

# Splitting the Nominal Left Periphery into DP and TopP: Two Pre-adjectival Positions for Possessives in German<sup>1</sup>

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## 1. Introduction

For the Bulgarian example in (1a), Giusti (1996: 125) proposes the basic structure in (1b), where the preposition and possessor *na Ivan* have moved to the Topicalization Phrase (TopP), often also called Left Periphery Phrase (Giusti & Iovino 2013):

- (1) a. [ *na Ivan* ] *edna nova kniga* (Bulgarian)  
to Ivan one new book  
'a new book of Ivan's'  
b. [ TopP [ ... [ DP ] ] ]

Giusti tentatively suggests that the Bulgarian structure and derivation might account for the doubling effect in (2a), where a dative possessor (*dem Peter*) occurs with a possessive pronoun (*sein*). Fleshing out this idea in slightly different ways for Norwegian vs. West Flemish, Grohmann & Haegeman (2003) propose that the possessor moves to the left periphery leaving behind a resumptive pronoun. The presence of the latter is proposed to be caused by anti-local movement and is the result of Copy Spell-out. For the German example in (2a), this derivation is schematized in (2b).

- (2) a. *dem Peter sein Auto* (German)  
the-DAT Peter his car  
'Peter's car'  
b. [ *dem Peter*<sub>i</sub> ResPron<sub>i</sub> [ *Auto* ] ]  
↓  
*sein*

I will refer to the head noun *Auto* as POSSESSUM and to the possessive *dem Peter sein* as POSSESSOR DOUBLING (PD). These two papers do not discuss a construction in German that is similar to Bulgarian, which is, at least in German, ambiguous in interpretation, (3a). I will label this *VON*-POSSESSIVE. Let me point out already here that *von*-possessives may both precede and, more typically, follow the head noun. In both positions, it has the same range of interpretations:<sup>2</sup>

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<sup>2</sup> Many German dialects tolerate a definite article before proper names (*der Peter* 'Peter'), an element often referred to as proprial article. Note also that some dialects only seem to allow inalienable head nouns like *Bruder* 'brother' in (3a).

- (3) a. *vom Peter das Auto*  
of.the Peter the car  
‘Peter’s car’  
‘the car from Peter’  
b. *das Auto vom Peter*  
the car of.the Peter  
‘Peter’s car’  
‘the car from Peter’

Here I focus on the pre-nominal *von*-possessive in (3a), which is much less often discussed in the literature.

I will argue that there are two pre-adjectival positions for possessives in German. I will call them Spec,DP and Spec,TopP. Providing a comparison of (2a) and (3a), I will propose that the lower position (Spec,DP) is occupied by the PD (i.e., *dem Peter sein*) in (2a). The higher position in the left periphery (Spec,TopP) is taken by the *von*-possessive in (3a). If tenable, this argues that the DP-level is split in German: DP and TopP. To sharpen the discussion, this paper also discusses a third possessive construction. Usually labeled SAXON GENITIVES (SG), cases like *Peters* in as *Peters Auto* ‘Peter’s car’ are argued to be a morpho-syntactic variant of the PD where ‘s is taken to be an allomorph of the “doubling” pronoun *sein* in (2a).

The paper is organized as follows. Section 2 shows that while there are good reasons to believe that the PD is related to *von*-possessives, there are also some serious issues. Section 3 argues that the PD has actually more features in common with the SG and both of these stand in opposition to *von*-possessives. In section 4, I propose that the PD and the SG are located in Spec,DP but *von*-possessives are housed in the higher Spec,TopP. Providing more evidence for this structural difference, section 4 then makes a uniform proposal for the inner structure of all three types of possessives. Differences only hold on the surface and are accounted for by movement of the possessor and differences in the spell-out of a terminal head. Section 5 provides one piece of evidence that indicates that Spec,TopP might be a base-generated position. The conclusion closes the paper.

## 2. Relating the PD to *von*-possessives

This section shows that while the PD appears to be relatable to *von*-possessives, there are also a number of issues with such a conjecture.

### 2.1. Interpretations, Stress Patterns, and Doublings

At first blush, it is appealing to relate the PD in (2a) to the pre-nominal *von*-possessive in (3a). Like the PD and its possesum, the *von*-possessive also forms a constituent with the following nominal (Fortmann 1996: 118). This point can be made with both matrix and embedded clauses where the entire nominal may surface in Spec,CP, (4a-b), and with coordination, (4c):

- (4) a. [*Vom Peter das Auto*] *habe ich nicht gesehen.*  
of.the-DAT Peter the car have I not seen

- b. *Was sagst du [von wem den Bruder] er angerufen hat?*  
 what say you of whom the brother he called has
- c. *Ich habe [von Peter die Schwester] und [von Maria den Bruder] gesehen.*  
 I have of Peter the sister and of Mary the brother seen

Furthermore, in both cases, a dative possessor precedes a determiner element, *sein* in (2a) and *das* in (3a). Moreover, the dative determiner of the possessor can also be left out with (Northern) German tolerating proprial articles to be optionally left out, (5). Besides these similarities, there are also some differences between the PD and the *von*-possessive. As briefly discussed at the end of this subsection, these can easily be derived allowing us to maintain the claim that the PD and the *von*-possessive are relatable.

