

The Left Periphery of the German Noun Phrase: Left Periphery Phrase*

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Abstract: This paper examines prenominal *von*-possessives in German and relates them to Saxon Genitives and Possessor Doublings in that language. *Von*-possessives are prepositional possessives that precede determiners and are stressed. Saxon Genitives and Possessor Doublings are nominal possessives that pattern together but have different properties from *von*-possessives. It is proposed that there are two left peripheral positions in the German noun phrase: Spec,DP and Spec,LPP. Nominal possessives move to Spec,DP checking the definiteness feature on D. In contrast, prepositional possessives move to the specifier of a higher Left Periphery Phrase checking a discourse feature. Despite these differences, this paper proposes that all possessive constructions have the same basic inner makeup. It is shown that non-possessive elements can also surface in Spec,LPP. This dichotomy between nominal possessives and preposed PPs provides another argument that the nominal left periphery is more complex than usually assumed. However, it will be shown that the nominal left periphery in German is different from that of the clause.

Keywords: nominal left periphery, topicalization, possessives

1. Introduction

The left periphery of the clause has received a lot of attention in the literature. In his seminal paper, Rizzi (1997) argues that the left periphery of the clause is much more complex than previously assumed. Rather than a simple CP, the left periphery involves more structure. Illustrating with Italian, Rizzi (1997: 295) provides the following example in (1a) and analyzes it as in (1b):

- (1) a. *Credo che a Gianni, QUESTO, domani, gli dovremmo dire.* (Italian)
believe.1SG that to Gianni, this, tomorrow we should say
'I believe that to Gianni, THIS, tomorrow, we should say.'
b. ... [ForceP *que* [TopP *a Gianni* [FocP *QUESTO* [TopP *domani* [FinP Fin [IP *gli ...*]]]]]]

He argues that when topicalized and/or focused elements are present in the left periphery, CP is split into a Force Phrase (ForceP), a (recursive) high and low Topicalization Phrase (TopP), an intermediate Focus Phrase (FocP), and a Finiteness Phrase (FinP) (for the application of this type of analysis to the German clause, see for instance Speyer 2008).

It is probably fair to state that the left periphery of the noun phrase has been discussed less than that of the clause. There are some notable exceptions. For instance, for the Bulgarian

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

Giusti (1996) tentatively suggests that the Bulgarian structure and derivation might account for the doubling effect in (3a), where in colloquial German a dative possessor (*dem Peter* ‘(the) Peter’) occurs with a possessive determiner (*sein* ‘his’).¹ 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. Extending their discussion to German, the example in (3a) is schematically derived as in (3b). Note that both AgrP and PossP are taken to be part of the same domain leading to anti-local movement of the possessor and spell-out of its lower copy as the possessive determiner:

- If the possessor is topicalized or focused, it moves to Spec,TopP, structurally similar to (2b).² I will refer to the head noun *Auto* ‘car’ as POSSESSUM and to the complex possessive *dem Peter sein* ‘(the Peter his =) Peter’s’ as POSSESSOR DOUBLING, where the possessor is taken to be doubled by the possessive determiner (at least in analyses like (3b)).

¹ As an independent feature of German, proper names may occur with a definite article (*der Peter* ‘Peter’), an element often referred to as proprial article. In simplified terms, southern dialects typically require such an article but northern dialects do not, with the proviso that in all dialects, this article cannot occur in vocatives or, more relevant here, in Saxon Genitives (see below). Also, I will label elements such as *sein* ‘his’ as possessive determiners. Traditionally, they have been grouped with other *ein*-words (i.e., the indefinite article *ein* ‘a’ and the negative article *kein* ‘no’). These elements behave the same syntactically (they all cannot be preceded by a definite article) and morphologically (they all inflect the same: *seine/eine/keine*, *seinem/einem/keinem*, etc.).

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- (4) 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 preposed *von*-possessive in (4a), which is much less often studied in the literature. To sharpen the discussion, this paper also discusses a third prenominal possessive construction, SAXON GENITIVES, which involve cases like *Peters* ‘Peter’s’ as in *Peters Auto* ‘Peter’s car’.

In this paper, I pursue the following two research questions. First, how do the three different prenominal possessives in German relate to one another? Second, are prenominal *von*-possessives also in Spec,DP? In order to answer these questions, I will focus on the morpho-syntax of this construction. Note that there seem to be some lexical restrictions as regards the different components of these constructions. For instance, some southern dialects only seem to allow inalienable head nouns like *Bruder* ‘brother’ in (4a). I will not focus on the latter type of restriction here but a few remarks are made below (for more details, see Bhatt 1990: 222-226).

