, Ticio 2003: pp. 20, also see below). We have good evidence then for some restrictions on the interpretation and distribution of the DP-internal arguments.

These restrictions are easy to capture by movement that is subject to Relativized Minimality (cf. Rizzi 1990) where the agent c-commands the theme. An account involving different base-generations seems less straightforward (but see section 3.2 for non-theta nouns). Note now that both arguments can move across the head noun,

(8b) and (9b). A simple way to capture this is that unlike the head noun, the arguments involve phrases. If so, possessives cannot be in D but are in Spec,DP when they are in initial position. Below, we will see numerous desirable consequences of the assumption that possessives are not in D but in Spec,DP (for more arguments, see Olsen 1989).

2.3. *The Proposal*

I will basically follow Anderson (1983-84) in treating possessives as involving Possessive Phrases (cf. also Abney’s 1987: 84-5 KP in Spec,DP). Discussing the Saxon Genitive Construction (SGC) in English, Anderson makes a distinction between concrete and abstract nouns (this basically corresponds to our non-theta and theta nouns). She proposes that the former type involves a lexical possessive head (’s), which projects a Possessive Phrase (PossP) and assigns case and a theta role to the Possessor. In contrast, Anderson argues that it is the abstract/theta noun itself that assigns a theta role to the Possessor and ’s is simply inserted to assign case. The latter option does not involve a PossP. As such, possessives with non-theta and theta nouns do not involve the same structure. While I will follow many aspects of Anderson’s proposal, I will diverge from her in certain ways. For instance, I will propose that possessives

with both non-theta and theta nouns involve PossP and I will extend her analysis to the PDC (for the latter parallelism, see, e.g., Fiva 1985 and Krause 1999). Consider this in more detail.

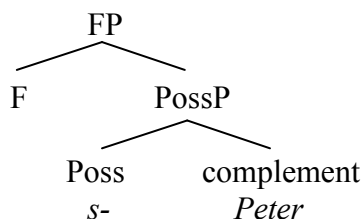
As a point of departure, note that both the SGC and the Possessor Doubling Construction (PDC) consist of two clearly separable elements: “pronominal” heads like *se*, *'s*, *ihr*, or *d'r* and phrasal “Possessors” like *Marie*, *Mary*, *der Maria*, or *Mieke*:

- (10) a. *Marie se boek* (West Flemish)
 b. *Mary's book* (English)
 c. *(der) Maria ihr Buch* (German)
 the Mary her book
 d. *Mieke d'r boek* (Dutch)
 Mary her book
 (de Schutter 1994: 459, Verhaar 1997: 93)

I propose that possessives are complex structures. They involve a PossP, which consists of the head Poss and a complement to the right, the Possessor. To be precise, I claim that the possessive head is a predicate that takes the Possessor as its sole argument. However, I assume that the possessive head does not only involve a PossP but also projects a functional phrase (FP) on top. In other words, possessives involve extended projections (cf. Grimshaw 1991). Let us illustrate the SGC and the PDC in (10) with German (11a). Recalling from **Chapter 2** that possessive pronouns in German consist of a possessive element and *ein*, the proposed underlying structure is given in (11b):

- (11) a. *Peter sein Buch* (German)
 Peter his book
 ‘Peter’s book’

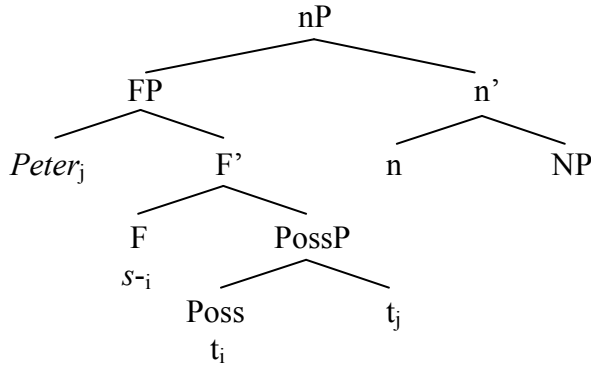
b. *Extended Projection of Possessives*



I propose that all possessives have this underlying structure. As such, I make the strongest and thus most interesting claim. Note already here that this distribution of elements basically derives the post-nominal PDC in the Scandinavian languages, for instance, *boken hans Per* ‘Per’s book’ (for details, see section 3). More to the point, we will give evidence below that the possessive head can be adjectival, prepositional, nominal and demonstrative-like. These elements have all been independently argued to involve extended projections. In this respect, I will suggest that third-person possessive pronouns are similar to demonstrative pronouns (for the latter, see Roehrs to appear). We will have several occasions to discuss this and other parallelisms.

Next, the Possessor in the complement position in (11) may move to Spec,FP. Furthermore, the possessive element *s-* moves to F.⁸ Importantly, this reordering makes use of the extended projection of the possessive head. With all syntactic movements completed inside FP, FP itself is now ready to be merged in Spec,nP:

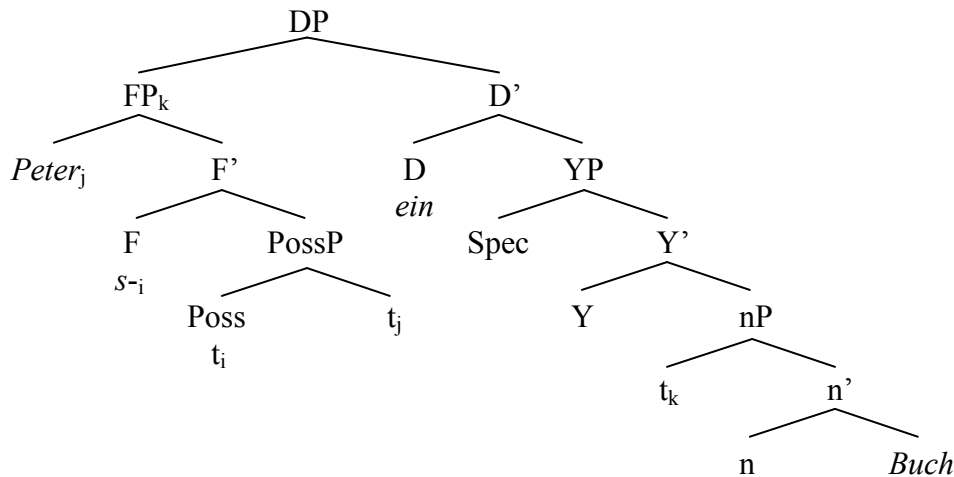
(12) *Initial Position of Possessives*



For the most part, this location of merging FP is what I assume for non-theta nouns (but see also section 3.2). As for theta head nouns, depending on the theta-role to be assigned to the possessive (cf. (9)), FP is merged in different positions in the nP-shell (cf. Valois 1991). However, since I focus on cases involving one possessive, I will, unless indicated otherwise, assume that FP is always merged in Spec,nP.

Finally, FP may raise to Spec,DP to license D as in Longobardi (1994), Julien (2005a), and Roehrs (2009a), and possessive *s-* is supported by *ein* in D under adjacency:⁹

(13) *Position of Possessives after Movements*



⁸ Evidence for this movement can be derived from different types of possessive pronouns in the Scandinavian languages, which vary with regard to their reflexivity and agreement in phi-features with the head noun (see section 3.5).

⁹ Note that YP in (13) stands in for a number of intermediate phrases that can host other elements, for instance, adjectives. For simplicity's sake, I abstract away here from the finer (i.e., intermediate) structure of the noun phrase (but for detailed discussion, see Julien 2005a, Roehrs 2009a, and the previous chapters of this book).

In section 3.3, I provide evidence from Icelandic that the (post-nominal) PDC may move as a constituent. There are some issues worth mentioning here: first, I have only illustrated movement to Spec,DP. However, other lower landing sites are assumed to be possible (cf. Duffield 1996: 319 for Semitic). In particular, possessives clitics could move (as part of their FP) to some lower Specifier position and then cliticize onto a higher head (as in Picallo 1994: 293-6). Second, note that I have not provided a reason for the movement of FP. This is so because I believe there is no homogenous “trigger” for it (for some brief discussion, see section 3.1). Returning to the main line of argument, the assumption that possessives involve extended projections immediately explains a number of phenomena. Let us consider two before we close this section.

It is usually assumed that the phi-features of a noun phrase originate with different heads inside that noun phrase; for instance, gender originates with the head noun N, number with Num, and person with D. As has been noted before (e.g., Behaghel 1923: 638), there is a person restriction on the PDC in that the possessive cannot be in the first or second person:

- (14) a. * *dir Idioten dein Auto*
 you idiot your car
- b. * *uns Linguisten unsere Bücher*
 us linguists our books

With the extended projection involving a possessive head, a Possessor complement, and movement of both of these elements inside FP, there is a straightforward syntactic account for that.

In **Chapter 2**, we argued that possessive pronouns are composite elements consisting of a possessive element and *ein*. In fact, we suggest now that third-person possessive pronouns such as *sein* ‘his’ are words consisting of two heads but first- and second-person possessive pronouns such as *mein* ‘my’ are words consisting of a head and a phrasal possessive element. In more detail, while *ein* in (15) is in D of the matrix noun phrase, I propose that third-person *s-* is the possessive head, (15a), and that first-person *m-* is in the complement position of a possessive head, (15b):¹⁰

- (15) a. [DP [FP [PossP *s-*Poss XP]] *ein* ...]
- b. [DP [FP [PossP Poss *m-*]] *ein* ...]

If *m-* is in the complement position, then we can explain the person restriction noted above. Since the possessive head takes only one complement, this slot is already taken by the first-person possessive element but not by the third-person one. Consequently, the former does not allow a(nother) Possessor but the latter does. The same argumentation extends to second-person possessive elements.¹¹ We briefly return to person restrictions in section 5.

¹⁰ Note that our claim about the different positions of the relevant possessive elements is in keeping with Cardinaletti (1998) and Cardinaletti & Starke (1999), who propose that pronouns may differ in structural size (cf. also Fiva 1985, Taraldsen 1990).

¹¹ This person restriction does not hold in the SGC:

- (i) a. us linguists’ favorite thing to do
 b. you kids’ ideas about fun
 c. you two’s problem

Returning to the discussion of the extended projections, recall from **Chapter 2** that the possessive element and *ein* combine under adjacency. Importantly, we will see in section 3.4 that the complement XP in (15a) does not only involve an overt Possessor but also a covert one (*pro*). As argued in detail in section 3.5, the possessive head moves to F. Now, adjacency between the moved third-person possessive head and *ein* only holds if XP has moved to Spec,FP. This, then, derives an argument that PossP involves more structure on top. As a further consequence of this proposal, German cannot have post-nominal PDC or pre-nominal PDC with the Possessor left in situ (both of which are possible in the Scandinavian languages, see section 4.4). The assumption of an extended projection also explains certain agreement facts.

If we compare a noun phrase involving a possessive pronoun to one headed by a pronominal determiner (e.g., Postal 1966), we can construct a second argument in favor of possessives being complex phrases. While the verb and the reflexive anaphor agree with the pronominal determiner and the third-person possessive pronoun, (16a-b), they do not with the first-person possessive pronoun, (16c):

- (16) a. *Ich armer Lehrer habe mich immer geärgert.* (German)
 I poor teacher have refl.1.sg always be-angry
 ‘I (poor teacher) was always angry.’
- b. *Sein armer Lehrer hat sich immer geärgert.*
 his poor teacher has refl.3.sg always be-angry
 ‘His poor teacher was always angry.’
- c. *Mein armer Lehrer hat sich immer geärgert.*
 my poor teacher has refl.3.sg always be-angry
 ‘My poor teacher was always angry.’

Again, similar facts hold for data in the second person.

The agreement facts in (16) follow if we assume that the person feature of the relevant element percolates up to DP and then enters into an agreement relation with the verb and reflexive anaphor. Specifically, if the relevant element is in a head position (e.g., D), the feature percolates in a direct fashion to its phrase (e.g., DP); if the element is in a Specifier position, it percolates in an indirect manner, that is, by a Spec-head relation with its head. Now, independently of whether the pronominal determiner is a head in D or a head inside a phrase in Spec,DP (cf. Roehrs 2005a), these assumptions immediately explain the agreement facts in (16a). The latter, more complex option is illustrated in (17a) below (percolation is illustrated with superscripts). More needs to be said about the possessive pronouns.

Note first that we proposed above that both types of possessive pronoun are part of FP, the difference being that the third-person pronoun itself is the possessive head but the first-person pronoun is in the complement position of the possessive head. We derive the relevant parts of (16b) and (16c) as (17b) and (17c), respectively:

(from the TV sitcom *Everybody loves Raymond*)

This hints at the fact that possessive *-s* is always in Poss.