A first difference can be observed in interpretative possibilities. In (5a) the possessor and the possessive pronoun are co-referential indicated here by the same indexation. Together, they are obligatorily interpreted as possessives (in the broad sense) in relation to the head noun. However, with the definite article before the head noun in (3a) replaced by a possessive pronominal, (5b) yields a different indexation where *von Peter* is interpreted as origin. In very colloquial registers, (5b) can, for some speakers, also involve co-reference of the *von*-phrase and the possessive pronoun resulting in a possessive reading:

- (5) a. *Peter<sub>i</sub> sein<sub>i/\*k</sub> Auto*  
       ‘Peter’s car’
- b. *von Peter<sub>i</sub> sein<sub>k/%i</sub> Auto*  
       ‘his car from Peter’  
       ‘%Peter’s car’

Second, restricting our attention to the possessive elements, the possessor and the possessive pronoun, this difference in interpretation between (5a) and (5b) is also reflected by different possible stress patterns. While the possessor can be contrastively focused in (6a) and (7a), a difference emerges with regard to the intervening possessive pronoun: whereas (6a) is more natural than (6b) (cf. Verhaar 1997: 106 on Dutch), no such difference holds for (7a) vs. (7b) (capitalization indicates stress):

- (6) a. *Nein, ich meine PETER sein Handy, nicht MARIA ihr Handy.*  
       no I mean Peter his mobile not Maria her mobile
- b. ?? *Nein, ich meine Peter SEIN Handy, nicht Maria IHR Handy.*  
       no I mean Peter his mobile not Maria her mobile

- (7) [Context: one person has two mobile phones from two different people]
- a. *Nein, ich meine von PETER dein Handy, nicht von MARIA dein Handy.*  
       no I mean from Peter your mobile not from Maria your mobile
- [Context: two people have each one mobile phone from Peter]
- b. *Nein, ich meine von Peter DEIN Handy, nicht von Peter IHR Handy.*  
       no I mean from Peter your mobile not from Peter her mobile

As for the third difference, it is important to point out that there are also other types of PP possible in pre-determiner position: locational, (8a-b), directional, (8c), and temporal ones, (8d). Crucially, neither the *von*-phrases in (7) nor the PPs in (8) involve a doubled element:

- (8) a. [Aus Spanien das Obst] schmeckt mir besonders gut.  
           from Spain the fruit taste me especially good  
       b. [Aus Italien der Wein] ist nicht so teuer.  
           from Italy the wine is not so expensive  
       c. [Nach Hamburg der Zug] hatte keine Verspätung.  
           to Hamburg the train was not delayed  
       d. [Nach Ostern die Woche] ist besser.  
           after Easter the week is better.

These differences in interpretation, stress patterns, and doublings between (2a) and (3a) follow on the assumption that the moved DP in (2a) leaves behind a resumptive pronoun but the *von*-possessive in (3a) does not (in section 4.1, we will see that the element following the *von*-possessive can be different types of determiners suggesting that it is quite unlikely that this is a resumptive pronoun). It appears then as if the proposal by Grohmann & Haegeman in (2b) for the PD in (2a) is tenable and both the PD and the *von*-possessives are relatable.

## 2.2. Some Issues

Interpreting the possessive pronoun in (2a) as a resumptive pronoun due to Copy Spell-out also raises some questions. I will mention five here.

First, note that the doubling pronoun agrees in case with the possessum head noun rather than with the possessor. The possessor is in the dative in (9a-b) but the possessive pronoun is in the nominative in (9a) but in the accusative in (9b) depending on the grammatical context the larger DP appears in:

- (9) a. Dem Peter sein Wagen ist klein.  
           the-DAT Peter his-NOM car is small  
       b. Dem Peter seinen Wagen habe ich gesehen.  
           the-DAT Peter his-ACC car have I seen

However, on Copy Spell-out, two different morphological cases seem unexpected.<sup>3</sup>

Second, it is clear that the possessive pronoun cannot be left out or replaced by another element:

- (10) \* (dem) Peter (der) Wagen  
           the Peter the car

This means that the possessor *must* undergo movement. For Grohmann & Haegeman (2003), the possessor moves to subject position. In pre-nominal position, the case of the possessor in German is dative (Krause 1999: pp. 192). Consider the PD in (11a). As for the SG, case is not

<sup>3</sup> Note though that this does not appear to be an insurmountable problem (for a possible solution, see section 4.1).

(11) a. *dem Peter sein Auto*  
the-DAT Peter his car  
b. *der froys oyto* (Yiddish)  
the-DAT woman's car

Third, Grohmann & Haegeman (2003: 56) discuss an example from West Flemish, where there are two instances of movement within the same domain marked by different underlining in (12): movement within the agreement domain is marked by a double line and movement within the discourse information domain by a single line. Crucially, one of these instances is actually spelled out by *two* elements (*den dienen*):

- Fourth, possessive pronouns exist without (overt) possessors. For cases like (13), Grohmann & Haegeman (2003: 53) assume the presence of *pro*. Importantly though, *pro* and the

(i)

a.	<i>Herr-n</i>	<i>Schmidts Rede</i>
	mister-DAT	Schmidt's speech
b.	<i>vom</i>	<i>Peter das Auto</i>
	of.the-DAT	Peter the car
c.	<i>beim</i>	<i>Peter im Auto</i>
	at.the-DAT	Peter in.the car
		'in Peter's car'

possessive pronoun are not related by movement. Put differently, the possessive pronoun in these instances is not a resumptive pronoun:

- (13) [ *pro sein* [ *Auto* ] ]  
           his     car

However, as far as I know, the properties of this possessive pronoun and the resumptive pronoun above seem to be very similar (if not identical). This becomes an accidental fact on the analysis of Copy Spell-out.