The appearance of Abney (1987) was followed by an explosion of activity in work on the noun phrase in German. Many of these early contributions acknowledge the existence of prenominal *von*-possessives and the like but did not discuss them in detail (e.g., Gallmann and Lindauer 1994, Lindauer 1995: 52, Zimmermann 1991). To date, Bhatt (1990), Haider (1992), and Fortmann (1996) provide most discussion and I will incorporate their observations and ideas in more detail below.

To anticipate the discussion, notice that all these possessives occur to the left of adjectives. However, despite appearances, I will argue that there are two different pre-adjectival positions for possessives in German. I will call them Spec,DP and Spec,LPP, the latter being the specifier of a higher Left Periphery Phrase (Giusti & Iovino 2016). Providing a comparison of the three prenominal possessives, I will show that Possessor Doublings and Saxon Genitives pattern together and propose that they occupy the lower position (Spec,DP). The higher position in the left periphery (Spec,LPP) is taken by *von*-possessives. If tenable, this argues that besides Bulgarian, Latin, Brazilian Portuguese, and Hungarian, the DP-level is also split in German: DP and LPP. However, it will turn out that the nominal and the clausal left peripheries are not completely parallel.

The paper is organized as follows. Section 2 shows that while there are reasons to believe that Possessor Doublings are related to *von*-possessives, there are also some issues. This includes a brief critique of Grohmann & Haegeman (2003). Section 3 argues that Possessor Doublings have actually more features in common with Saxon Genitives and both of these stand in opposition to *von*-possessives. Introducing more data, I propose in section 4 that Possessor Doublings and Saxon Genitives are located in Spec,DP but *von*-possessives are housed in the higher Spec,LPP. 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 different heads merged inside the possessive structure. Section 5 provides some evidence that Spec,LPP is a position where PPs move into. In section 6, I briefly compare the left periphery in noun phrase to that of the clause and I provide a cross-linguistic outlook. The conclusion closes the paper.

2. Relating Possessor Doublings to *Von*-possessives

In this and the next section, I discuss some properties of the familiar Possessor Doublings and Saxon Genitives and relate them to *von*-possessives. This section shows that taking Giusti's (1996) suggestion seriously, Possessor Doublings appear to be relatable to prepositional possessives. However, there are also a number of issues with such a conjecture. The following discussion includes a brief critique of Grohmann & Haegeman (2003).

2.1. Interpretations, Stress Patterns, and Doublings

At first blush, it is appealing to relate Possessor Doublings as in (3a) to prenominal *von*-possessives as in (4a). It is by now a standard assumption that Possessor Doublings form a constituent with the possessum head noun:

- (5) a. *Peter sein Auto ist teuer.*
 Peter his car is expensive
 'Peter's car is expensive.'
 b. *Ich interessiere mich für Peter sein Auto.*
 I interest myself for Peter his car
 'I am interested in Peter's car.'

Similarly, *von*-possessives also form a constituent with the following nominal. This point can be made with both matrix and embedded clauses where the entire nominal may surface in Spec,CP (6a-b). In addition, constituency can also be shown with coordination (6c) and embedding the possessive inside another PP (6d). Note that stress on the possessor makes the examples more felicitous and we will see below that this is a general feature of the construction.³

- (6) a. [*Vom Peter das Auto*] *habe ich nicht gesehen.*
 of.the Peter the car have I not seen
 'I have not seen Peter's car.'
 b. (?) *Was sagst du [von wem den Bruder] er angerufen hat?*
 what say you of whom the brother he called has
 'Whose brother do you say he has called?'
 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
 'I have seen Peter's sister and Mary's brother.'

³ Fortmann (1996: 118) provides (6b) as fully grammatical. In my north-eastern dialect, it is slightly marked. Also, Gallmann & Lindauer (1994) state that these prepositional constructions cannot follow another preposition. However, a postposition as in (6d) seems to be possible.

- d. [Von Peter die Straße] entlang bin ich noch nie gegangen.
 of Peter the street along am I still never gone
 'I have never gone down on Peter's street.'

Furthermore, in both Possessor Doublings and *von*-possessives, the possessor is in the dative and precedes a determiner element, *sein* 'his' in (3a) and *das* 'the' in (4a). Moreover, comparing (6a) to (6c) and (3a) to (7a), the dative determiner of the possessor can also be left out with Northern German being fairly tolerant in this respect (recall footnote 1). Besides these similarities, there are also some differences between Possessor Doublings and *von*-possessives. As briefly discussed at the end of this subsection, these can easily be derived allowing us to maintain the claim that Possessor Doublings and *von*-possessives are relatable.