- (17) a. $[DP^i \quad [DemP^i \text{ ich}^i] \quad D^i \quad [NP \text{ armer Lehrer}]]$
- b. $[DP^i [FP^i XP_k^i F^i [PossP \text{ s-Poss } t_k]] \text{ ein}^i [NP \text{ armer Lehrer}]]$
- c. $[DP [FP \quad F [PossP \text{ Poss m-}]] \text{ ein} [NP \text{ armer Lehrer}]]$

Above, we proposed that XP has to move to Spec,FP so that *s-* and *ein* can combine under adjacency (note that *s-* moves too, which for simplicity's sake is not indicated in (17b)). Notice that this movement is not needed for *m-*, which is adjacent to *ein* when it is in situ. Consequently, I assume that it stays in the complement position of Poss. If so, *m-* is not in a Spec-head relation with any head and cannot percolate its person feature. The same argumentation applies to the cases in the second person. For obtain a third-person feature on DP, we can either assume that (16b) involves a (double) Spec-head relation and percolation, (17b), or we assume for both (16b) and (16c) that the third-person feature is a default option (cf. Julien 2005a: 147). This can be illustrated by leaving out the superscripts as in (17c). As with the person restrictions discussed above, the different positions of the relevant possessive elements in conjunction with the assumption of an extended projection of the possessive head affords us an explanation of some important facts.

To sum up, we provided the basic proposal that involves a possessive head taking the Possessor as a complement. Furthermore, we suggested that the possessive has an extended projection and that the Possessor and the possessive head may move inside that projection. Finally, we provided two initial arguments for the extended projection of possessives; one involved the explanation of certain person restrictions and the other was concerned with certain agreement facts.

3. Possessives Contain Heads

Having sketched the basic derivations, I now turn to some more evidence that the possessive (= FP) contains a possessive head (= Poss). I argue that this head is a predicate/functor that may assign case, that it is of various lexical categories, that it mediates the establishment of Binding relations, and that it assigns a theta role to its Possessor complement. Despite this evidence against the assumption of a possessive *pronoun*, I will continue to use the traditional terminology throughout the chapter. In the last subsection, I turn to the discussion of possessive pronouns that differ in reflexivity and agreement in phi-features with the head noun in the Scandinavian languages. On the basis of that discussion, I provide the detailed structures.

3.1. Different Morphological Cases

Genitive case assignment in the noun phrase has been widely discussed, often involving drastically different proposals. For instance, while in Chomsky (1981: 170) genitive case is the only case that is not assigned under government, in Chomsky (1986: 193) genitive case is an inherent case assigned at D-structure and differently realized at S-structure, depending on the position of the possessive. Interestingly, here both case-assignment and case-realization are subject to government. In the attempt to overcome the arbitrary character and application of the notion government, the Minimalist Program (e.g., Chomsky 1995) employs Checking Theory.

Considering the “optionality” of possessives with non-theta nouns, such an approach needs to answer the question as to why the Inverse Case Filter (Bošković 1997: pp. 134) is not violated when no possessive is present.

Above, I proposed that the possessive head takes the Possessor as a complement. In fact, I propose in sections 3.4 and 4.1 that the possessive head assigns a theta role to the Possessor. Furthermore, if we assume that the possessive predicate also assigns case to the Possessor, then the connection between these semantic and morpho-syntactic aspects avoids the assumption of “optional” case assignment/checking with non-theta nouns. In particular, this “optionality” is explained by the fact that, when a possessive predicate is present, so is the Possessor and crucially also *vice versa*.

In what follows, I would like to make a distinction between the distribution of FP in the noun phrase, abstract Case assignment, and morphological realization of case. In other words, I would like to propose that while the inner structure of FP is uniform, its distribution is not, neither with regard to the position of the possessive nor with regard to the trigger for the movement of the possessive. Rather, I suggest that a number of different, language-specific factors are responsible. Among others: Focus movement (for Norwegian and Icelandic), different language-specific requirements to license possessive clitics and weak pronouns (as suggested for Romance in Cardinaletti 1998: 19), abstract Case assignment, and perhaps some other triggers.¹² In view of this multitude of factors, there is one immediate consequence: if the distribution of FP in the DP is not uniformly accounted for by abstract structural Case assignment/checking, then it is not surprising to find possessives in different morphological cases and in different positions.

It is well-known that corresponding predicates may assign different cases in different languages and dialects. Assuming possessive heads to be predicates, we expect that their complements (the Possessors) may occur in different morphological cases. As far as I am aware, these different morphological cases do not co-relate with (consistent) differences in interpretation. Consider the following four possessive constructions, in which the Possessor may appear not only in the genitive, but crucially also in the dative, accusative, and nominative case.¹³

(18) Pre-nominal Possessors

- a. *eins ritters tochter* (Early New High German)
 one-GEN knight-GEN daughter
 ‘one knight’s daughter’
 (Demske 2001: 229)

¹² The pre-nominal possessor in some dialects of Norwegian is claimed to be focused (Delsing 1998: 88, Grohmann & Haegeman 2003: 58, Julien 2005a: 203). As for Icelandic pre-nominal genitives, the judgments vary according to Delsing (1993: 158 fn. 17): some judge them as poetic, whereas others consider them grammatical if they are given contrastive stress. Also, note that Cardinaletti’s (1998) proposal does presumably not extend to some Norwegian dialects where it is the lower possessor that appears in reduced form (see Svenonius 1993: 215). As far as I can see, these data are compatible with the Focus movement mentioned in the text.

¹³ To the best of my knowledge, the genitive and dative case seem to be the most frequent in Germanic (for other languages, see Koptjevskaja-Tamm 2003a: pp. 679). Interestingly, van Riemsdijk (1983) points out that those two are the cases most frequently assigned by German adjectives. As we will point out several parallelisms between possessives and adjectives, this does not seem surprising.

- b. *dem altn yidns bukh* (Yiddish)
the-DAT old Jew's book
'the book of the old Jew'
(Jacobs *et al.* 1994: 405, Krause 1999)
- c. (a) *Mari-Ø vendég-e-Ø* (Hungarian)
the Mary-NOM guest-poss-3sg
'Mary's guest'
(Szabolcsi 1983: 91, 89)
- (19) Pre-nominal PDC
- a. *für des knaben sein leben* (Early New High German)
for the-GEN boy his-ACC life
'for the boy's life'
(Behaghel 1923 : 640)
- b. *dem Papp séng Vokanz* (Luxembourgois)
the-DAT father his vacation
'father's vacation'
(Holmberg & Rijkhoff 1998: 99)
- c. *bei den Doktor sein Haus* (Texas German)¹⁴
at the-ACC doctor his-ACC house
'at the doctor's house'
(Eikel 1967: 94; Dal 1971: 176)
- (20) Post-nominal Possessors
- a. *das Haus des Jungen* (German)
the house the-GEN boy
'the boy's house'
- b. *huse pojkom* (Northern Swedish)
house-the boy-the-DAT
'the boy's house'
(Delsing 1998: 98)
- (21) Post-nominal PDC
- a. *húsið hans Jóns* (Icelandic)
house-the his Jon-GEN
'John's house'
(Delsing 1998: 101)

¹⁴ Note that in dialects where the dative case is being replaced by the accusative, one may find both the dative and the accusative. Notice that the preposition *bei* 'at', although also changing in its case assigning properties, takes the accusative in both (19c) and (i):

(i) *Er war bei dem Doktor sein Haus.* (Texas German)
he-NOM was at the-DAT doctor his-ACC house
'He was at the doctor's house.'
(Eikel 1967: 91)

- b. *galom hans farfarom* (Västerbotten)
 farm-the his grandfather-the-DAT
 ‘the grandfather’s farm’
 (Delsing 1998: 101)
- c. *bilen hans Jon* (Norwegian)
 car-the his Jon-NOM/ACC
 ‘Jon’s car’

Besides these different case possibilities on the Possessor, note also that in both the pre- and post-nominal PDCs in (19) and (21), the possessive pronoun and the Possessor do not agree in case. We return to this below.

To reiterate, although the genitive is possible in all these constructions, the dative, accusative and nominative case may also occur. With the case on the Possessor not uniform, we are led to conclude that the case assigner/checker is not a functional head but a (semi-)lexical one (for recent discussion of non-structural case, see Woolford 2006). Unlike functional heads, lexical heads are lower in the structure. Above, we identified this head as Poss, which is at the bottom of FP. More generally, assuming that case assignment is a matter of heads, we have evidence for the presence of a head inside the possessive.

3.2. *Different Lexical Categories of the Possessive Head*

Recall that I suggested above that the distribution of FP in the DP is not always due to abstract Case assignment/checking but also to other factors. If this is true, then we expect the occurrence of possessives that, themselves, do not require case to be licensed in the DP.¹⁵ Thus, besides noun phrases, we should also find other lexical phrases such as adjective phrases and prepositional phrases and perhaps more. Note now that this fits well with the proposal that possessive heads are predicates, which themselves come in different lexical categories.

It is well-known that, like many other languages (e.g., Manzelli 1980, Lyons 1999: 124-5), Italian and certain varieties of German have adjectival possessives:

- (22) a. *il suo libro* (Italian)
 the his book
 ‘his book’
- b. *ein Ihriger Brief* (Southern German)
 a your letter
 ‘your letter’
 (from the author Rilke, cited in Duden 1995: 332)

Below, I provide evidence that when no overt Possessor is present, *pro* is involved.

¹⁵ What I mean by that is that the “obvious” possessive element does not bear “possessive” case. However, due to our one-to-one relation between possessive heads and Possessors, a null element (*pro*) may be the bearer of that case (see section 3.4).

Second, the possessive head may also be a preposition.¹⁶ For instance, I propose that *von* ‘of’ in German possessives is not brought about by case assignment (e.g., Lindauer 1995, 1998) but is a full-fledged preposition throughout the derivation. Evidence for this claim comes from pre-nominal *von*-phrases, which precede the determiner and seem to have some focal stress. Compare (23a) to (23b). Crucially, this is not possible with English possessives:

- (23) a. *das Buch von der Mutter* (German)
 the book of the mother
 ‘mother’s book’
- b. *von der Mutter* { *das* / *ein* / ?**dieses* / **Ø* / **ihr* } *Buch*
- c. * of the mother(’s) { the / a / this / *Ø* / her } book

The difference between (23b) and (23c) follows immediately if German *von* is not a morphological realization of abstract case but English *of* is.¹⁷ Furthermore, employing the Verb-Second Constraint in German as a test for constituency of the possessive and the remainder of the noun phrase, we conclude that the pre-nominal *von*-phrase forms a constituent with the possessum nominal, (24a).¹⁸ In fact, the *von*-phrase seems to be outside the DP proper, assuming that the quantifier *alle* ‘all’ in (24b) and (24c) is higher than the DP (see also **Chapter 2** footnote 23):

- (24) a. [*Von Peter das Buch*] *habe ich gelesen*
 of Peter the book have I read
 ‘I have read Peter’s book.’
- b. *von Peter alle Bücher*
 of Peter all books
 ‘all (of) Peter’s books’
- c. ?? *alle von Peter die Bücher*
 all of Peter the books

Note that if the *von*-phrase is outside the DP proper and recalling the typical complementary distribution of the determiner and the possessive in German (cf. footnote 7), then it is not surprising to find both elements at the same time in (23b). In fact, assuming that the *von*-phrase

¹⁶ This has been independently suggested for possessive ‘have’ in the clausal domain (e.g., see den Dikken 1997: pp. 137 for an overview).

¹⁷ Note that the ungrammaticality in (23c) is not due to a general phonological constraint on *of*: partitive *of* can appear if it is not adjacent to a noun:

(i) Of those people, I just met four.

¹⁸ A similar point can be made with possessives in embedded Spec,CP (data are from Fortmann 1996: 118):

(i) a. *Was sagst du [wessen Bruder] er angerufen hat?*
 what say you whose brother he called has
 ‘Whose brother do you say he has called?’

b. *Was sagst du [von wem den Bruder] er angerufen hat?*
 what say you of whom the brother he called has

is base-generated outside the DP, our proposal is compatible with the presence of both a definite and an indefinite determiner.