As a final issue, one may wonder how Copy Spell-out relates to post-nominal possessives in Norwegian. There are two cases to consider: *hans* in (14a) and *sin* in (14b):

- (14) a.     *bil-en hans Per*           (Norwegian)  
               car-the his    Per  
               ‘Per’s car’  
       b.     *bil-en sin*  
               car-the his  
               ‘his car’

There are numerous arguments that *hans* in (14a) is not a proprial article (see Roehrs 2013 and references cited therein). Furthermore, as *hans* precedes the possessor, it cannot be a resumptive pronoun either.<sup>5</sup> The question that arises then is how this possessive pronoun can be accounted for?<sup>6</sup>

Turning to post-nominal *sin* in (14b), recall that *sin* can also precede the head noun. These two options are shown in (15a) and (16a). Let us assume that pre- and post-nominal *sin* are derivationally related. There are two options. As a first option, one could assume that the pronoun is base-generated above the head noun. This means that there is “optional” movement of the head noun to account for the pre- and post-nominal position of the pronoun. Compare (15a) and its derivation in (15b) to (16a), which involves head movement as illustrated in (16b).<sup>7</sup>

- (15) a.     *sin bil*  
               his car  
       b.     [ *pro<sub>i</sub> sin<sub>i</sub>* [ *bil* ] ]  
  
 (16) a.     *bil-en sin*  
               car-the his  
       b.     [ *bil<sub>k</sub>-en pro<sub>i</sub> sin<sub>i</sub>* [ *t<sub>k</sub>* ] ]

<sup>5</sup> Like with pre-nominal *sin*, the possessor does not have to be present here:

(i)     *bil-en hans*  
           car-the his

<sup>6</sup> Considering the two surface structures, (14a) seems to be the mirror image of the PD (for an analysis based on this interpretation, see Roehrs 2013).

<sup>7</sup> Note that this movement of the head noun cannot be very high as adjectives still precede the displaced head noun.

Turning to the more complicated case where the presence of an overt possessor yields the PD, one can observe that the possessor *Per* cannot precede the post-nominal possessive pronoun, either directly as in (17a) or with intervening material present as in (18a):

- (17) a. \* *bil-en Per sin*  
car-the Per his  
b. [ *bil<sub>k</sub>-en Per<sub>i</sub> sin<sub>i</sub> [ t<sub>k</sub> ] ]*
- (18) a. \* *Per bil(-en) sin*  
Per car-the his  
b. [ *Per<sub>i</sub> bil<sub>k</sub>-en t<sub>i</sub> sin<sub>i</sub> [ t<sub>k</sub> ] ]*

Comparing the derivations in (16b) to (17b) and (18b), it appears that the head noun can cross *pro*, (16b), but not *Per*, (17b), or *Per*'s trace, (18b). It is not clear to me from what this difference follows.

As a second option, one could assume that the possessive pronoun is base-generated below the head noun. For post-nominal pronouns, one could propose that they are either in situ, (19a), or that they have moved to an intermediate position from one domain to another, as schematically indicated in (19b). As to pre-nominal possessive pronouns, they must have moved from one domain to another, (19c). Note that movement between two domains immediately rules out two (or more) copies of the possessive pronoun, (19d):

- (19) a. *bil-en sin*  
b. *bil-en sin<sub>i</sub> t<sub>i</sub>*  
c. *sin<sub>i</sub> bil t<sub>i</sub>*  
d. \* *sin bil(-en) sin (sin)*  
his car-the his his

To repeat, it seems clear that if one assumes movement for these cases as in (19b-c), possessive pronouns only move between (but not inside) domains.

As discussed above, the presence of a possessor with a possessive pronoun involves anti-local movement. Grohmann & Haegeman argued that this explains the PD. The question that arises is why anti-local movement is only possible with pre-nominal possessives but not post-nominal ones? Note again that both pre- and post-nominal *sin* are the same.<sup>8</sup> With these issues in mind, let us relate the PD to the SG.

### 3. Relating the PD to Saxon Genitives

Having documented that the PD is not straightforwardly relatable to *von*-possessives, I will now show that the PD can be related to the SG and that both stand in opposition to *von*-possessives.

Taking a different perspective from Grohmann & Haegeman, I propose that the possessive pronoun is not “doubling” the possessor in (20a) but indicates possession like other elements, namely ‘s in (20b). Note in this regard that both elements cannot be left out:

<sup>8</sup> One may also wonder where *pro* is in the derivations in (19).