A first difference can be observed in interpretative possibilities. In (7a) the possessor and the possessive determiner are co-referential indicated here by the same indexation. Together, they are obligatorily interpreted as possessives (in the broad sense) in relation to the possessum head noun. However, a difference emerges when a possessive determiner occurs instead of the definite determiner (7b). Now, *von Peter* is interpreted as origin; that is, *sein* 'his' in (7b) refers to a person different from *Peter*. In very colloquial registers, (7b) can, for some speakers, also involve co-reference of the possessor in the *von*-phrase and the possessive determiner resulting in a possessive reading (this dialectal option is indicated by %):

- (7) a. *Peter_i sein_{i/*k} Auto*
 Peter his car
 'Peter's car'
 b. *von Peter_i sein_{k/%i} Auto*
 of/from Peter his car
 'his car from Peter'
 '%Peter's car'

Consonant with the *von*-phrase in (7b) indicating origin, it is interesting to point out that there are also other types of PP possible in pre-determiner position, for instance, locational (8a), directional (8b), and temporal ones (8c) (also Fortmann 1996: 98):

- (8) a. [Auf dem Tisch die Vase] ist nicht so teuer.
 on the table the vase is not so expensive
 'The vase on the table is not so expensive.'
 b. [Nach Hamburg der Zug] hatte keine Verspätung.
 to Hamburg the train was not delayed
 'The train to Hamburg was not delayed.'
 c. [Nach Ostern die Woche] ist besser.
 after Easter the week is better
 'The week after Easter is better.'

Second, restricting our attention to the possessive elements, the possessor and the possessive determiner, the difference in interpretation between (7a) and (7b) is also reflected by different possible stress patterns. While the possessor can be contrastively focused in (9a) and

(10a), a difference emerges with regard to the intervening possessive determiner: whereas (9b) is much less natural than (9a) (cf. Verhaar 1997: 106 on Dutch), (10b) is only slightly worse than (10a):⁴

- (9) a. *Nein, ich meine PETER sein Handy, nicht MARIA ihr Handy.*
 no I mean Peter his mobile not Mary her mobile
 ‘No, I mean Peter’s mobile phone, not Mary’s.’
 b. ?? *Nein, ich meine Peter SEIN Handy, nicht Maria IHR Handy.*
 no I mean Peter his mobile not Mary her mobile

(10) [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 Mary your mobile
 ‘No, I mean your mobile phone from Peter, not your mobile phone from Mary.’

[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
 ‘No, I mean your mobile phone from Peter, not her mobile phone from Peter.’

As for the third difference, we have seen above that *von*-possessives can be followed by definite articles and possessive determiners. In sections 3 and 4.1, we will see that other types of determiners are also possible. Given these different lexical options, these elements are unlikely to be resumptive pronouns in the sense of Grohmann & Haegeman (2003). In fact, plausible candidates as resumptive pronouns for PPs are adverbial *da*-pronouns. However, these are not possible at all:

- (11) a. * [*von Peter*]_i *davon_i* (das) Auto
 of/from Peter there.of/from the car
 b. * [*aus Italien*]_i *daraus_i* (der) Wein
 from Italy there.from the wine

These differences in interpretation, stress patterns, and doublings between (3a) and (4a) follow on the assumption that the moved DP in (3a) leaves behind a resumptive pronoun but the *von*-possessive in (4a) does not. Perhaps, advocates of this line of research could state that German does not have overt adverbial resumptive pronouns (I return to this claim in section 6.1). It appears then as if Giusti’s (1996) idea to relate Possessor Doublings to prepositional possessives is tenable and the proposal by Grohmann & Haegeman (2003) in (3b) for the Possessor Doubling in (3a) can be upheld for German.

⁴ As noted above, the possessor in the *von*-possessive can have topicalization and focal stress and I only indicate the latter in the paper. The reason why (10b) is a bit marked presumably has to do with the fact that there are two stressed elements in the noun phrase: the possessor and the possessive determiner.

2.2. Some Issues for Grohmann & Haegeman (2003)

Interpreting the possessive determiner in (3a) as a resumptive pronoun due to Copy Spell-out also raises some questions. Above, I briefly mentioned one potential issue with Grohmann & Haegeman (2003). In this section, I will discuss that and three other issues in more detail.

First, it is clear that the possessive determiner in Possessor Doublings cannot be left out; compare (12a) to (12b):

- (12) a. *dem Peter sein Wagen*
the.DAT Peter his car
'Peter's car'
b. * *(dem) Peter Wagen*
the Peter car

Grohmann & Haegeman (2003) point out that possessors have subject properties and they assume several subject positions in their nominal structure. It is the movement between these subject positions (within the same domain) that results in anti-local movement and the Copy Spell-out of the possessive determiner. The lowest subject position is a case-licensing position and subjects move there to check case (Chomsky 1995). This means that the possessor must undergo further movement to a higher subject position to account for the ungrammaticality of (12b). Grohmann & Haegeman (2003) motivate this movement to higher positions by assuming that the possessor subject checks other features. While this is not implausible, I believe that movement to the lowest subject position, the case-licensing position, is not entirely straightforward.