For the sake of argument, let us assume for a moment that the *von*-phrase has undergone movement from a position inside the DP. With a definite article present, cf. (23b), this DP is definite and movement out of it should be degraded (e.g., Bowers 1988), contrary to fact. Furthermore, movement through Spec,DP should leave a copy behind triggering definiteness of the DP (see section 3.4, also cf. (4) above). In the latter scenario, the possibility of the indefinite determiner would be unexpected. These problematic issues do not arise under base-generation of FP outside of the DP. Crucially now, if this is correct, then it is hard to see how *von* in (23b) can be the morphological realization of abstract case as FP is not even part of the DP proper.¹⁹

Summarizing so far, we have seen that adjectives and prepositions can function as the heads of possessives. As such, we have evidence for lexical heads inside FP that can differ in category. Finally and more tentatively, I suggest that “nominal” possessives may, in fact, be the complement of an empty nominal possessive head, here illustrated by \emptyset_N :

- (25) a. *das Buch des Mannes* (German)
 the book the-GEN man
 ‘the man’s book’
- b. *das Buch* [_{FP} \emptyset_N [*des Mannes*]]

With the possessive head a null element, it needs to be licensed. I propose that it is a null suffix that encliticizes to the head noun in the sense of Bošković & Lasnik (2003: 534-6). This assumption derives the fact that the morphologically genitive phrase must be adjacent to the head noun. Evidence for the required adjacency comes from the different behavior of prepositional and genitival possessives with regard to demonstrative reinforcers such as *da* ‘there’:

- (26) a. *das Bild da von dem Mann*
 that picture there of the man
 ‘that there picture of the man’
- b. ?* *das Bild da des Mannes*
 that picture there of.the man

¹⁹ Interestingly, the SGC cannot be extracted from the possessum nominal but the *von*-possessive can (the data are adapted from Fortmann 1996: 126):

- (i) a. * *Karls hat* [*t (der) Bruder*] *angerufen*.
 Karl’s has (the) brother called
 b. *Von Karl hat* [*t der Bruder*] *angerufen*.
 of Karl has the brother called
 ‘Karl’s brother has called.’

In the text, I claimed that the *von*-possessive is in a higher position than the SGC. If so, the grammaticality judgments in (i) are consistent with the discussion in Gavrusseva (2000) and Alexiadou, Haegeman & Stavrou (2007: pp. 608), who propose that only higher Specifiers can be extracted.

These facts follow from the assumption that unlike the preposition phrase in (26a), the genitive phrase in (26b) involves a null possessive head that needs to be licensed by adjacency to the head noun.²⁰

If the proposal that the “nominal” possessive involves a null affix is accepted, then we also have an explanation of double case-markings. Recall that I suggested above that the distribution of the possessive FP due to abstract Case is independent of the case assignment inside FP. Assuming this to be correct, we expect both of these case-licensing operations to co-occur where the abstract case has its own morphological manifestation. In other words, our proposal predicts the possibility of double case marking. Under my assumptions, (27a) involves case marking inside the FP by the possessive head *-s* as well as case assignment to the “nominal” FP as a whole by the insertion of the case marker *av* (similar to English *of*), as illustrated in (27b).²¹

- (27) a. *kongen av Frankrikes* (Norwegian)
king-the of France’s
‘France’s king’
(Hellan 1986: 99)
- b. *kongen av* [_{FP} *Frankrike*_i [_{POSSP} *s*_N *t*_i]]

To the extent that this analysis is correct, it avoids the issue of how case assignment to one and the same element can occur twice.²² To be clear, this double case marking is different from the PDC-cases discussed above.

We noticed above that the possessive pronoun and the Possessor in both the pre- and post-nominal PDCs in (19) and (21) do not agree in case. Rather than analyzing these cases as involving double case marking, I propose that possessive pronouns involve regular “feature sharing”, that is, concord with the possessum noun. This follows from the composite analysis of the possessive pronoun itself (for German, see **Chapter 2**) and two instances of case assignment, one to the matrix DP containing the possessum noun and one to the Possessor inside FP. (In

²⁰ In fact, adjacency effects are often taken to be reflexes of morphological rather than syntactic phenomena (e.g., Lasnik 1981). This is of particular relevance here considering that the head noun undergoes partial movement as, for instance, in *die Wut_i des Präsidenten t_i gegen sich* ‘the wrath of the President against himself’ (see in particular Vangsnes 1999, 2004; Julien 2002, 2005a; Roehrs 2009a: 20). If so, it is not clear how to capture this adjacency effect syntactically as the head noun and the possessive are neither in a Spec-head nor a head-complement but rather in a “head-lower phrasal position” relation. The latter should, at least in principle, allow the occurrence of an intervening phrase, contrary to the facts seen above. Given our structural assumptions, the adjacency effect follows from the assumption of a null suffix.

²¹ Note that abstract case and its morphological realization (here the insertion of *av*), is, unsurprisingly, subject to certain conditions:

(i) (**av*) *Frankrikes konge*
of France’s king

²² Note that the Norwegian example in (27a) is different from English *a book of Mary’s*. For instance, the latter is usually indefinite by itself and the Possessor must be animate. To account for this construction, I will assume some empty category (ec) representing the null possessum, (ia) (cf. Barker 1995: 26, Zamparelli 1998). This is not implausible considering (ib):

(i) a. a book of Mary’s ec
b. a book of {mine/*my} ec

For other proposals, see the collection of papers in *Lingua* 101 (1997), Barker (1997), Harbert (2007: 158), Larson & Cho (1998), den Dikken (1998, 2006), and references cited therein.

section 3.5, I address the categorial status of possessive pronouns in general and discuss the Norwegian possessive pronouns *sin* and *hans* in detail.)

Having documented that possessive heads differ in lexical category, we have provided evidence that FP involves a head. Note that languages apparently differ with regard to what kind of possessive heads they make lexically available. Finally, although possessive heads may differ with regard to their lexical category, I will continue to use PossP to designate the immediately projected phrase of the possessive head. What makes PossP homogenous is not the lexical category of its head but the function of the lexical head with regard to establishing the possessive relation (section 4.1).

3.3. *Lack of Condition C Effects with DP-internal Binding*

Besides the often discussed pre-nominal PDC, (28a), Northern Scandinavian also has a post-nominal PDC, repeating here an example from section 3.1 as (28b) (see Fiva 1985, Ramat 1986 and Delsing 1993: chap. 5; for other languages, see Koptjevskaja-Tamm 2003a: pp. 665, Verhaar 1997: pp. 96).²³

- (28) a. *Jon sin bil* (Norwegian)
Jon refl car
'Jon's car'
- b. *bilen hans Jon*
car-the his Jon
'Jon's car'

What is interesting to note about (28b) is that it contrasts with its clausal counterpart with regard to co-reference: while the pronominal element *han* 'he' in (29a) cannot be co-indexed with *Per*, *hans* 'his' has to be in (29b):

- (29) a. *Han_{i/k} ser Per_i i speilet*
he sees Per in mirror-the
'He sees Per in the mirror.'
- b. *bildet hans_i Per_{i/*k}*
picture-the his Per
'Per's picture'

Now, if we were to treat the clause and the noun phrase in a parallel fashion with regard to c-command, then we would also expect a Condition C violation of the Classical Binding Theory (Chomsky 1981) in (29b). However, the opposite state-of-affairs holds. This apparent problem is in dire need of an explanation. The following discussion argues that since possessive pronouns are predicate heads, they themselves do not directly participate in (syntactic) Binding relations. As such, this presents another argument that possessives contain heads. At the end of this

²³ Recall that with *ein* part of the possessive pronouns in German, the post-nominal PDC is not possible in the latter language. As discussed in section 3.5, the Scandinavian possessive pronoun *sin* is also decompositional but in a different way.

subsection, I argue against an alternative account of (29b), which involves lack of c-command and as such, would not lead to a Condition C violation. Consider first some basic properties of the post-nominal PDC.

To begin, note that *hans* cannot be the genitive of the preproprial article *han* in cases like *han Per* ‘(he = the) Peter’. Among other things, Delsing (1998: 101-2) observes that *hans* may not only co-occur with a Possessor in the dative, repeating (21b) here as (30a), but also with a (true) preproprial article, (30b). As can be seen in (30c), *hans* can, in fact, be replaced by a possessive –s. Finally, we can observe that unlike free-standing preproprial articles, *hans* can also follow the Possessor, (30d):

- (30) a. *galom hans farfarom* (Västerbotten)
 farm-the his grandfather-the-DAT
 ‘grandfather’s farm’
- b. *bilen hans n Jon* (Norwegian/Northern Swedish)
 car-the his the Jon
 ‘Jon’s car’
 (Holmberg & Sandström 1995: 33)
- c. *bilen n Jons*
 car-the the Jon’s
- d. *æ mand hans hat* (Western Jutlandic)
 the man his hat
 ‘the man’s hat’
 (Delsing 1993: 153, Verhaar 1997: 97)

Another characteristic is that *hans* and its Possessor cannot be separated by “rightward” movement, (31b). Furthermore, the FP cannot follow other complements, (31c):

- (31) a. *bildet hans_i Per_i av Kari*
 picture-the his Per of Kari
 ‘Per’s picture of Kari’
- b. * *bildet hans t_k av Kari Per_k*
- c. ?* *bildet t_k av Kari [hans Per]_k*

Crucially, however, there is evidence from Icelandic that the post-nominal PDC can move as a constituent.

Apart from partial N-raising of *bækur* ‘books’ to the intermediate Article Phrase (ArtP) (see Vangsnes 1999, 2004; Julien 2002, 2005a; Roehrs 2009a), I assume that (32a) presents the basic word order. With this in mind, I interpret the contrast in (32b-c) such that the FP *hans Péturs* first moves out of Spec,nP to a higher Specifier position and then ArtP raises to Spec,DP as an instance of remnant movement. This is illustrated in (32d).²⁴

²⁴ To complete the empirical picture, note that a *pronominal* possessive does not have to move out (Vangsnes 1999: 145):

- (32) a. *þessar fjórar bækur_i mínar t_i* (Icelandic)
 these four books my
 ‘these my four books’
- b. *bækurnar fjórar hans Péturs*
 books-the four his Peter-GEN
 ‘Peter’s four books’
 (Vangsnes 2004)
- c. * *bækurnar hans Péturs fjórar*
 books-the his Peter-GEN four
- d. $[_{DP} [_{ArtP} bækurnar t_k]_i D [_{CardP} fjórar [_{FP} hans Péturs]_k t_i]]$

Interestingly, the FP behaves just like a PP complement in that both have to vacate the phrase containing the partially raised head noun before remnant movement of that phrase takes place:

- (33) a. *frægu bækurnar fjórar um tónlist*
 famous books-the four about music
 ‘the four famous books about music’
- b. * *frægu bækurnar um tónlist fjórar*
 famous books-the about music four
- c. $[_{DP} [_{AgrP} frægu bækurnar t_k]_i D [_{CardP} fjórar [_{PP} um tónlist]_k t_i]]$

This parallelism between the PP and the possessive provides good evidence that the latter is also a constituent. In a similar vein, Koptjevskaja-Tamm (2003a: 631) reports a personal communication by Marit Julien such that post-nominal PDCs can also be coordinated:

- (34) *huset [hass] og [hennes Maria]* (Kongsvinger)
 house-the his and her Maria
 ‘Maria’s and his house’

Again, I take this as evidence that the possessive pronoun and the Possessor form a constituent (see also Julien 2005a: pp. 168).

To sum up these preliminary remarks, we have established that *hans* itself is not the preproprial article of *Per*, that the possessive *hans Per* cannot be separated, that this possessive can move as a constituent, and that it can be coordinated. In what follows, I will show that under traditional assumptions *hans* is in an A-position as it can bind reflexives but not R-expressions. However, being in an A-position should lead to a Condition C violation with regard to *Per* inside

-
- (i) a. *hinar þrjár frægu bækur mínar* (Icelandic)
 the three famous books my
 ‘my three famous books’
- b. *frægu bækurnar mínar þrjár*
 famous books.DET my three
- c. $[_{DP} [_{AgrP} frægu bækurnar mínar]_i D [_{CardP} þrjár t_i]]$

the post-nominal PDC, contrary to the facts. This apparent problem is solved if we assume that *hans* is actually a possessive predicate with *Per* its overt complement. First, consider the picture that emerges under traditional assumptions.

As can be seen in (35), *hans* can bind the reflexive *seg selv* ‘(him)self’ but not the R-expression *Per*. Assuming Binding to be A-binding (Chomsky 1981), we conclude that the Binder *hans* is in an A-position from where it can c-command the reflexive and the R-expressions (see also Taraldsen 1990):²⁵

- (35) *bildet hans_i av {seg selv_i / *Per_i}*
 picture-the his of {refl / Per}
 ‘his picture of himself/Per’

Next we add *Per* to (35), generating a post-nominal PDC. Interestingly, we find the exact same grammaticality contrasts. What is interesting here is that *hans* A-binds the reflexive *seg selv* across the R-expression *Per*, which itself must be coreferential with *hans*, as already seen in (29b) above. In contrast to our expectations, this does not result in a Condition C violation in (36) (for related facts in the German pre-nominal PDC, see Krause 1999).