- (20) a. *Peter \*(sein) Wagen*  
           Peter his car  
       b. *Peter\*(s) Wagen*  
           Peter's car

In fact, the PD is more similar to the SG than to *von*-possessives in other respects (also Fiva 1985). First, the PD and the SG are in complementary distribution with the definite article in front of the head noun:

- (21) a. *Peter sein (\*der) Sohn*  
           Peter his the son  
       b. *Peters (\*der) Sohn*  
           Peter's the son

This is different for *von*-possessives, which must be followed by a determiner:

- (22) *von Peter \*(der) Sohn*  
       of Peter the son

There are also commonalities and differences with indefinite elements. Specifically, the PD and the SG take inflected *ein* with duality-partitive semantics, which presupposes another son:<sup>9</sup>

- (23) a. *Peter sein {\*'n / \*EIN / einer} Sohn*  
           Peter his a / one / one son  
       b. *Peters {\*'n / \*EIN / einer} Sohn*  
           Peter's a / one / one son

*Von*-possessives take uninflected *ein*, (24a). Inflected *ein* is only possible when a definite determiner is present, (24b):

- (24) a. *von Peter {'n / EIN / \*einer} Sohn*  
           of Peter a / one / one son  
       b. *von Peter der eine Sohn*  
           of Peter the one son

To explain these differences with regard to the definite article and *ein*, one can make a distinction between nominal possessives and prepositional possessives. Nominal possessives like the PD and the SG start with the possessor itself but prepositional possessives involving *von* start with the preposition. Without going into any technical details, the leftmost element determines the categorial nature of the possessive. With this in place, one could claim then that if the *von*-phrase is present, then a determiner is required as only nominal possessives license the non-pronunciation of D.

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<sup>9</sup> The difference between uninflected and inflected *ein* only holds when *ein* is in the nominative masculine or nominative/accusative neuter provided *ein* is followed by an adjective and/or noun.



To sum up, this section showed that the PD and the SG pattern together both standing in opposition to *von*-possessives. In the next section, I lay out my proposal. I also provide evidence that *von*-possessives pattern like other pre-nominal PPs.

In this section, I provide my proposal arguing that the nominal left periphery in German is split into a DP-layer and a higher phrase level. The second part of the proposal shows how a uniform underlying structure can form the basis for deriving the differences between the three types of possessives discussed here.

Recall that all three types of possessives discussed here form constituents. Now, the differences between the PD and the SG on the one hand and the *von*-possessives on the other follow if the PD and the SG are lower in the structure but *von*-possessives are higher. I propose that the first two possessives are in Spec,DP (cf. Krause 1999: 202). I assume that possessive pronouns like *sein* are composite forms consisting of a possessive element (*s-*) and a support element (*ein*), which is inserted under D of the matrix nominal. For inflected *ein*, I assume that it is an adjectival element in a high specifier of the matrix nominal (for detailed discussion of the last two assumptions, see Roehrs 2012). With these considerations in mind, the structure of the PD and the SG is as follows:

DP

D'

D AP

A'

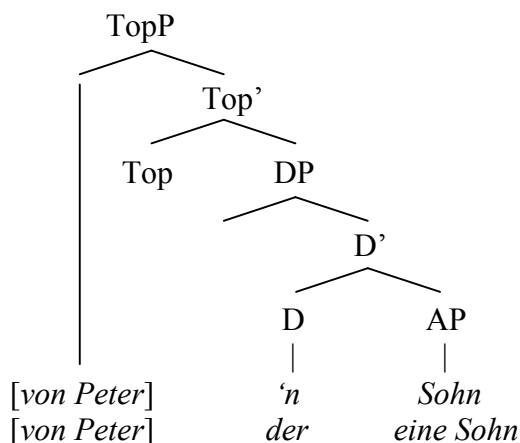
A NP

[Peter s-]ein einer Sohn (PD)

[Peter-s] einer Sohn (SG)

As for *von*-possessives, recall that these possessives seem to be followed by a full DP. Proposing another phrasal level on top of DP – what I call Topicalization Phrase (TopP) here (also Giusti 1996), I argue that *von*-possessives are in Spec,TopP:

(26) *Structure of von-possessives*



Comparing (25) to (26), we wind up with a split-DP layer: DP and TopP (cf. Rizzi 1997; for DP, see Haegeman 2004: 238 for Hungarian extractable possessives, cf. also Svenonius 2004). There is more evidence that the PD and the SG pattern together in opposition to *von*-possessives. In fact, I document that *von*-possessives pattern like other pre-nominal PPs in German.

Under neutral conditions, these possessives pattern differently with regard to stress. The PD and the SG have nuclear stress on the head noun of the matrix nominal. *Von*-possessives and other PP appear to attract stress to the head noun of the PP ((27a) is from Eisenberg & Smith 2002: 124, (27c) is from Lattewitz 1994: 145):

- (27)
- a. *Benedikts RETtung*  
Benedikt's rescue
  - b. *Benedikt seine RETtung*  
Benedikt his rescue
  - c. *von der STADT die Zerstörung*  
from the city the destruction
  - d. *aus ITALien der Wein*  
from Italy the wine

I believe that the stress pattern observed with the *von*-phrase in (27c) and the non-possessive PP in (27d) gives some credence to the label TopP.