Considering the Possessor Doubling (12a), the case of this possessor is clearly dative. It is a standard assumption that the subject case is nominative in the clause and genitive in the noun phrase. As such, dative in the noun phrase is not a typical structural case where possessors move to check their case in a certain position or structural constellation.⁵ Compared to other subjects, possessors in Possessor Doublings seem to be different. There are two ways to proceed: either, dative is a second structural case in the noun phrase, or the proposal by Grohmann & Haegeman (2003) is on the wrong track.

The first option is not implausible but it raises the challenging question when exactly which case is checked (dative vs. genitive). The second option, case-driven movement of the possessive, presents a more general issue. As we will see below, possessives can also surface below the head noun. If case is involved in the distribution of nominal possessives, then there must be (at least) two case positions in the DP (above and below the head noun). Proponents of

⁵ This is less obvious for languages other than German. For instance, in her classical discussion of possessives in Hungarian, Szabolcsi (1983-84) points out that possessives can be in the dative if preceding a definite article but in the nominative if they follow it. This is different from German in two ways. First, all prenominal possessives in German precede the position that the definite article occurs in. Second, a case alternation of the Hungarian type does not exist in German (e.g., there is no case difference with Saxon Genitives in pre- or postnominal position). In fact, different cases can occur in the same position where Saxon Genitives occur in the genitive and Possessor Doublings in the dative (section 3). Note that one cannot simply claim that the dative occurs in colloquial German (the Possessor Doublings) but that the genitive is only found in the formal language. Specifically, in my dialect of German, Saxon Genitives are stylistically neutral as they can occur in formal and colloquial contexts. While a more detailed comparison of German and Hungarian is not possible here, these two distinctions suggest different analyses.

such case-driven movement of possessives have to find a solution for the question of how movement from one case position to another is possible.

Second, we have just seen that the possessive determiner cannot be left out. In fact, there is an even stronger requirement such that the resumptive pronoun must be a very specific element. Note first that in German the doubling determiner agrees in case with the possessum head noun rather than with the possessor. Specifically, the possessor is in the dative in both (13a) and (13b) but the possessive determiner is in the nominative in (13a) but in the accusative in (13b):

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

On Copy Spell-out, however, two different morphological cases seem unexpected.⁶ One may object that the case mismatch immediately follows considering that the doubling element is a determiner and as such, it agrees with the head noun. From this perspective though, the question arises why a displaced noun phrase in the dative may leave a possessive determiner as a resumptive pronoun and not a personal pronoun (14a) or a demonstrative pronoun (14b). Independent of the morphological case on such pronouns, these elements are not possible:

- (14) a. * *(dem) Peter ihm /er Wagen*
 the Peter he.DAT/he.NOM car
 b. * *(dem) Peter dem /der Wagen*
 the Peter that.DAT/that.NOM car

This means that Copy Spell-out yields a specific resumptive pronoun. Considering that dative noun phrases are not possessives by themselves, this pronoun must nonetheless be a possessive determiner. To be fair, Grohmann & Haegeman (2003: 55) explicitly admit that they do not have an answer to this question.

Third, possessive determiners exist without (overt) possessors. For cases like (15), Grohmann & Haegeman (2003: 53) seem to assume the presence of *pro*. Importantly though, *pro* and the possessive determiner are not related by movement. Put differently, the possessive determiner in these instances is not a resumptive pronoun:⁷

- (15) [*pro sein [Auto]*]
 his car
 ‘his car’

⁶ This does not appear to be an insurmountable problem though (for a possible solution, see section 4.1).

⁷ A reviewer observes that *pro* does the job here that it was proposed for in *pro*-drop languages (e.g., Rizzi 1986): it ‘refers’ to an entity that is so salient that it does not have to be mentioned.