- (36) *bildet hans_i Per_i av {seg selv_i / *Per_i}*
 picture-the his Per of {refl / Per}
 ‘Per’s picture of himself/Per’

Similar facts hold for a complement of a head noun when that complement contains a possessive of its own. Again, *hans* can bind the reflexive *sin* but not the nominal *Per*:

- (37) *bildet hans_i av broren {sin_i / *til Per_i}*
 picture-the his of brother-the {refl / of Per}
 ‘his picture of his/Per’s brother’

Again, the addition of *Per* does not change the Binding possibilities:

- (38) *bildet hans_i Per_i av broren {sin_i / *til Per_i}*
 picture-the his Per of brother-the {refl / of Per}
 ‘Per’s picture of his/Per’s brother’

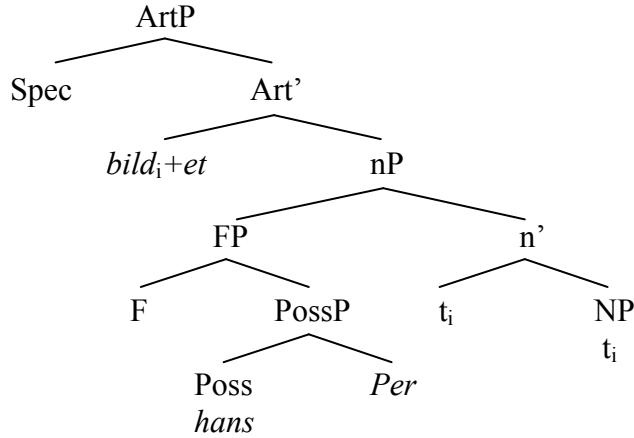
To summarize, I have shown that *hans* must be in an A-position in traditional terms c-commanding the complement of *av*. At the same time, however, this does not lead to a Condition C violation with regard to *Per* inside the post-nominal PDC. In order to explain this paradoxical situation, recall that I base-generate the FP in the nP-shell, with the Possessor complement to the right of the possessive head (cf. (11)). In other words, I propose that the post-nominal PDC is a possessive in situ, with the head noun *bild* ‘picture’ raised:²⁶

²⁵ I would like to thank Terje Lohndal, Kari Gade, and especially Marit Julien for help with these data. Ideally, I would have liked to test the Binding facts with the post-nominal PDCs in (30a-b) but I did not have access to the relevant speakers.

²⁶ For a more detailed discussion of the derivation of the Scandinavian DP, see Roehrs (2009a: Chapter 2). Delsing (1998) also takes the possessive pronoun to be a head. In fact, it heads a PossP, which is part of the extended

- (39) a. *bildet hans Per*
 picture-the his Per
 ‘Per’s picture’

b. *Post-nominal PDC*



As seen above, the Possessor *Per* is, in some sense, “optional”. I assume here but argue in more detail below that there is a null Possessor, call it *pro*, if the possessive pronoun is by itself:

- (40) a. *bildet hans*
 picture-the his
 ‘his picture’

b. [*bild_i-et* [**nP** [**FP** *hans* [**DP** *pro*]] **t_i** [**NP** **t_i**]]]

To be clear, then, in order to account for the lack of a Condition C violation, recall again that *hans* is actually not a pronoun but a possessive predicate. We return to the discussion of DP-internal Binding in section 4.3. There we suggest that Binding is most likely semantic in nature where the possessive pronoun plays a mediating role. Note finally that there is an alternative account of the post-nominal PDC, where *hans* does not c-command *Per*. If this analysis could be upheld, it would avoid the conclusion that the possessive pronoun is a predicate.

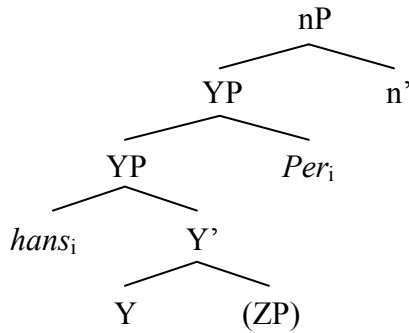
Assuming as above that the constituent *hans Per* is in Spec,nP, one could propose that *hans* is in Spec,YP, an A-position, and *Per* is right-adjoined to YP:

projection of the possessum noun. Assuming that PossP is between DP and NP, he derives the post-nominal PDC by moving the Possessor *Per* to Spec,PossP, *hans* to D and *boken* to Spec,DP (p. 103):

- (i) [**DP** *boken_k* [**D'** *hans_i* [**PossP** *Per_j* [**Poss'** **t_i** [**NP** **t_k** **t_j**]]]]]

Besides the question of the phrasal status of *boken*, I cannot see how the Double Definiteness effect is derived straightforwardly when an adjective is added as in *den gamle boken hans Per* ‘the old book(-the his =) of Per’ (also Julien 2005a: pp. 166). An account with the post-nominal PDC in situ does not face this and other problems.

(41) *Alternative Analysis of the PDC (Incorrect)*



Taking the first branching segment (rather than node) to be the relevant characteristics of c-command, *hans* would not c-command *Per* and a Condition C violation would not be expected. Furthermore, with *Per* in an A'-position, we would not expect a Condition B violation with regard to *hans* either. Note, however, that if we define c-command in such a way, then all the other Binding facts become mysterious as *hans* could never c-command out of YP and Spec,nP in general. Thus, an approach involving the lack of c-command of *hans* with regard to *Per* will not work to explain the lack of a Condition C violation in the post-nominal PDC.

3.4. *Possessors Involve Arguments*

Above, I proposed that possessive heads are mono-valent functors. We now turn to some instances that do not seem to have an “obvious” Possessor. I will strengthen the proposal that all possessive heads take a Possessor, be it an overt element as already documented above or a covert one as argued for in this section. Besides some other desirable consequences, this will allow us to keep the one-to-one relation between possessive heads and Possessors, both with regard to case and theta-role assignment. Interestingly, both the SGC and the PDC provide evidence for the presence of argumental Possessors albeit in quite different ways.

An argument for the presence of a null Possessor can be derived from “(in)definiteness spread”, according to which the Possessor of the DP determines the definiteness of the entire DP by Spec-head agreement (e.g., Alexiadou 2005). First, note that the definiteness of the Possessor in the SGC has the same effect in the *there*-context in (42b) as the associate noun phrase does in (42a). Second, abstracting away from the slight stylistic clash of the colloquial PDC in a fairy-tale context, the definiteness of the Possessor also determines that of the entire DP. Observe the contrast in (42c):

- (42) a. There is {a dog / *the dog} in the garden.
- b. There is {a man / *the man}’s dog in the garden.
(Dobrovie-Sorin 2003: 97, Jackendoff 1977)
- c. *Es war einmal* {*einem König* / **dem König*} *seine Tochter*.
it was once {a-DAT king / the-DAT king} his daughter
‘Once upon a time, there was { a / *the } king’s daughter.’

These grammaticality judgments are not surprising given that the SGC and the PDC have essentially the same structure and the same mechanism brings about the “spread” in definiteness.²⁷ Crucially, both possessive –s and the possessive pronoun do not seem to play a role in (42b-c).

When no Possessor seems to be present as in (43a) below, the sentence becomes ungrammatical (similar facts can be found in West Flemish, see Haegeman 2003: pp. 233). Note now that it is straightforward to rule out this datum. On a par with the definiteness cases in (42), let us propose that there is a null element that is definite in interpretation. In particular, I suggest that this element is the definite pronominal *pro*, (43b) (see also Alexiadou, Haegeman & Stavrou 2007: 611; for null Possessors, cf. also Szabolsci 1994, Longobardi 1996, and Delsing 1998: 95):

- (43) a. * *Es war einmal seine Tochter.*
 it was once his daughter
 ‘Once upon a time, there was his daughter.’
 b. [*pro seine Tochter*]

This pronominal is the complement of the possessive head and gets case from it.²⁸ As a null element, *pro* needs to be licensed (see below). I argue that it is this pronoun that makes the entire DP definite.²⁹

Returning to our main line of argument, definiteness is usually assumed to originate at the DP-level. This means that *pro* involves a DP. Furthermore, DPs are usually assumed to be arguments (Longobardi 1994). This definiteness effect then provides evidence that possessive heads take Possessor arguments. To be clear, then, possessive pronouns, be they “transitive” or “intransitive”, always involve a PDC. As usual, I will continue using traditional terminology. We turn to the SGC.

As can be seen in (44a-c), the Possessor cannot be an expletive, both with non-theta and theta nouns (cf. Alexiadou 2001: 60 and references cited therein):

- (44) a. * there’s car
 b. * there’s arrival of Peter

²⁷ Under our assumptions, this mechanism cannot be a simple Spec-head relation but something more involved. As in section 2.3, the moved Possessor in Spec,FP agrees with F by Spec-head agreement percolating the definiteness feature to FP. FP in turn agrees with D by Spec-head agreement percolating the feature to DP:

(i) $[_{DP}^i [_{FP}^i \text{Possessor}_k^i F^i [_{PossP} \text{Poss } t_k]]] D^i [\dots]]$

For first- and second-person possessives, we need to assume something else. For instance, unlike the agreement in phi-features (and general adjacency considerations), definiteness seems to be more of a semantic phenomenon. As such, we could suggest that these possessives move to Spec,FP at LF.

²⁸ Note that *pro* cannot occur in the SGC by itself:

(i) * *pro*’s {car/arrival of Peter}

I assume that this has to do with the fact that ‘s is an enclitic that requires a relevant overt host.

²⁹ A reviewer wonders if (in)definiteness spread is indeed what is involved in these cases (cf. also Sobin 2002: 608; Lyons 1999: 23 fn. 12, 25 fn. 14), considering that the indefinite DP in (ib) is degraded with a definite complement:

(i) a. There is {a/??the} boy’s picture on the wall.
 b. There is a picture of {a/??the} boy on the wall.

I will assume here that specificity/presuppositionality is the relevant property, without reviewing the enormous literature on this topic. This does not present a problem as *pro*, unlike PRO, is specific.

- c. * I didn't expect its rain.
(Higginbotham 1983: 416 fn. 9)

This ungrammaticality follows straightforwardly if the possessive head is a mono-valent predicate that must assign a theta-role to the Possessor. Now, theta-roles can only be assigned to non-expletive DPs. This then provides another piece of evidence that Possessors are arguments.

To sum up, we have seen four arguments that the possessive contains a head. They are derived from different morphological case assignments to the Possessor, different lexical categories of the possessive head, the lack of Condition C violations with DP-internal Binding, and Possessors involving arguments.

3.5. Reflexivity and Agreement in Phi-features

In section 2.3, we proposed that the stem of the possessive pronoun moves from Poss to F. Besides providing evidence for this claim from Scandinavian, this section addresses the following questions: (i) in what sense, if any, are possessive pronouns co-indexed with their Possessors in the PDC, and (ii) how can we derive the different properties of *sin* and *hans* with regard to DP-external Binding, on the one hand, and with regard to agreement in phi-features with the head noun, on the other?

Recall that the Possessor and the possessive pronoun have to be co-indexed in the PDC, independent of the language or the position of the PDC:

- (45) a. *Peter_i sein_{i/*k} Buch* (German)
Peter his book
'Peter's book'
- b. *Per_i sin_{i/*k} bok* (Norwegian)
Per refl book
- c. *boken hans_{i/*k} Per_i*
book-the his Per

What makes this interesting is that co-indexations are different for "Possessors" that are outside the DP; for instance, when the Possessor is the subject in a clause containing the possessum DP. This is what I mean by DP-external Binding. At first glance, it seems to be a lexical property of the possessive pronoun that determines the Binding relations (but see momentarily). For instance, German *sein* 'his' can but does not have to be co-indexed with the subject of the clause. This is in sharp contrast to Norwegian (and some other languages, see Manzelli 1980: 79 table 12), where reflexive *sin* has to be co-indexed with the subject and pronominal *hans* must not be (e.g., Hestvik 1992):

- (46) a. *Peter_i liest sein_{i/k} Buch* (German)
Peter reads his book
'Peter reads his book.'