Furthermore, if these possessives involve two different types of structures, then one might expect the split-DP structure in (26) to have more options with regard to other determiners in the DP-layer. This is borne out, not only with *von*-possessives, (28b), but also with other pre-nominal PPs, (28c):<sup>10</sup>

<sup>10</sup> Note that plural and mass nouns without an overt determiner are marked. They are best with a pause between the *von*-possessive and a stressed head noun:

- (28) a.  $\{\emptyset / \text{das} / \text{ein} / \text{sein} / \text{ihr}\}$  *Buch von Peter*  
 $\emptyset / \text{the} / \text{a} / \text{his} / \text{her}$  book of/from Peter  
 b. *von Peter*  $\{\emptyset / \text{das} / \text{ein} / \text{sein} / \text{ihr}\}$  *Buch*  
 of/from Peter  $\emptyset / \text{the} / \text{a} / \text{his} / \text{her}$  book  
 c. *aus Italien*  $\{\emptyset / \text{das} / \text{ein} / \text{sein} / \text{ihr}\}$  *Auto*  
 from Italy  $\emptyset / \text{the} / \text{a} / \text{his} / \text{her}$  car

In fact, considering that singular count nouns require the presence of an overt determiner, (28a), the ungrammaticality of the null article in (28b-c) emphasizes the fact that *von*-possessives and other PPs are followed by full DPs.

It is worth pointing out that combinations of *von*-possessives with demonstratives like *diese* ‘this’ and proper names like *Maria* ‘Mary’ are degraded:

- (29) a.  $\{\text{dieses} / \text{Marias}\}$  *Buch von Peter*  
 this / Mary’s book of Peter  
 b. *von Peter*  $\{??\text{dieses} / *\text{Marias}\}$  *Buch*  
 of/from Peter this / Mary’s book  
 c. *aus Italien*  $\{??\text{dieser} / *\text{Marias}\}$  *Wein*  
 from Italy this / Mary’s wine

From the present perspective, this is unexpected: demonstratives are often assumed to be in Spec,DP and I proposed above that the SG is in Spec,DP too. In other words, there is no structural reason why these elements should not be able to occur with the higher *von*-possessive. In fact, these cases of ungrammaticality would immediately follow from the assumption that only one phrase can occupy Spec,DP, which would entail that the *von*-possessive is in Spec,DP after all.

However, note first that the degraded example with the demonstrative is not completely ungrammatical. Rather, it is more likely that this is a semantic restriction. This can be observed when a stressed emotive adjective is added, (30a), or when the *von*-possessive followed by *dieses* is conjoined with a *von*-possessive followed by another demonstrative, (30b):

- (30) a. *von Peter dieses verDAMMte Auto*  
 of Peter this damn car  
 b. *von Peter dieses Auto und von Peter jenes Auto*  
 of Peter this car and of Peter that car

Turning to proper names like *Maria*, this seems to be a special case. Even with contrastive stress, these instances are far from perfect:

- 
- (i) a. ?? *von Peter*  $\emptyset$  *Bücher sind....*  
 from Peter books are  
 b. ?? *aus Italien*  $\emptyset$  *Wein ist....*  
 from Italy wine is  
 c. ? *aus Italien guter Wein ist...*  
 from Italy good wine is

- (31) a. ?\* *Von Peter MARIAS Buch ist besser als von Peter ANKES Buch.*  
           from Peter Mary's book is better than from Peter Anke's book  
       b. ?? *Aus Italien MARIAS Wein ist besser als aus Italien ANKES Wein.*  
           from Italy Mary's wine is better than from Italy Anke's wine

One may observe now that indexical elements like demonstratives under neutral conditions and proper names more generally cannot follow *von*-possessives. I tentatively suggest that these referring elements disrupt the “possessive” relation between the PP and the rest of the nominal.

Finally, cases involving the quantifier *alle* ‘all’ confirm that the *von*-possessive is higher than the DP-level. First note that *alle* must precede the demonstrative indicating that *alle* is indeed in a high position, (32a). When combined with *alle*, the *von*-possessive precedes the quantifier, (32b):

- (32) a. *(Alle) diese (\*alle) Bücher sind teuer.*  
           all these all books are expensive  
       b. *Von Peter alle Bücher habe ich noch nicht gelesen.*  
           of Peter all books have I yet not read  
           ‘I have not yet read all of Peter’s books.’

Recalling that *von*-possessives do not easily combine with demonstratives, more complex examples can only be constructed with other determiners, for instance, definite articles. While perhaps not entirely perfect, it is clear that the *von*-possessive is much better before than after *alle* when a definite article is present. Compare (33a) to (33b):

- (33) a. (?) *Von Peter all die Bücher habe ich noch nicht gelesen.*  
           of Peter all the books have I yet not read  
           ‘I have not yet read all of Peter’s books.’  
       b. ?\* *alle von Peter die Bücher*  
           all of Peter the books

Again, this shows that *von*-possessives are in a position higher than the DP-level.

#### 4.2. Internal Structure of Possessives

Thus far, we have seen that there are three types of possessives, two of which pattern together in opposition to the third. However, I will argue that despite appearances, all three have the same abstract internal structure and that the differences only hold on the surface resulting from movement of the possessor and different spell-outs of a terminal head.