As a fourth and final issue, one may wonder how Copy Spell-out relates to postnominal possessives in Norwegian, a language discussed by Grohmann & Haegeman (2003). Here I will focus on postnominal *hans*.⁸ Note that like *sin* discussed above (16a), *hans* can optionally occur with a possessor too (16b):

- There are numerous arguments that *hans* in (16b) is not a proprial article when it precedes the possessor. A strong argument that *hans* cannot be the genitive form of the proprial article comes from Delsing's (1998: 100ff) observation that *hans* may occur with a (true) proprial article (17a). Interestingly, *hans* can be replaced by the possessive morpheme 's (17b) (data is taken from Holmberg & Sandström 1995: 33):

- For a whole battery of arguments that *hans* is not a proprial article in case like (16b), see Delsing (1998). Crucially, as *hans* precedes the possessor, it cannot be a resumptive pronoun either. Considering the complementary distribution of *hans* and 's in (17), it is more likely that *hans* is a possessive morpheme just like 's. Indeed, Delsing (1998) proposes that (16b) should be related to (16a). If this is tenable, then (16b) is a Possessor Doubling construction as well, the difference being that the possessor follows the possessive morpheme (also Roehrs 2013). I return to this in section 4.2.

⁸ For reasons of space, I will not discuss postnominal *sin* as in *bilen sin* '(car-the his=) his car' here.

properties as the resumptive pronoun. Finally, the question arises why anti-local movement is only possible with prenominal possessives but not postnominal ones? Given these issues, I will pursue a different analysis.

3. Relating Possessor Doublings to Saxon Genitives

In section 2.1, I followed Giusti (1996) showing that Possessor Doublings might indeed be relatable to preposed PP-possessives. Grohmann & Haegeman (2003) propose that the possessor undergoes (anti-local) movement resulting in Possessor Doublings. With both constructions involving movement, this parallelism seems an attractive suggestion. However, in section 2.2, I documented some general issues of Grohmann & Haegeman's (2003) proposal. In what follows, I will show that Possessor Doublings should be related to Saxon Genitives, a proposal already made by Fiva (1985), and that both stand in opposition to *von*-possessives. Making certain assumptions, the data introduced this far can be accounted for by claiming that all pre-adjectival possessives are in the same position, Spec,DP.

Fiva (1985) proposes for Norwegian that *sin* 'his' and 's are variants of the same element. Arguing that the 's is not a case suffix, Fiva points out that both elements have the same distribution. Indeed, they are shown to be mutually exchangeable and in complementary distribution. Fiva proposes that these elements are in the same position. In what follows, I will illustrate these points using German. I will reach the same basic conclusion that these elements are related and in the same position. The similarities become clearest if Possessor Doublings and Saxon Genitives are compared and contrasted with preposed PP, the latter not discussed by Fiva. After some introductory remarks, I turn to three relevant differences.

To begin, note first that *sein*, 's, or *von* cannot be left out:

- (18) a. *Peter *(sein) Wagen*
 Peter his car
 'Peter's car'
 b. *Peter*(s) Wagen*
 Peter's car
 'Peter's car'
 c. **(von) Peter der Sohn*
 of Peter the son
 'Peter's son'

Furthermore, these possessive elements cannot co-occur:⁹

- (19) a. * *Peters sein Wagen*
 Peter's his car
 b. * *von Peters Wagen*
 of Peter's car

⁹ Recall that in very colloquial registers, (19c) is possible for some speakers. In terms of the proposal developed in section 4.2, this dialectal option might be interpreted as *s-ein* selecting a PP, which in turn could involve a second possessive structure.

- c. */% *von Peter sein Wagen*
of Peter his car

The same facts hold for the Scandinavian examples in (17) where the possessives are in postnominal position. Following Fiva (1985), I propose that the possessive determiner is not “doubling” the possessor in (18a) but indicates possession like other elements, namely *'s* in the Saxon Genitive and *von* in the prepositional possessive (for German, also Krause 1999, Weiß 2008, and others). In other words, I will take these three elements to be possessive morphemes.

Turning to the three differences, Possessor Doublings and Saxon Genitives in German are in complementary distribution with the definite article in front of the head noun. In contrast, *von*-possessives are not only compatible with a determiner but require its presence (Haider 1992: 324):

- (20) a. *Peter sein (*der) Sohn*
Peter his the son
‘Peter’s son’
b. *Peters (*der) Sohn*
Peter’s the son
‘Peter’s son’
c. *von Peter *(der) Sohn*
of Peter the son
‘Peter’s son’

To explain this difference with regard to the definite article, let us make a distinction between nominal possessives and prepositional possessives. Without going into any technical details here (see section 4.2), we simply assume that the possessive elements *sein*, *'s*, and *von* determine the categorial nature of the possessive. Given its inflection and distribution, *sein* is clearly nominal in nature:¹⁰ it behaves like other determiners (footnote 1) and is part of the larger noun phrase. Something similar holds for *'s* considering its old history as a genitive suffix and the fact that it only attaches to proper names in German. Uncontroversially, *von* is a preposition. Thus, Possessor Doublings and Saxon Genitives are nominal possessives but *von*-phrases are prepositional possessives. Now, nominal possessives involving proper names are definite elements and we can claim that they license the absence of the definite article. In contrast, PPs have nothing to do with definiteness and a determiner must occur to specify the definiteness of the larger noun phrase. This could be taken to explain the difference between (20a-b) and (20c).