- b. *Per_i leser sin_{i/*k} bok* (Norwegian)
 Per reads refl book
- c. *Per_i leser hans_{*i/k} bok*
 Per reads his book

To capture the difference between (45) and (46), recall that I proposed above that the possessive pronoun is a predicate functor that is mono-valent; that is, the possessive head obligatorily takes one complement – either an overt Possessor or *pro*. In the discussion of DP-internal Binding in section 3.3, I proposed that post-nominal PDCs have a *pro* Possessor. Considering the DP-external Binding facts in (46), I suggest the same; namely, that *pro* is the actual Possessor inside the DP. Now, with the possessive pronoun a functor (and not an argument), I assume that the possessive head does not bear an index. As such, there is no actual co-indexation between the Possessor and the possessive head. In fact, I suggest in section 4.2 that both of these elements stand in an agreement constellation similar to that of subject and predicate. We arrive then at the following picture for the Scandinavian languages:

- (47) a. **(pro_i / Per_i) sin bok*
 Per refl book
 ‘his/Per’s book’
- b. *boken hans *(Per_i / pro_i)*
 book-the his Per

Before we turn to the derivations of (47), let us discuss the categorial status of possessive pronouns. This discussion sets up the analysis of the PDC involving *sin* and *hans*, at the end of which we return to the Binding facts.

So far, I have remained vague about the lexical category of possessive pronouns. Note now that it is argued in Roehrs to appear that demonstrative pronouns also involve extended projections. If we make the assumption that possessive pronouns are parallel to demonstrative pronouns in the relevant way, then we can explain a number of important facts. In particular, we can explain a correlation in the Scandinavian languages where a possessive pronoun agreeing with its matrix head noun in phi-features (e.g., *sin*) must be reflexive with regard to its clausal subject; in contrast, a non-agreeing possessive pronoun (e.g., *hans*) cannot be reflexive with regard to its clausal subject.

In Roehrs to appear, I propose that demonstratives are complex elements that consist of different parts (also Leu 2008). Following the technical instantiation of Roehrs & Putnam (2009) and Roehrs (2010), we can suggest that similar to demonstratives like *den* ‘that’, (48a), certain kinds of possessive pronouns also involve different parts, (48b). To be precise, the relevant elements consist of a stem and an inflection. Importantly, I assume that *hans* is different. I propose that the – what looks like – genitive ending –s has been reanalyzed as part of the stem.³⁰ Hence, I assume that *hans* has no inflection, (48c):

³⁰ Reanalysis of this type has been reported before. For instance, German *nichts* ‘nothing’ is based on an old genitive form (Paul *et al.* 1989: 236). If this is true, we might expect a(nother) genitive marker to occur on *hans*. This is borne out in colloquial Norwegian, where *hans* can be the complement of Poss: *bilen hanses* ‘his car’ (datum from Julien 2005a: 236).

(48)		inflection	+	stem	
a.	<i>den/det/de:</i>	<i>-n/-t/-Ø</i>		<i>de+</i>	(Norwegian)
b.	<i>sin/sitt/sine:</i>	<i>-n/-tt/-ne</i>		<i>si+</i>	
c.	<i>hans:</i>	<i>-</i>		<i>hans</i>	

Suppose that these parts are separately base-generated in the extended projection of the possessive; the inflection is under F and the stem is under Poss. Now, unlike *hans*, the stem *si+* must undergo head movement to F to pick up its inflection.³¹ This means that *sin* winds up in F but that *hans* remains in situ. Moreover, let us assume with Roehrs to appear that the highest phrase in the extended projection is a phase in the sense of Chomsky (2001). With FP a phase, we can link the different agreement patterns of *sin* and *hans* to their different behavior with regard to reflexivity documented above.

Specifically, suppose that only elements in the edge of the relevant phase are reflexive. This holds for *sin*, which is in the head position of the edge. I assume that the obligatory reflexivity follows from a long-distance Agree relation between the subject and *sin* (or *sin*'s complement *pro*) “filling in” some underspecified N-features in the sense of Richards (1997).³² In contrast, with *hans* remaining in situ, the latter is below the edge of the phase and cannot be reflexive. These assumptions, then, allow us to capture the correlation between agreement and reflexivity straightforwardly.³³ Let us turn to the actual derivations.

As already fully illustrated with (39b) in section 3.3, the post-nominal PDC in (47a) has FP in situ (i.e., in Spec,nP). The head noun *bok* raises to Art as in Julien (2002, 2005a) and Roehrs (2009a) (I abstract away from the structure of the noun phrase above ArtP here, see again footnote 26):

- (49) a. *boken hans (Per)*
 book-the his Per
 ‘his/Per’s book’
- b. $[bok_i + en]_{nP} [FP [PossP\ hans [DP\ pro/Per]]] t_i [NP\ t_i]]$

To repeat, according to our assumptions, *hans* stays in situ. This follows from its non-decompositional structure. Crucially, remaining below the edge of the phase FP, it cannot function as a reflexive.

³¹ Recalling the discussion of extended adjective constructions in **Chapter 1** section 3.1, we may ultimately want to relabel FP as InflP (at least in the Scandinavian languages). We could then also suggest that *si+* does not combine with its inflection by head movement. Rather, we could suggest that, once the Possessor has moved to an intermediate Specifier, the complement of Infl moves to Spec,InflP. This would derive the fact that *sin*, just like pre-nominal adjectives, always has its complement to the left.

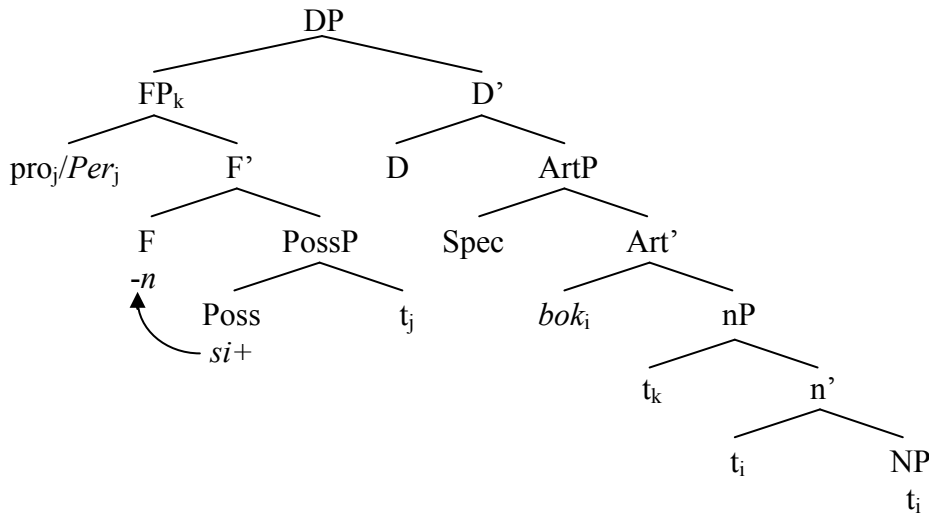
³² Note that this long-distance agreement avoids the assumption that *sin* undergoes LF-raising out of DP often suggested in earlier accounts (cf. Chomsky 1986: 175, going back to Lebeaux 1983, and Hestvik 1992).

³³ This analysis may go beyond the Scandinavian languages (for a possible correlation between the adjectival, i.e., agreeing, status of reflexive possessives and the pronominal status of non-reflexive possessives, see Cardinaletti 1998: 48 fn. 27).

Turning to the pre-nominal PDC in (47b), the head noun also moves to Art as above. In addition, the Possessor and the possessive stem *si+* have moved inside FP and FP itself moves to Spec,DP (for an explanation of the absence of the suffixal determiner in this case, see Julien 2005b).³⁴

- (50) a. (Per) *sin bok*
 Per refl book
 ‘his/Per’s book’

b. *Pre-nominal PDC*



To be clear, *sin* is in F, which is in the edge of the phase. As such, this possessive pronoun is reflexive. Note that under our phase and decomposition account, it is no coincidence that agreeing pronouns are reflexive and non-agreeing pronouns are non-reflexive. Finally, let us return to the two Binding scenarios from above, where one involves an overt Possessor as the DP-internal Bindee and the other is *pro*.

If the DP-internal Possessor is overt (as in the PDC), there is no *pro*. If there is a DP-external Possessor, then the relevant co-indexation results in a Condition C violation. In contrast, if the DP-internal Possessor is *pro*, the latter has to be licensed. Specifically, Norwegian *sin* will identify the reference of *pro* linguistically and *hans* with the help of discourse-salient factors. As proposed above, this has to do with the different decompositional structures of *sin* and *hans*.

To summarize then, while the overt Possessor does not have to be licensed, the possessive head licenses *pro* by identifying the semantic referent of the latter. This then derives the different “co-indexations” in (45) and (46). We now turn to a more detailed discussion of some other issues, which also provide evidence for the head status of certain possessive elements (albeit in a more tentative way).

³⁴ For German possessive pronouns such as *sein* ‘his’, we may assume that the head *s-* moves to F optionally. If the head moves, this will bring about a reflexive reading; if it stays in situ, this will result in a non-reflexive reading. (With the Possessor moved to Spec,FP, adjacency between *s-* and *ein* will hold with either option.)

4. More Arguments for a Head Inside Possessives

In the next four subsections, we discuss issues, each of which will, in its own right, contribute to the main point of this chapter. We will be concerned with the possessive relation and possessives as subjects, we return to DP-internal Binding, and we show that the extended projection of the possessive basically conforms to the Principle of Head Proximity.

4.1. Possessive Relation

So far, I have stayed agnostic about the semantic relation between the possessive and the possessum noun. I will label this relation ‘the possessive relation’. I will claim that this relation actually holds between the complement of the possessive head, the Possessor, and the possessum nominal. We will see that the possessive head, in a certain sense, plays a mediating role. I will take this role to indicate the head status of this possessive element. The distinction between non-theta and theta nouns will turn out to be of crucial importance.

It is well-known that possessives in combination with non-theta nouns can have an (almost) unlimited range of interpretations (Jackendoff 1977: 13, Williams 1982a: 283, for some restrictions, see Barker 1995: chap. 2). As Stockwell *et al.* (1973: pp. 678) and Anderson (1983-84: 3) point out, it seems clear that a simple HAVE-relation is not enough to account for the variety of readings. In contrast, possessives with deverbal nouns only allow a limited set of interpretations, namely those typically assigned by their corresponding verbs (Safir 1987, cf. also Haider 1988: 54; Dimitrova-Vulchanova & Giusti 1998: 353).

To illustrate, while *Peter* in *Peter’s car* may be the owner of the car, he could also be the person who mentioned a certain car, drove or washed it, etc. Interlocutors can refer to this car as *Peter’s* in conversation and, given the right context, there is no contradiction in uttering (51a). Such readings are impossible for (51b). For instance, (51b) cannot mean that Caesar told us a different version of the story of the conquest of Gaul than perhaps Peter did. However, it could mean that there were two different campaigns, one led by Caesar and the other by Peter. In keeping with the above discussion, the only interpretation possible is that of an agent with regard to *Cäsars* and that of a theme with *Gallien* ‘Gall’:

- (51) a. *Peters Auto gehört seiner Mutter.* (German)
Peter’s car belongs to his mother
‘Peter’s car belongs to his mother.’
b. *Cäsars Eroberung Galliens*
Caesar’s conquest of Gaul
‘Caesar’s conquest of Gaul’

Besides this interpretative difference, there is also a distributional one. As already illustrated above, the possessive can also be expressed by a *von*-phrase, which can follow and precede the non-theta possessum noun. Compare (52a) to (52b):

- (52) a. *Das Auto von Peter gehört seiner Mutter.*
the car of Peter belongs to his mother
‘Peter’s car belongs to his mother.’

- b. *Von Peter das Auto gehört seiner Mutter.*
 of Peter the car belongs to.his mother

This is different for theta nouns. Here, the preposition *von* ‘of’ can typically not be used with an agentive argument. Rather, German employs *durch* ‘by’ in these instances. Importantly, in contrast to the possessives above, the *durch*-phrase cannot precede the head noun:

- (53) a. *die langwierige Eroberung Galliens {durch/*von} Cäsar*
 the lengthy conquest of Gaul by / of Caesar
 ‘the lengthy conquest of Gaul by Caesar’
- b. *{?*durch/*von} Cäsar die langwierige Eroberung Galliens*
 by / of Caesar the lengthy conquest of Gaul

In an intuitive sense, arguments have to be “closer” to theta nouns than to non-theta nouns. To be more precise, the arguments in the former case must be inside the DP but arguments in the latter can be base-generated outside the DP proper. I propose that the differences in interpretation and distribution follow from the different head noun involved and how it combines with the possessive.³⁵

Focusing on the typical cases, we can observe that the possessive usually involves a proper name, which is a referring expression (type <e>). In fact, we argued that possessives involve Possessors and possessive heads. So let us assume that it is the actual Possessor that is of type <e>. Furthermore, we have claimed that the possessive head is a predicate, which takes the Possessor as an argument. In order to determine the semantic type of the possessive head, recall that the entire possessive is of type <e>. It seems plausible then that the possessive head is either semantically vacuous or it is a function from entities to entities (type <e,e>).³⁶ Below, we will see that the latter option is more desirable.