In order to determine the inner structure of possessives, it is important to note that they can also occur post-nominally, with (34a) being out due to the independently motivated assumption that *sein* consists of a possessive element and *ein* in D of the matrix nominal:<sup>11</sup>

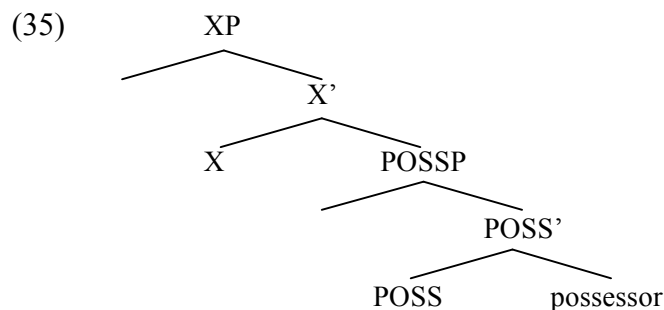
<sup>11</sup> This is different for Norwegian *sin* (see section 2.2). Also, Eisenberg & Smith (2002: 125) state that increasing length of the post-nominal proper name in examples like (34b) makes these possessives more acceptable. As expected, a pre-nominal SG is also possible here:

(i) *Deutschlands Geschichte*

- (34) a. \* *das Auto (sein) dem Peter (sein/s)*  
           the car    his    the Peter his  
       b. *die Geschichte Deutschlands*  
           the history    Germany's  
       c. *das Auto von Peter*  
           the car    of    Peter

This and the above-mentioned similarities follow if one makes the theoretically desirable assumption that all possessives have the same basic internal makeup.

Following Anderson (1983-84), I argue that possessives are multi-component constituents consisting of a possessor and a possessive functor (POSS), where the latter takes the former as a complement. Similar to adjectives (Corver 1997), POSS builds an extended projection (Roehrs 2013):<sup>12</sup>



In order to derive the differences, I propose that POSS in (35) is spelled out differently: simplifying for a moment, if the possessor remains in-situ, POSS surfaces as *von*, (36a); if the possessor moves to Spec,XP, POSS is spelled out as *'s* with a preceding head-like possessor, (36b), or as *s+ein* with a preceding phrasal possessor, (36c). For possessive pronouns without a possessor, I assume the presence of the null possessor *pro*, (36d).

- (36) a. [ X [ *von* [ *dem Peter* ] ] ]  
       b. [ *Peter<sub>i</sub>* X [ *-s* [ *t<sub>i</sub>* ] ] ]  
       c. [ *dem Peter<sub>i</sub>* X [ *s-(ein)* [ *t<sub>i</sub>* ] ] ]  
       d. [ *pro<sub>i</sub>* X [ *s-(ein)* [ *t<sub>i</sub>* ] ] ]

The difference between (36c) and (36d) lies in the overtiness of the possessor, the possessive pronoun being the same. Bearing in mind that possessive pronouns are composite forms restricted to occurring adjacent to the matrix D, the constituent structures in (36a-b) can surface in different phrasal positions in the nominal structure (see again (34b-c)).

In more detail, Krause (1999: 203) claims that the relevant constraint for (36b-c) above involves one (prosodic) word in (37a), but more than one in (37b):

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Germany's    history

<sup>12</sup> There seem to be some arguments that the PD is not a constituent. In my view, these are not conclusive (for some discussion, see Roehrs 2013).

- (37) a. (\**dem*) *Vaters Bild*  
           the-DAT father's picture  
       b. ??/\*(*dem*) *Vater sein Bild*  
           the-DAT father his picture

While (37a) above is basically the same in my dialect, (38a), the absence of the dative determiner in (37b) above sounds better to me. In fact, the article is truly optional for me with proper names, (38b). This means that Krause's prosodic condition is not enough to explain (38b) as without the article, (38b) is like (38a) because the difference between the two with regard to the complexity of the possessor has disappeared:

- (38) a. (\**der* / \*<sup>2</sup>*dem* / ??*des*) *Peters Bild*  
           the-NOM / the-DAT / the-GEN Peter's picture  
       b. (*dem*) *Peter sein Bild*  
           the-DAT Peter his picture

As a consequence, I propose two conditions: a prosodic and a syntactic one (*pace* Krause 1999: fn. 13).

Starting with the latter, there are two components to the syntactic condition. First, I begin with an observation according to which only nouns that can undergo N-to-D raising at LF in argument position of a sentence (Longobardi 1994) can be determiner-less possessors in the PD (see also Roehrs & Sprouse 2004, Lattewitz 1994: 144 fn. 2). Compare the PD in (39a) to the sentence in (39b), where the nouns in (40a) can equally appear.

- (39) a. {*Vati* / <sup>2</sup>*Vater*} *sein Auto*  
           dad / father his car  
       b. {*Vati* / <sup>2</sup>*Vater*} *ist nach Hause gekommen.*  
           dad / father has (to) home come
- (40) a. LF-raising Nouns  
           *Peter, Vati, <sup>2</sup>Vater, Mutti, <sup>2</sup>Mutter, Opa, Oma,*  
           Peter, dad, father, mom, mother, grandfather, grandmother  
       b. Non-LF-raising Nouns  
           *Sohn, Tochter, Stuhl,*  
           son, daughter, chair

In contrast, the nouns in (40b) can appear neither in the PD in (41a) nor in the sentence in (41b):<sup>13</sup>

<sup>13</sup> Geographical names like *Deutschland* 'Germany' seem to be special: they are fine in clauses but awkward in the PD, (i):

(i) ?? *Deutschland seine Hauptstadt*  
       Germany his capital

It seems clear that the PD is subject to an additional condition, something I will not investigate here.