Second, there are also commonalities and differences with indefinite elements. Here I discuss *ein* ‘a/one’. I assume for now that there is only one kind of *ein* -- the indefinite article when not stressed (often surfacing as the reduced form *'n*) or the singularity numeral when stressed (provided below as *EIN*). What is interesting to note is that Possessor Doublings and Saxon Genitives take inflected *ein* (English translations are only approximations here; for more details, see below):

¹⁰ In Chomsky’s (1981) system of lexical categories, this could be stated as [+N].

- (21) a. *Peter sein* { **n* / **EIN* / *einer* } *Sohn*
 Peter his a / one / one son
 ‘one of Peter’s sons’
 b. *Peters* { **n* / **EIN* / *einer* } *Sohn*
 Peter’s a / one / one son
 ‘one of Peter’s sons’

In contrast, *von*-possessives take uninflected *ein* (22a). Inflected *ein* is only possible when a definite determiner is present (22b):¹¹

- (22) a. *von Peter* { *n* / *EIN* / **einer* } *Sohn*
 of Peter a / one / one son
 ‘a/one son of Peter’s’
 b. *von Peter der eine Sohn*
 of Peter the one son
 ‘one of Peter’s sons’

As with definite articles above, Possessor Doublings and Saxon Genitives pattern together (21a-b) as opposed to *von*-possessives (22a). I take up the discussion of (22b) further below.

As for the distribution of *ein*, we could state that with PPs having nothing to do with definiteness, the occurrence of an indefinite article in (22a) is not surprising as it specifies the noun phrase with regard to definiteness. However, with nominal possessives being definite, the appearance of an indefinite article is unexpected. This hints at the fact that the inflected *ein* in (21) is a different type of element. Before I turn to the third difference, I briefly discuss the two types of *ein* just alluded to. This will be relevant for the structural proposals in section 4.

In view of the above discussion, I will pursue a different analysis of indefinite *ein* in (21). I suggest that the inflected *ein* occurring with the nominal/definite possessives is not the indefinite article but an element lower in the structure. As for the *von*-possessive, I claim that this is indeed the indefinite article. To be clear, then, I propose two types of *ein*: first, (23a) illustrates the indefinite article including the singularity numeral and (23b) shows the second type of *ein*. The latter involves duality-partitive semantics, which presupposes another man. This is particularly clear if *ein* is stressed.¹² As indicated by parentheses, this type of *ein* is often followed by a second noun phrase containing *ander* ‘other/second’:¹³

¹¹ The difference between uninflected and inflected *ein* only holds when *ein* is in the nominative masculine or nominative/accusative neuter provided *ein* is on the one hand, not preceded by a definite article and on the other, it is followed by an adjective and/or noun. These instances show the relevant difference in the simplest way and I will focus on these cases here. In section 4, I will pursue a different proposal to explain the distribution of definite and indefinite elements following the possessives.

¹² This presupposition is cancelled with demonstratives. On the one hand, demonstratives themselves have stress; on the other, they are deictic asserting a singular choice:

(i) *dieser eine Mann*
 this one man
 ‘this one man’

¹³ Cross-linguistic data from closely related languages confirm the claim of two types of *ein*, with the second involving duality semantics. In Norwegian, the indefinite article and singularity numeral in the neuter are *et* ‘a’ and *ett* ‘one’, respectively. However, as pointed out to me by Marit Julien (p.c.), the expected form *et(t)e* is impossible in the context under discussion and a different form must be used (ia) (for the discussion of duality semantics, see

- (23) a. *ein / EIN netter Mann*
 a / one nice man
 ‘a/one nice man’
 b. *der eine Mann (, der andere Mann)*
 the one man (, the other man)
 ‘one of the men, the other man’

I follow standard assumptions in assuming that the indefinite article is in D and the singularity numeral in CardP, a phrase level just below the DP-layer. As for the second type of *ein*, I propose that it is in a position lower than the indefinite article. This is warranted by the fact that this *ein* can be preceded by another determiner, as seen in (23b) above. I believe this type of *ein* is also in a position different from the singularity numeral as it shows inflectional parallelism with a following adjective. Compare (24a-b) to (24c):

- (24) a. *Peter sein einer guter Freund*
 Peter his one good friend
 ‘one of Peter’s nice friends’
 b. *Peters einer guter Freund*
 Peter’s one good friend
 ‘one of Peter’s nice friends’
 c. *von Peter EIN guter Freund*
 of Peter one good friend
 ‘one nice friend of Peter’s’

Consequently, I would like to suggest that *ein* in (24a-b) is a type of adjective that is in a high AgrP position (cf. Cinque 2005). As might be expected, adjectives can occur in plural contexts. In this respect, Lindauer (1995: 160) provides the following example:

- (25) *die einen Leute*
 the one persons
 ‘the first bunch of people’

Returning to the *von*-possessive in (22b), it is clear now that *ein* is an adjectival element when it follows a definite article and it is independent of the presence or absence of the *von*-phrase.