Continuing with theta nouns, let us assume that they are similar to their verbal counterparts in the way they combine with their arguments (i.e., by Functional Application). Recalling that possessives consist of possessive heads and their Possessor complements, we can represent the possessive relation for theta nouns as follows where the Possessor is the semantic argument of the possessive head and the resultant combination, the possessive, is the argument of the theta noun:

- (54) $\text{noun}_{\text{theta}}(\text{possessive head}(\text{Possessor}))$

It follows from these assumptions that the possessive cannot be base-generated outside of the DP and that the argument theta roles of deverbal head nouns are agent and theme.

Turning to the non-theta nouns, we pointed out above that these readings do not involve the traditional (verbal) theta roles such as agent and theme. Recalling that the possessive head is a mono-valent functor, I basically follow Szabolcsi (1994: 193) and Zimmermann (1991: 41) in

³⁵ This is in keeping with Grimshaw’s (1990) distinction between process and result nouns (for a convenient summary of Grimshaw’s work and a following critique, see Alexiadou 2001: pp. 10). As Tellier (1990) argues, process and result nouns are similar to relational nouns (e.g., *sister*) and non-relational/non-theta nouns (e.g., *book*).

³⁶ Recalling the (in-)definiteness spread discussed in section 3.4, it is clear that <e,e> cannot be the type of all possessive functions (as indefinite noun phrases are not of type <e>). As such, the function needs to be generalized to < α , α >.

suggesting that the possessive head assigns an unspecified theta-role to its complement, the Possessor. As such, possessive heads are not semantically vacuous. With theta nouns, the unspecified theta-role assigned by the possessive head is specified by the deverbal head noun as just discussed. In contrast, with non-theta nouns, it is contextually determined allowing a wide range of interpretations.³⁷ This specification of the theta-role of the Possessor is what I mean by establishing a possessive relation.

It is natural to assume that objects stand in a certain relation to the world containing them, in particular, to the human beings acting upon them. In order to capture the fairly free interpretation of the relation between the possessive and the possessum object, let us observe that non-theta nouns themselves do not assign theta roles. There are now two ways to proceed: either the possessive takes the possessive nominal as a semantic argument, (55a), or the relation between the two elements is less tight as indicated by the dash in (55b):³⁸

(55) a. possessive(*the* noun_{non-theta})

b. possessive – *the* noun_{non-theta}

Recalling that the possessive consists of a possessive predicate and a Possessor complement, the former option essentially makes the possessive head a bivalent functor but the latter does not. As such, the former option would make the semantic role of the possessive head even more direct.³⁹ There are at least two differences between the options in (55).

First, we know from above that the possessive can be base-generated quite far from the possessum nominal and a tight semantic relation as in (55a) would have to be “flexible” enough to accommodate that. This seems undesirable and unlikely. Second, if we were to assume a two-place possessive predicate more generally, then this might cause problems with theta-nouns. Specifically, the possessive predicate would take the non-theta nominal as one of its arguments (cf. (55a)) but the theta head noun itself would take FP as one of its arguments (cf. (54)). As both the predicate head and the (theta) noun would need the corresponding other element as an argument, this does not seem very promising.

To sum up this subsection, I proposed that the possessive head assigns an unspecified theta-role to the Possessor, its complement. This theta-role is then specified contextually (in case of a non-theta head noun) or linguistically (by a deverbal head noun). To avoid confusion, note that the assignment of the unspecified theta-role by the possessive head is different from the

³⁷ A reviewer wonders what the nature of an unspecified theta-role is. The current proposal could be understood in the context of Dowty (1991), who argues for thematic proto-roles. Simplified, thematic proto-roles are fuzzy, cluster concepts, defined by sets of verbal entailments, which themselves are independent of one another. Setting up an opposition between a Proto-Agent and a Proto-Patient, he suggests that arguments can differ in the degree to which they bear their respective role (which depends on the number of entailments and their relative ranking).

Building on this notion of non-discreteness, we could suggest that an unspecified theta-role is characterized by no entailment or a low-ranking one. (Barker & Dowty 1993 extend this proposal to relational nouns but, with the exception of footnote 5, do not discuss non-relational nouns such as *car*.)

³⁸ If possessives are indeed outside the “scope” of the determiner, low possessives must undergo LF raising. In Roehrs (2009a), it is proposed that determiners originate low in the noun phrase and move to DP. If we accept that, then we can avoid the assumption that LF raising takes place out of definite DPs; that is, we can suggest that the possessives just raise above one (of the low) position(s) of the determiner.

³⁹ Among others, this option has been formalized by Higginbotham (1983), who proposes that cases such as *John’s cat* are interpreted as [*the x: cat (x) & R (John, x)*], where R is a “relational demonstrative” in Higginbotham’s terms.

licencing of *pro* by the possessive head. In the former case, the unspecified theta-role is assigned to its complement, be it overt or *pro*; in the latter case, identifying the referent is only required for *pro*.

4.2. Possessives as Subjects of Noun Phrases

It is often suggested (e.g., Chomsky 1970, Haegeman 2004b) that possessives in noun phrases behave like subjects in clauses. Above, we already pointed out that unlike sentential subjects, possessives are, at least in principle, “optional” with regard to case and theta-role. We proposed that this optionality of the possessive subject is only apparent; that is, the Possessor is actually obligatory. This follows from the one-to-one relation between the possessive head and the Possessor. If the possessive head is present, so is the Possessor and *vice versa*. From this perspective, possessive subjects are obligatory after all and behave much in line with sentential subjects. Besides this first issue, there seems to be another point of contrast.

One of the hallmarks of subjecthood is that subjects agree in person, number, and gender with the finite verb:⁴⁰

- (56) a. Peter {goes/*go} to school.
b. Peter and Tom {go/*goes} to school.

If we make parallel assumptions for the noun phrase, we seem to find something else. Specifically, Possessors do not agree with their head nouns.⁴¹ Thus, while some patterns may be more common than others, a singular Possessor can combine with both a singular and plural head noun and a plural Possessor can too:

- (57) a. Peter’s car(s)
b. Peter and Tom’s car(s)

Again, this is surprising if Possessors are taken to be similar to subjects in the clause. However, if we interpret the possessive pronoun as the relevant head and the Possessor as its subject, then we do find the relevant restriction. To be precise, the Possessor has to agree in person, number, and gender with the possessive head (Krause 1999):

- (58) a. *Peter {sein(e)/*ihr(e)} Auto(s)*
Peter his / their car(s)
‘Peter’s car(s)’
b. *Peter und Tom {ihr(e)/*sein(e)} Auto(s)*
Peter and Tom their / his car(s)
‘Peter and Tom’s car(s)’

⁴⁰ While agreement in gender is admittedly rarer, it reveals itself in the Russian past tense.

⁴¹ This allows the option of the entire possessive agreeing with the head noun. This has been reported for Hungarian, among others.

It is worth mentioning that in Icelandic, non-nominative, that is, quirky subjects do not agree with the finite verb (or at least not fully, see Sigurðsson 2002: 720). As such, possessive subjects are semi-quirky: they have quirky case but do agree with their head.

To sum up, making the assumption that possessives involve extended projections, Possessors do behave like subjects under these assumptions. Consequently, the nominal domain is becoming more parallel to the sentential one.⁴² We return to the discussion of DP-internal Binding from section 3.3.

4.3. DP-internal Binding

I argued above that the possessive head, the pronoun, is neither the Binder nor Bindee. Rather, its complement, the overt or covert Possessor, is involved in the Binding relations. The question that arises now is how the Possessor can bind another element outside the FP if we take c-command as a necessary requirement for Binding. This can easily be illustrated with PDCs:

- (59) a. *bildet* [_{FP} *hans* *Per_i*] *av seg selv_i*
 picture-the his Per of refl
 ‘Per’s picture of himself’
- b. [_{FP} *Per_i sitt*] *bild* *av seg selv_i*
 Per refl picture of refl
 ‘Per’s picture of himself’

To repeat, it is clear that the Possessor cannot c-command out of FP. Continuing with the post-nominal PDC, there are two options now: first, we could assume that the entire FP is the Binder (for our purposes, the bearer of the index) and c-command would hold, (60a). However, it is not clear how to technically instantiate this (note, e.g., that the Possessor is not in a Spec-head relation with the possessive head and a mediating function of the latter is less plausible). As such, a syntactic account of Binding based on c-command is not straightforward for these cases. As a second option, we could suggest that the Possessor is the Binder after all and the possessive head has some mediating function – perhaps it forms a complex predicate with the head noun. This is illustrated in (60b):

- (60) a. *bildet* [_{FP} *hans* *Per*]_i *av seg selv_i*
- b. *bildet+hans* [*Per*]_i *av seg selv_i*

In contrast to the first option, this type of account would be more semantic in nature (see, e.g., Reinhart & Reuland 1993). In view of the above-mentioned issue with (60a), I suspect that the analysis in (60b) is on the right track (cf. Julien 2005a: 156). Note that in the latter case, it is crucial to assume that the possessive head is some type of predicate.

⁴² It should not be surprising to find other parallelisms between the two domains. For instance, Stockwell *et al.* (1973: 714) state that (ia) and (ib) may be related:

- (i) a. yesterday’s paper
 b. Yesterday saw the beginning of a new quarter at school.

- As proposed above, the noun phrase embeds the possessive, that is, its extended projection. Let us assume then that the head of the superordinate domain is the noun and that the head of the subordinate domain is the possessive pronoun. According to this principle, both heads prefer to be close to one another. This is clearly the case in (61) but not in (62). As such, these data conform to the principle. Note now that this preference principle does not extend to the grammaticality of (64a) and is silent about the ungrammatical case in (64b).⁴⁴

- I hasten to point out, though, that the distribution of (64a) is fairly rare. To speculate, then, one might suggest that the workings of this principle have, with a few exceptions, been grammaticalized.⁴⁵

5. An Open Issue

As already documented in section 2.1, the possessive pronoun can be sandwiched between a determiner and a head noun in earlier varieties of German, (65a). As already pointed out in **Chapter 2**, this is still, with some restrictions, possible in poetic or elevated German, (65b).⁴⁶

1994: 203). This could be instantiated as in Larson & Cho (1998), who propose that 's is the spell-out of THE+*to*, where the (incorporated) locative preposition *to* establishes the possessive relation. Some of these authors also draw a parallelism to adjectives in pre-nominal position, which are subject to the Head-Final Filter (e.g., Williams 1982b). Given our discussion of the possessive pronouns, I believe that this restriction also extends to the post-nominal possessive elements.

⁴⁴ Note that (64a-b) are not possible in German. Again, this follows from the different composite analysis of the German possessive pronouns.

⁴⁵ It seems clear that the distributions involving *sin* are more restricted than those of *hans*. While in the former the (overt) Possessor must precede the possessive head, this is not the case with the latter. This restriction invites the speculation that the two possessive heads select categorially different complements, which are subject to different restrictions on their distribution (cf. also Roehrs to appear for a similar point on demonstrative reinforcers).

⁴⁶ Unlike in Middle High German, an adjective and/or noun cannot follow, (ia). Furthermore, the definite article cannot be replaced by a demonstrative, (ib):

34

- (65) a. *der sîner snelheite er mohte sagen danc* (Middle High German)
 to.the his speed he could say thanks
 ‘He could thank his speed.’
 (from *Nibelungenlied*, adventure 34, stanza 23, line 2)
- b. *Du bist die meine.*
 you are the my
 ‘You are mine.’

Interestingly, although not entirely perfect, the Possessor can also be expressed overtly by inserting it in front of the definite article, (66a).⁴⁷ On the face of it, one could interpret this datum such that the Possessor and the possessive pronoun do not form a constituent (see Grohmann & Haegeman 2003: 54 for this conclusion on the basis of similar data in West Flemish). This would present a serious challenge to the current analysis. However, there are also some other interesting restrictions worth taking note of. For instance, similar to the PDC, there is also a person restriction here, (66b):

- (66) a. *?(?) Das ist dem Peter die Seine.*
 this is to.the Peter the his
 ‘This is Peter’s wife.’
- b. *Das ist (*mir) die Meine.*
 this is me the mine
 ‘This is my wife.’

With the above discussion in mind, I will offer an analysis that is compatible with our current assumptions.