- (41) a. \* *Sohn sein Auto*  
           son his car  
       b. \* *Sohn ist nach Hause gekommen.*  
           son has (to) home come

Turning to the SG, one can find an identical set of nouns where all possessors taken from (40a) are completely fine, (42a-b). Again, this is different for nouns taken from (40b) as can be seen in (42c):

- (42) a. *Vatis Auto*  
           dad's car  
       b. *Vaters Auto*  
           father's car  
       c. \* *Sohns Auto*  
           son's car

As to the second component of the syntactic condition, I propose that the SG involves possessors the size of NPs and that the PD involves possessors the size of DPs. LF-raising of the nouns in (40a) is probably “optional” for independent reasons and these nouns can involve both an NP and DP.<sup>14</sup> As such, all LF-raising possessors are equally fine in the SG as there is simply no movement to the DP-level. Compare the SG in (43a) to the PD in (43b):

- (43) a.  $[[_{NP} \text{ Vater}]-s] \text{ Auto}$   
           father's car  
       b. ?  $[[_{DP} \text{ Vater}_i t_i] s-] \text{ ein Auto}$   
           father his car

To be clear, let us return to the structure in (35). If the possessor is an NP in Spec,XP, POSS is spelled out as ‘s. In contrast, if the possessor is a DP in Spec,XP, POSS surfaces as *sein* provided the entire XP is in Spec,DP of the matrix nominal.

The second component of the syntactic condition finds confirmation by the fact that certain nominals are inherently NPs or DPs. For instance, proper names can be NPs or DPs depending on the presence of an article: *(\*das) England* ‘England’ vs. *\*(die) Ukraine* ‘the Ukraine’. While NP proper names can function as possessors in the SG, (44a), DP proper names cannot, (44b):

- (44) a. *Englands Truppen*  
           England's troops  
       b. ?? *Ukraines Truppen*  
           Ukraine's troops

<sup>14</sup> Here are some examples with proper names as NPs:

- (i) a. *der Sohn (\*der) Peter meines Bruders*  
           the son the Peter of.my brother  
       b. *ein großer (\*der) Obama-Anhänger*  
           a big the Obama-supporter

Adding a definite article before the proper name in (44b) will not improve the example showing that the SG involves NP possessors. Second, pronouns are DPs. As such, they are too large as SG possessors but fine as PD possessors.<sup>15</sup> Notice that (45b) requires stress on the pronoun and is part of a very colloquial register:

- (45) a. \* *ihms Auto*  
           him's car  
       b. *IHM sein Auto*  
           him his car

It is clear then that Krause's prosodic constraint by itself is not enough to account for all the data and must be complemented by a syntactic constraint. However, Krause's prosodic constraint still seems to be needed for the complex possessor in (46a), which Krause takes to be (some kind of) a compound.<sup>16</sup> Other cases of – what appear to be – more complex possessors in the SG exist. Consider (46b), for instance. For the current proposal to be correct, all of these must involve NPs (note that for Gallmann 1997: 81, *Klein-Maria* is a head):

- (46) a. *Herr-n Schmidts Rede*  
           mister-DAT Schmidt's speech  
       b. *Klein-Marias Katze*  
           Little.Mary's cat

## 5. Base-generation vs. Movement

Returning to the two different pre-nominal positions for possessives, I documented in section 3 that nominal possessives (PD, SG) cannot occur with a (free) determiner – both elements are in complementary distribution – but prepositional possessives must be followed by a determiner. I proposed that the PD and the SG surface in Spec,DP but *von*-possessives are in Spec,TopP. One may wonder now if these possessives have moved to these positions or rather, if they are base-generated there.

To find a plausible answer, I will sharpen the discussion by considering possessives in the context of different possessum head nouns; that is, I will discuss the different types of possessives occurring with non-theta nouns like *Auto* 'car' and deverbal/theta nouns like *Eroberung* 'conquest'. While there is not much evidence to point the way, it appears that Spec,TopP might be a position where possessives can only be base-generated but not moved.

Starting with non-theta head nouns, all three possessive constructions are fine in pre-nominal position, (47). They all have the same abstract possessive relation, which can be observed in a context where *Peter* stands in a certain relation to a car (perhaps he washed it) but the car is actually owned by an old lady:

<sup>15</sup> Note that (45a) is prosodically fine (cf. Krause 1999: fn. 17) and its ungrammatical status must be explained differently.

<sup>16</sup> These are probably copulative compounds where both elements are stressed but the rightmost element has primary stress (see O'Grady, Dobrovolsky & Katamba 1997: 258, Fagan 2009: 42, Zwart 2003: 389).



- (47) a. *Peters Auto gehört der alten Frau.*  
 Peter's car belongs to.the old woman  
 b. *Peter sein Auto gehört der alten Frau.*  
 Peter his car belongs to.the old woman  
 c. *Von Peter das Auto gehört der alten Frau.*  
 of Peter the car belongs to.the old woman

With all three possessives equally possible, it can be pointed out that possessives with non-theta nouns do not seem to be telling as regards the question of base-generation vs. movement.