Returning to the main line of argument, there are also some similarities and distinctions with regard to case assignment. It is uncontroversial that the preposition *von* assigns dative case to the DP on its right. It is less clear how case works with the nominal possessives. This is not

Börjars 1998: 18 on Swedish). In Yiddish, *eyner* ‘one/first’ is followed by *tsveyter* ‘other/second’ in the context of two elements (ib) (the Yiddish data is taken from Reershemius 1997: 362):

- (i) a. *det ene store huset* (Norwegian)
 the one big house.DEF
 ‘one of the big houses’
 b. *...tsvey brider ...Der eyner hot zikh ungerufn Elon un der tsveyter Aladan.* (Yiddish)
 two brothers the one has REFL called Elon and the second Aladan
 ‘...two brothers... The first was called Elon and the second Aladan.’

the time and place to survey the enormous literature on this topic (but see the classic discussion in Chomsky 1981: 170 and 1986: 193 on case assignment and case realization, respectively). Above, we related *sein* and 's to *von* stating that all these elements are possessive morphemes. Let us suggest that the former elements are also case assigners. As mentioned before, the possessor in Possessor Doublings is dative (26a). There are reasons to believe that the possessor in Saxon Genitives is in the genitive (26b) (*pace* Krause 1999: 197):

- (26) a. *dem Peter sein Auto*
 the.DAT Peter his car
 ‘Peter’s car’
 b. *Herrn Schmidts Rede*
 mister.GEN Schmidt’s speech
 ‘mister Schmidt’s speech’

Historically speaking, Saxon Genitives -- as the name already suggests -- involved genitive case. In modern German, this is not so obvious. That Saxon Genitives are not true genitives (anymore) can be seen in (27a), where a feminine proper name takes 's, which is impossible for other feminine nouns. Indeed, in closely related Yiddish, the possessor in Saxon Genitives is clearly dative:

- (27) a. *Annes Auto* (German)
 Anne’s car
 ‘Anne’s car’
 b. *der froys oyto* (Yiddish)
 the.DAT woman’s car
 ‘the woman’s car’

Considering Yiddish, it should be clear though that the morphological case of the possessor should be separated from the possessive element 's. If we extend this analysis to German, we can state that *Annes* is not the actual genitive form but rather just *Anne*. This is in agreement with the general fact that feminine nouns do not take case inflections in German in the singular. Thus, we can maintain that Saxon Genitives still involve genitives. The data can be schematically represented as follows:

- (28) a. *[Anne]s Auto* (German)
 b. *[der froy]s oyto* (Yiddish)

There is another indication that *Anne* in (27a) is in the genitive. This can be seen when the proprial article is added to a male name. The latter distinguishes the genitive from the dative showing that the genitive version is better than the dative one (in section 4.2, I discuss why the addition of the article leads to degradedness):

- (29) a. ?? *des Peters Wagen* (German)
 the.GEN Peter's car
 b. ?* *dem Peters Wagen*
 the.DAT Peter's car

I just claimed that 's assigns genitive in German but dative in Yiddish. A similar point can be made for *sein*. In some older varieties of German, the possessor appears in the genitive (30a) and in German dialects where the dative has been replaced by the accusative, we find the accusative (30b) ((30a) is from Behaghel (1923 : 640); (30b) is from (Eikel 1967: 94):

- (30) a. *für des knaben sein leben* (Early New High German)
 for the.GEN boy his.ACC life
 'for the boy's life'
 b. *bei den Doktor sein Haus* (Texas German)
 at the.ACC doctor his.ACC house
 'at the doctor's house'

Claiming that the possessive morpheme assigns case yields the most straightforward account of the case on the possessor, immediately explaining the variation seen across different languages and dialects. This implies that possessive morpheme are heads, which are well known to vary in their case properties across languages.¹⁴ The claim then is that just like *von* assigns case to the possessor, *sein* and 's also assign case to the possessor, the difference being that the possessor is to the right of *von* but to the left of *sein* and 's. Structurally, *von*-possessives pattern vis-à-vis nominal possessives.