First, recall from section 3.2 that *von*-possessives can be base-generated just above the DP and from section 2.3 that possessive elements of the first and second person are in the complement position of the possessive head. As such, they are in complementary distribution with a(nother) overt Possessor or *pro* inside FP. With the Possessor preceding the determiner in (66a), let us suppose then that the overt Possessor is base-generated just above DP and that FP contains *pro* as a Possessor when the possessive head is in the third person:

- (67) [_{XP} *dem Peter*_i [_{DP} *die* [_{FP} *pro*_i *Seine*] e_N]]

To assign an interpretation to this “free” Possessor, I assume that it is “reconstructed” into *pro* indicated here by subscripts (cf. **Chapter 3**; see also Haegeman’s 2003 discussion of *pro* as a resumptive pronoun in West Flemish). I assume that this option is available but subject to certain restrictions. Furthermore, I suggest that the dative case is due to a default mechanism, which

Considering these stylistic and syntactic restrictions, I assume that the distributional possibility in (65b) is part of an older grammar. This also means that the possessive pronoun is not a composite element in that grammar (for the discussion of some diachronic issues, see Demske 2001, Alexiadou 2004, and Wood 2007).

⁴⁷ Distributions involving *-s* or *von* ‘of’, be they before or after the possessive pronoun, are much more degraded. To save space, this is not shown here.

seems to be required independently for certain nominals (for the discussion of “loose” appositions in this respect, see Roehrs 2009b: 314).⁴⁸

6. Conclusion

In this final chapter, I have argued that a possessive consists of a possessive head and a Possessor phrase. Together these elements make up a PossP. In fact, I have argued that a possessive involves an extended projection. Among others, arguments for this claim were derived from movement of the possessive head and the Possessor inside the extended projection. It was further proposed that this complex possessive structure may move inside the matrix DP as a constituent.

Providing an alternative view to the standard account, I believe we have reached a number of interesting results. For instance, we provided numerous arguments that possessive pronouns have head-like properties. In fact, they seem to exhibit hybrid characteristics: they are similar to prepositions (movement of the PDC in Icelandic), to adjectives (case and theta-role assignment), and to demonstratives (decomposition and syntactic distribution). Crucially, all these elements have been independently argued to involve extended projections. I take these commonalities as strong confirmation of the main hypothesis.

Attempting to provide a homogenous account of possession, we had to gloss over a number of details. For instance, this chapter did not attempt to account in detail for the differences between the individual constructions, languages, or language families. On the one hand, this was done to keep the topic manageable and to enhance readability. On the other, this had to do with certain empirical gaps and uncertainties about theoretical choices. Also, the proposal involves a certain overlap in syntactic and semantic assumptions (e.g., with regard to definiteness and argument structure). I hope to return to some of these fascinating issues in the future.

References:

Chapter 1: The Structural Nature of Adjective Endings in German and some Consequences
Chapter 2: The Indefinite Article *ein*, the Singularity Numeral *EIN*, and Adjectival *eine*
Chapter 3: Split NPs
Chapter 4: Pronouns and Nouns in Clausal and Nominal Combinations
Chapter 5: Possessives as Extended Projections: Possessive Heads and Possessor Phrases

⁴⁸ The analysis in (67) might also offer an alternative proposal for the Possessive Raising Construction, which is often claimed to involve raising of the dative Possessor out of the DP. Note first that there is no possessive pronoun in the matrix DP, (ia), hence there is no *pro*, and as a consequence, there is no “reconstruction” of the free Possessor. However, the latter can be licensed by the theta-role from the matrix verbal predicate. One advantage would be that we would not have to assume movement out of a definite DP. Also, with the Possessor not originating inside the DP, we expect a second possessive and an indefinite article to be possible, (ia) (see also Krause 1999: 210, 214; Harbert 2007: 166). This is different for the PDC, (ib):

- (i) a. *Tim hat seinen Eltern {das/Marias/ein} Auto gewaschen.*
Tim has his parents the/ Mary’s/a car washed
‘Tim has washed the/Mary’s/a car for his parents.’
b. *Dem Peter {sein/*das/*Marias/*ein} Buch habe ich gelesen.*
the Peter his / the / Mary’s/ a book have I read
‘I have read Peter’s book.’

- Abney, Steven. 1987. *The English Noun Phrase in its Sentential Aspect*. Doctoral Dissertation, MIT.
- Alexiadou, Artemis. 2001. *Functional Structure in Nominals. Nominalization and ergativity*. Amsterdam: John Benjamins.
- Alexiadou, Artemis. 2004. On the development of possessive determiners: Consequences for DP structure. In Eric Fuß and Carola Trips (eds.) *Diachronic clues to synchronic grammar*, pp. 31-58. Amsterdam: John Benjamins.
- Alexiadou, Artemis. 2005. Possessors and (in)definiteness. *Lingua* 115: 787-819.
- Alexiadou, Artemis, Liliane Haegeman, and Melita Stavrou. 2007. *Noun Phrase in the Generative Perspective*. Berlin: Mouton de Gruyter.
- Alexiadou, Artemis & Chris Wilder. 1998. Adjectival Modification and Multiple Determiners. In Artemis Alexiadou & Chris Wilder (eds.) *Possessors, Predicates and Movement in the Determiner Phrase*, pp. 303-332, Amsterdam: John Benjamins Publishing Company.
- Anderson, Mona. 1983-84. Prenominal Genitive NPs. *The Linguistic Review* 3: 1-24.
- Baker, Mark. 1988. *Incorporation: A theory of grammatical function changing*. Chicago: University of Chicago Press.
- Barker, Chris. 1995. *Possessive Descriptions*. Stanford, CA: CSLI Publications.
- Barker, Chris. 1997. Partitives, double genitives, and anti-uniqueness. *Natural Language and Linguistic Theory* 16: 679-717.
- Barker, Chris & David Dowty. 1993. Non-verbal Thematic Proto-Roles. In Amy J. Schafer (ed.) *Proceedings of NELS 23*, pp. 49-62, Amherst: GSLA.
- Behaghel, Otto. 1923. *Deutsche Syntax*. (vol.1) Heidelberg: Carl Winter's Universitätsbuchhandlung.
- Bošković, Željko. 1997. *The syntax of Nonfinite Complementation. An Economy Approach*. MIT Press, Cambridge.
- Bošković, Željko & Howard Lasnik. 2003. On the Distribution of Null Complementizers. *Linguistic Inquiry* 34(4): 527-546.
- Bowers, John. 1988. Extended X-Bar Theory, the ECP, and the Left Branch Condition. In *Proceedings of the West Coast Conference on Formal Linguistics 7*: 47-62. Stanford Linguistics Association, Stanford University.
- Cardinaletti, Anna. 1998. On the Deficient/Strong Opposition in Possessive Systems. In Artemis Alexiadou & Chris Wilder (eds.) *Possessors, Predicates and Movement in the Determiner Phrase*, pp. 17-53, Amsterdam: John Benjamins Publishing Company.
- Cardinaletti, Anna & Michal Starke. 1999. The typology of structural deficiency: A case study of the three classes of pronouns. In Henk van Riemsdijk (ed.) *Clitics in the Languages of Europe*, pp. 145-233. New York: Mouton de Gruyter.
- Chomsky, Noam. 1970. Remarks on nominalization. In R. Jacobson & P. Rosenbaum (eds.) *Readings in English Transformational Grammar*, pp. 184-221. Waltham, MA, Ginn & Co.
- Chomsky, Noam. 1981. *Lectures on Government and Binding*. Dordrecht: Foris.
- Chomsky, Noam. 1986. *Knowledge of Language*. New York: Praeger.
- Chomsky, Noam. 1995. *Minimalist Program*. MIT Press, Cambridge
- Chomsky, Noam. 2001. Derivation by Phase. In Michael Kenstowicz (ed.) *Ken Hale. A Life in Language*, pp. 1-52. Cambridge, Mass.: MIT Press.
- Dal, Ingerid. 1971. *Untersuchungen zur germanischen und deutschen Sprachgeschichte*. Oslo: Universitetsforlaget.

- Delsing, Lars-Olof. 1993. *The Internal Structure of Noun Phrases in the Scandinavian Languages. A Comparative Study*. Doctoral Dissertation, University of Lund.
- Delsing, Lars-Olof. 1998. Possession in Germanic. In Artemis Alexiadou & Chris Wilder (eds.) *Possessors, Predicates and Movement in the Determiner Phrase*, pp. 87-108, Amsterdam: John Benjamins Publishing Company.
- Dikken, Marcel den. 1997. Introduction. The syntax of possession and the verb 'have'. *Lingua* 101: 129-150.
- Dikken, Marcel den. 1998. Predicate Inversion in DP. In Artemis Alexiadou & Chris Wilder (eds.) *Possessors, Predicates and Movement in the Determiner Phrase*, pp. 177-214, Amsterdam: John Benjamins Publishing Company.
- Dikken, Marcel den. 2006. *Relators and Linkers. The Syntax of Predication, Predicate Inversion, and Copulas*. Cambridge: MIT Press.
- Dimitrova-Vulchanova Mila & Giuliana Giusti. 1998. Fragments of Balkan Nominal Structure. In Artemis Alexiadou & Chris Wilder (eds.) *Possessors, Predicates and Movement in the Determiner Phrase*, pp. 333-360, Amsterdam: John Benjamins Publishing Company.
- Dobrovie-Sorin, Carmen. 2003. From DPs to NPs: A Bare Phrase Structure Account of Genitives. In Martin Coene & Yves D'hulst (eds.) *From NP to DP. Volume 2: The Expression of Possession in Noun Phrases*, pp. 75-120, Amsterdam: John Benjamins Publishing Company.
- Duden. 1995. *Die Grammatik*. vol. 4. Dudenverlag.
- Duffield, Nigel. 1996. On structural invariance and lexical diversity in VSO languages: arguments from Irish noun phrases. In Robert D. Borsley and Ian Roberts (eds.) *The Syntax of the Celtic Languages. A comparative Perspective*, pp. 314-40, New York: Cambridge University Press.
- Eikel, Fred, JR. 1967. New Braunfels German: Part III. *American Speech* 42 (2): 83-104.
- Fiva, Toril. 1985. NP-Internal Chains in Norwegian. *Nordic Journal of Linguistics* 8 (1): 25-47.
- Fortmann, Christian. 1996. *Konstituentenbewegung in der DP-Struktur. Zur funktionalen Analyse der Nominalphrase im Deutschen*. Linguistische Arbeiten 347. Tübingen: Niemeyer.
- Fukui, Naoki & Margaret Speas. 1986. Specifiers and Projection. *MIT Working Papers in Linguistics* 8: 128-72.
- Gavruseva, Elena. 2000. On the syntax of possessor extraction. *Lingua* 110: 743-772.
- Giorgi, Alessandra & Giuseppe Longobardi. 1991. *The Syntax of Noun Phrases. Configuration, Parameters and Empty Categories*. Cambridge: Cambridge University Press.
- Giusti, Giuliana. 1997. The categorial status of determiners. In Liliane Haegeman (ed.) *The New Comparative Syntax*, pp. 95-123. London and New York: Longman.
- Giusti, Giuliana. 2002. The Functional Structure of Noun Phrases. A Bare Phrase Structure Approach. In Guglielmo Cinque (ed.) *Functional Structure in DP and IP: The Cartography of Syntactic Structures*. vol.1, pp. 54-90. Oxford: Oxford University Press.
- Grimshaw, Jane. 1990. *Argument Structure*. Cambridge, MA: MIT Press.
- Grimshaw, Jane. 1991. Extended Projections. Ms., Brandeis University.
- Grohmann, Kleanthes K. & Liliane Haegeman. 2003. Resuming Reflexives. *Proceedings of the 19th Scandinavian Conference on Linguistics*. Nordlyd 31(1): 46-62.
- Haegeman, Liliane. 2003. The External Possessor Construction in West Flemish. In Martin Coene & Yves D'hulst (eds.) *From NP to DP. Volume 2: The Expression of Possession in Noun Phrases*, pp. 221-256, Amsterdam: John Benjamins Publishing Company.