This is different for deverbal/theta nouns. Note first that possessives here have different, “sentential” interpretations like agent and patient. Consider (48), where *Cäsar* functions as the agent but *Gallien* is the patient. Notice in this regard that the preposition *von* ‘of’ can typically not be used with an agentive argument. Rather, German employs *durch* ‘by’ in these instances:

- (48) *die langwierige Eroberung Galliens {durch/\*von} Cäsar*  
 the lengthy conquest Gaul's by / of Caesar  
 ‘the lengthy conquest of Gaul by Caesar’

Crucially, deverbal/theta nouns do not allow preceding *von*-/*durch*-possessives (something similar also applies to Bulgarian, see Giusti 1996: 124).<sup>17</sup>

- (49) a. *Cäsars langwierige Eroberung Galliens*  
 Caesar lengthy conquest Gaul's  
 b. ?? *Cäsar seine langwierige Eroberung Galliens*  
 Caesar his lengthy conquest Gaul's  
 c. *{?\*durch/\*von} Cäsar die langwierige Eroberung Galliens*  
 by / of Caesar the lengthy conquest Gaul's

The proposal above stated that nominal possessives appear in Spec,DP (but not Spec,TopP) and prepositional possessives surface in Spec,TopP (but not Spec,DP). Given the contrast between (49a-b) and (49c), there is one refinement that needs to be made in the account: pre-nominal prepositional possessives can only occur with non-theta head nouns.

Let us assume that all possessives are base-generated low in the nominal structure and move to their respective surface positions in the left periphery (this will be revised for *von*-possessives below). Specifically, I assume that D of the matrix nominal has nominal features to check/value. Articles, demonstratives, and nominal possessives like the PD and the SG can check/value these features (but not prepositional possessives). This explains why only the PD and the SG may surface in Spec,DP.

As for Spec,TopP, Top has no categorial (but only discourse informational) features to check/value. This will, at least in principle, allow both nominal and prepositional possessives to occur there. This is in line with the fact that non-possessives PPs can occur in Spec,TopP as shown above. In order to rule out nominal possessives, I propose that movement from Spec,DP

<sup>17</sup> All examples in (49) are somewhat marked but there is a clear relative difference between them ((49b) might involve a stylistic clash).

to Spec,TopP is too short (anti-local) and cannot be “repaired”. Now, interpreting the occurrence of resumptive pronouns as a repair strategy, this entails that German does not have resumptive pronouns in this context (*pace* Grohmann & Haegeman). This rules out the PD and the SG to surface in Spec,TopP but allows prepositional possessives, which can move to Spec,TopP in one fell swoop: *von*-phrases are not nominal and do not have to move via Spec,DP on their way to Spec,TopP. So far, so good.

However, it is not clear yet what explains the restriction of *von*-possessives to non-theta nouns (cf. (47c) vs. (49c)). If *von*-possessives were to move from below leaving behind a copy, they should be equally able to establish a possessive relation with deverbal/theta head nouns as with non-theta head nouns, contrary to fact. To explain the contrast of *von*-/*durch*-possessives with non-theta vs. deverbal/theta nouns, I propose that the possessive relation between the possessive and the possessum head noun is established in different ways depending on the type of head noun (also Roehrs 2013 and references cited therein).

In general, I assume that the possessive relation is established late in the derivation, say at LF, and this relation licenses the presence of the possessive in the larger nominal structure. More specifically, as reflected by the sentential interpretations of possessives, I propose that deverbal/theta head nouns establish the possessive relation in a tight way such that the relation between the possessive and possessum is very local. I suggest that this has to do with the way sentential theta roles are assigned. In concord with the above discussion, I propose that nominal possessives (PD, SG) are base-generated low and move as high as Spec,DP.

In contrast to the above discussion, I suggest now that prepositional possessives can be base-generated in different phrasal positions. If base-generated in Spec,TopP, they are too far “away” to establish a possessive relation with a deverbal/theta head nouns and their presence in the structure is not licensed. This explains the ungrammaticality in these instances. As for non-theta nouns, the possessive relation is established differently; that is, possessives can be base-generated further “away” from the head noun.<sup>18</sup> This is reflected by the more abstract interpretations of these possessives. I propose that with non-theta nouns, *von*-possessives are base-generated in Spec,TopP (cf. Aboh *et al* 2010: 793).

To sum up, there are two ingredients to account for the distribution of possessives in the left periphery: (i) possessive relations are established differently, with deverbal/theta nouns in a tight/local fashion but with non-theta nouns in a loose/distant manner; (ii) nominal possessives are base-generated low in the structure and move up but *von*-possessives can be base-generated “freely” (i.e., in different positions). Both the non-theta nouns and the *von*-possessives involve the fewest constraints and their combination accounts for the fairly free occurrence of *von*-possessives with non-theta nouns.

## Conclusions

This paper argued that Possessor Doublings and Saxon Genitives pattern the same. These nominal possessives move to Spec,DP. In contrast, *von*-possessives show different properties being base-generated in Spec,TopP. This provides evidence that the left periphery of nominals is split in German.

<sup>18</sup> Note that nominal possessives *must* be base-generated below, independent of the type of head noun. Provided a technical solution can be found, anti-local movement will prevent the PD and the SG from occurring in Spec,TopP.

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