- Haegeman, Liliane. 2004a. A DP-internal Anaphor Agreement Effect. *Linguistic Inquiry* 35(4): 704-712.
- Haegeman, Liliane. 2004b. DP-Periphery and Clausal Periphery: Possessor Doubling in West Flemish. In David Adger, Cécile de Cat & George Tsoulas (eds.) *Peripheries. Syntactic Edges and their Effects*, pp. 211-240. Dordrecht: Kluwer.
- Haider, Hubert. 1988. Die Structure der deutschen NP. *Zeitschrift für Sprachwissenschaft* 7 (1): 32-59.
- Harbert, Wayne. 2007. *The Germanic Languages*. Cambridge: Cambridge University Press.
- Haspelmath, Martin. 1999. Explaining article-possessor complementarity: economic motivation in noun phrase syntax. *Language* 75(2): 227-243.
- Haugen, Einar. 1976. *The Scandinavian Languages: an introduction to their history*. London: Faber & Faber.
- Hellan, Lars. 1986. The Headedness of NPs in Norwegian. In Pieter Muysken & Henk van Riemsdijk (eds.) *Features and Projections*, pp. 89-122, Dordrecht: Foris Publications.
- Hestvik, Arild. 1992. LF Movement of Pronouns and Antisubject Orientation. *Linguistic Inquiry* 23 (4): 557-594.
- Holmberg, Anders & Jan Rijkhoff. 1998. Word order in the Germanic languages. In Anna Siewierska (ed.) *Constituent Structure in the languages of Europe*, pp. 75-104. Berlin: Mouton de Gruyter.
- Holmberg, Anders & Görel Sandström. 1995. Scandinavian Possessive Constructions from a Northern Swedish Viewpoint. *Working Papers in Scandinavian Syntax* 55: 29-49.
- Jackendoff, Ray S. 1977. *X' Syntax: A Study of Phrase Structure*. Cambridge: MIT Press.
- Jacobs, Neil G., Ellen F. Prince and Johan van der Auwera. 1994. Yiddish. In Ekkehard König & Johan van der Auwera (eds.) *The Germanic Languages*, pp. 388-419. New York: Routledge.
- Janda, Richard D. 1980. On the Decline of Declensional Systems: The Overall Loss of OE Nominal Case Inflections and the ME Reanalysis of *-ES* as *HIS*. Elizabeth Closs Traugott, Rebecca Labrum & Susan Shepherd (eds.) *Papers from the 4th International Conference on Historical Linguistics*, pp. 245-252, Amsterdam: John Benjamins B.V.
- Julien, Marit. 2002. Determiners and Word Order in Scandinavian DPs. *Studia Linguistica* 56: 264-315.
- Julien, Marit. 2005a. *Nominal Phrases from a Scandinavian Perspective*. Amsterdam: John Benjamins.
- Julien, Marit. 2005b. Possessor licensing, definiteness and case in Scandinavian. In Marcel den Dikken & Christina Tortora (eds.) *The Function of Function Words and Functional Categories*, pp. 217-49. Amsterdam: John Benjamins Publishing Company.
- Koptjevskaja-Tamm, Maria. 2003a. Possessive noun phrases in the languages of Europe. In Frans Plank (ed.) *Noun Phrase Structure in the Languages of Europe* [Empirical Approaches to Language Typology, EUROTyp 20-7], pp. 621-722, Berlin: Mouton de Gruyter.
- Koptjevskaja-Tamm, Maria. 2003b. Action nominal constructions in the languages of Europe. In Frans Plank (ed.) *Noun Phrase Structure in the Languages of Europe* [Empirical Approaches to Language Typology, EUROTyp 20-7], pp. 723-759, Berlin: Mouton de Gruyter.
- Krause, Cornelia. 1999. Two Notes on Prenominal Possessors in German. *MIT Working Papers in Linguistics* 33: 191-217.

- Larson, Richard K. & Sungeun Cho. 1988. *Temporal Modification and the DP Hypothesis*. Paper presented at the UCLA Tense Workshop.
- Lasnik, Howard. 1981. Restricting the Theory of Transformations: A Case Study. In Norbert Hornstein & David Lightfoot (eds) *Explanations in linguistics*, pp. 152-173. London: Longman.
- Lebeaux, David. 1983. A distributional difference between reciprocals and reflexives. *Linguistic Inquiry* 14, 723-30.
- Lee-Schoenfeld, Vera. 2006. German possessor datives: raised *and* affected. *Journal of Comparative Germanic Linguistics* 9: 101-142.
- Leu, Thomas. 2008. The Internal Syntax of Determiners. Doctoral Dissertation, New York University.
- Lindauer, Thomas. 1995. *Genitivattribute. Eine morphologische Untersuchung zum deutschen DP/NP-System*. Tübingen: Max Niemeyer Verlag.
- Lindauer, Thomas. 1998. Attributive Genitive Constructions in German. In Artemis Alexiadou & Chris Wilder (eds.) *Possessors, Predicates and Movement in the Determiner Phrase*, pp. 109-140, Amsterdam: John Benjamins Publishing Company.
- Longobardi, Giuseppe, 1994: Reference and Proper Names: A Theory of N-Movement in Syntax and Logical Form. *Linguistic Inquiry* 25 (4), 609-665.
- Lyons, Christopher, 1999: *Definiteness*. Cambridge University Press.
- Manzelli, Gianguido. 1980. Possessive adnominal modifiers. In Johannes Bechert, Giuliano Bernini & Claude Buridant (eds.) *Toward a typology of European languages*. (Empirical Approaches to Language Typology 8.), pp. 63-111, Berlin: Mouton de Gruyter.
- Olsen, Susan. 1989. 'Das Possessivum: Pronomen, Determinans oder Adjektiv?' *Linguistische Berichte* 120: 133-153.
- Paul, Hermann, Peter Wiehl, and Siegfried Grosse. 1989. *Mittelhochdeutsche Grammatik*. (23rd ed.). Tübingen: Max Niemeyer Verlag.
- Picallo, M. Carme. 1994. Catalan Possessive Pronouns: the Avoid Pronoun Principle revisited. *Natural Language and Linguistic Theory* 12: 259-299.
- Postal, Paul M. (1966). On the so-called pronouns in English, in F. Dinneen (ed.) *Nineteenth Monograph on Language and Linguistics*, Georgetown University Press, Washington, D.C., pp. 201-24.
- Ramat, Paolo: 1986, 'The Germanic Possessive Type "dem Vater sein Haus"', In Kastovsky, Dieter & Aleksander Szwedek (eds.), *Linguistics across historical and geographical boundaries*. pp. 579-590. Berlin: Mouton de Gruyter.
- Reinhart, Tanya & Eric Reuland. 1993. Reflexivity. *Linguistic Inquiry* 24: 657-720.
- Richards, Norvin. 1997. Competition and disjoint reference. *Linguistic Inquiry* 28 (1): 178-187.
- Riemsdijk, Henk van. 1983. The Case of German Adjectives. In Frank Heny & Barry Richards (eds.) *Linguistic Categories: Auxiliaries and Related Puzzles*, pp. 223-252. Dordrecht: Reidel.
- Rijkhoff, Jan. 1986. Word order universals revisited: the principle of head proximity. *Belgian Journal of Linguistics* 1: 95-125.
- Rijkhoff, Jan. 2002. *The Noun Phrase*. Oxford University Press.
- Rizzi, Luigi. 1990. *Relativized Minimality*. Cambridge: MIT Press.
- Roehrs, Dorian. 2005a. Pronouns are Determiners After All. In Marcel den Dikken & Christina Tortora (eds.) *The Function of Function Words and Functional Categories*, pp. 251-285. Amsterdam: John Benjamins.

- Roehrs, Dorian. 2005b. Possessives Consists of Heads and Complements: Some Notes. In Dorian Roehrs, Ock-Hwan Kim & Yoshihisa Kitagawa (eds.) *Syntax and Beyond. Indiana University Working Papers in Linguistics* 5, pp. 117-247. Bloomington: IULC Publications.
- Roehrs, Dorian. 2009a. *Demonstratives and definite articles as nominal auxiliaries*. Amsterdam: John Benjamins.
- Roehrs, Dorian. 2009b. Inflectional Parallelism with German Adjectives. *Interdisciplinary Journal for Germanic Linguistics and Semiotic Analysis* 14 (2): 289-326
- Roehrs, Dorian. 2010. Syntactic vs. Morphological Decomposition of Demonstrative Stems. Paper presented at the Germanic Linguistics Annual Conference 16 (University of Wisconsin-Milwaukee).
- Roehrs, Dorian. to appear. Demonstrative-Reinforcer Constructions. *The Journal of Comparative Germanic Linguistics* 13.
- Roehrs, Dorian & Michael Putnam. 2009. Complex Demonstratives in Contemporary Germanic Languages. Ms., University of North Texas and Carson-Newman College.
- Roehrs, Dorian & Rex A. Sprouse. 2004. The three genitival declensions of proper names in Modern Standard German: Some morphosyntactic nuts. Paper presented at the 2004 Berkeley Germanic Linguistics Roundtable (University of California, Berkeley).
- Safir, Ken. 1987. The Syntactic Projection of Lexical Thematic Structure. *Natural Language & Linguistic Theory* 5: 561-601.
- Santelmann, Lynn: 1993, The Distribution of Double Determiners in Swedish: Den Support in D⁰. *Studia Linguistica* 47 (2), 154-176.
- Schutter, Georges de. 1994. Dutch. In König, Ekkehard and Johan van der Auwera (eds.) *The Germanic Languages*, pp. 439-477. New York: Routledge.
- Sigurðsson, Halldór Ármann. 2002. To be an Oblique Subject: Russian vs. Icelandic. *Natural Language and Linguistic Theory* 20: 691-724.
- Stockwell, Robert P., Paul Schachter & Barbara Hall Partee. 1973. *The Major Syntactic Structures of English*. New York: Holt, Rinehart and Winston, Inc.
- Svenonius, Peter: 1993, Selection, Adjunction, and Concord in the DP. *Studia Linguistica* 47 (2), 198-220.
- Szabolsci, Anna, 1983, 'The Possessor that Ran Away from Home.' *The Linguistic Review* 3: 89-102.
- Szabolsci, Anna. 1994. The Noun Phrase. In Ferenc Kiefer & Katalin É. Kiss (eds.) *Syntax and Semantics* 27. *The Syntactic Structure of Hungarian*, pp. 179-274, San Diego: Academic Press.
- Taraldsen, Knut Tarald. 1990: D-projections and N-projections in Norwegian. In Joan Mascaró & Marina Nespór (eds.) *Grammar in Progress. Glow Essays for Henk van Riemsdijk*. pp. 419-431, Dordrecht: Foris Publications.
- Tellier, Christine. 1990. Underived nominals and the Projection Principle: Inherent possessors. In Juli Carter, Rose-Marie Déchaine, Bill Philip & Tim Sherer (eds) *Proceedings of NELS 20* (Vol 2), pp. 472-486. Amherst: University of Massachusetts, GLSA.
- Valois, Daniel. 1991. *The Internal Syntax of DP*. Doctoral Dissertation, University of California, Los Angeles.
- Vangsnes, Øystein Alexander. 1999. *The identification of functional architecture*. Doctoral Dissertation, University of Bergen.

- Vangsnes, Øystein Alexander. 2004. Rolling up the Scandinavian Noun Phrase, Paper presented at the 27th GLOW Colloquium in Thessaloniki, Greece.
- Verhaar, John W. M. 1997. Head-marked possessive phrases in Dutch. *Leuven Contributions in Linguistics and Philology* 86(1-2): 89-108.
- Wessén, Elias. 1970. *Schwedische Sprachgeschichte*. (vol. 3) Berlin: Walter de Gruyter & Co.
- Williams, Edwin S. 1982a. 'The NP Cycle.' *Linguistic Inquiry* 13 (2): 277-295.
- Williams, Edwin S. 1982b. Another Argument that Passive is Transformational. *Linguistic Inquiry* 13(1): 160-3.
- Wood, Johanna L. 2007. Demonstratives and possessives. In Elisabeth Stark, Elisabeth Leiss, and Werner Abraham (eds) *Nominal determination. Typology, context constraints, and historical emergence*, pp. 339-361. Amsterdam: John Benjamins.
- Woolford, Ellen. 2006. Lexical Case, Inherent Case, and Argument Structure. *Linguistic Inquiry* 37 (1): 111-130.
- Zamparelli, Roberto. 1998. A Theory of Kinds, Partitives and of/z Possessives. In Artemis Alexiadou & Chris Wilder (eds.) *Possessors, Predicates and Movement in the Determiner Phrase*, pp. 259-301. Amsterdam: John Benjamins Publishing Company.
- Zimmermann, Ilse. 1991. The "Subject" in Noun Phrases: Its Syntax and Semantics. In Ilse Zimmermann (ed.) *Syntax und Semantik der Substantivgruppe XXXIII*, pp. 33-68. Berlin: Akademie-Verlag.
- Zribi-Hertz, Anne. 2003. On the Asymmetrical but Regular Properties of French Possessive DPs. In Martin Coene & Yves D'hulst (eds.) *From NP to DP. Volume 2: The Expression of Possession in Noun Phrases*, pp. 141-163, Amsterdam: John Benjamins Publishing Company.