Despite these three differences, we could claim that all possessives are in the same position, Spec,DP. With some minor technical differences, this has been the standard account since Abney (1987). All above-mentioned authors, including Bhatt (1990: 223-224), Haider (1992: 315), and Fortmann (1996) analyze *von*-possessives with the *von*-phrase in Spec,DP and the definite article in D. More recently, Müller (2011: 46-47) makes the same kind of proposal:

- (31) [DP *von Peter* [D' *das* [NP *Gerücht*]]]
 by/of Peter the rumor
 'Peter's rumor'

We will see in the next section, that there are good reasons to believe that not all possessives are in the same pre-adjectival position.

To recap, we have seen that Possessor Doublings and Saxon Genitives allow no definite article but may occur with inflected (adjectival) *ein*. In contrast, *von*-possessives occur with definite or indefinite articles. Furthermore, possessors precede the nominal possessive morphemes but follow the preposition *von*. In brief, Possessor Doublings and Saxon Genitives pattern together in opposition to *von*-possessives. Accepting the discussion of the second type of

¹⁴ Weiß (2008:386) proposes that these instances involve structural case that is spelled out by a language-specific morphological case (see Sigurðsson 2004 for the discussion of abstract/deep vs. morphological/surface case). I already stated my doubts about structural case in section 2.2. However, if this alternative turns out to be correct, only minor changes need to be made.

ein, the data introduced this far can be accounted for by the traditional proposal that all these possessives are in Spec,DP.

4. Proposal: Splitting the DP-level in Two

In this section, I provide data showing that all possessives cannot be in the same position. As part of this discussion, I return to non-possessive PPs documenting that they pattern like *von*-possessives. I argue 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 that adopting a uniform underlying structure does not pose a problem for deriving the differences between the three types of possessives discussed here.

4.1. Two Noun Phrase-Internal Positions for Pre-adjectival Possessives

In the last section, I showed that Possessor Doublings and Saxon Genitives cannot be followed by an article, be it definite or indefinite. This was different for *von*-possessives, which must be. Besides articles, *von*-possessives can also be followed by possessive determiners (\emptyset indicates a null article):

- (32) 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
 ‘the/a/his/her book of Peter’s’
 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
 ‘the/a/his/her book of Peter’s’

The same syntactic options hold for non-possessive PPs:

- (33) a. $\{*\emptyset / \text{das} / \text{ein} / \text{sein} / \text{ihr}\}$ *Auto aus Italien*
 $\emptyset / \text{the} / \text{a} / \text{his} / \text{her}$ car from Italy
 ‘the/a/his/her car from Italy’
 b. *aus Italien* $\{*\emptyset / \text{das} / \text{ein} / \text{sein} / \text{ihr}\}$ *Auto*
 from Italy $\emptyset / \text{the} / \text{a} / \text{his} / \text{her}$ car
 ‘the/a/his/her car from Italy’

Comparing the (a)-examples to the (b)-examples, we can observe that the position of the PPs has no influence on the options of the determiners.¹⁵ To repeat, this is not the case for Possessor Doublings and Saxon Genitives, which cannot be followed by another determiner. In section 3,

¹⁵ Note that plural and mass nouns without an overt determiner are marked. They seem best with a pause between the PP and a stressed head noun:

- (i) a. ?? *Von Peter BÜCHER verkaufen sich leicht.*
 from Peter books sell REFL easily
 b. ?? *Aus Italien WEIN verkauft sich leicht.*
 from Italy wine sells REFL easily

we argued that possessives are in Spec,DP. Note now that the PPs in the (b)-examples are compatible with possessive determiners. It appears that PPs are followed by a full DP, definite or indefinite, but Possessor Doublings and Saxon Genitives are followed by a nominal of a smaller size. In other words, it appears that prepositional and nominal possessives are in different positions. This structural difference would immediately explain that higher *von*-possessives can be followed by different kinds of determiners. In contrast and assuming that only one element can be in the DP-layer (Roehrs to appear b), lower Possessor Doublings and Saxon Genitives are in complementary distribution with them.

Cases involving the quantifier *alle* ‘all’ confirm that the *von*-possessive is located higher than the DP-level. Note first that *alle* must precede the demonstrative indicating that *alle* is indeed in a high position (34a). When combined with *alle*, the *von*-possessive precedes the quantifier (34b-c):

- (34) a. (Alle) diese (*alle) Bücher sind teuer.
 all these all books are expensive
 ‘All these 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.’
 c. * Alle von Peter Bücher habe ich noch nicht gelesen.
 all of Peter books have I yet not read

One might claim that (34c) is ungrammatical as there is no article between the *von*-possessive and the head noun (cf. footnote 15). However, the example is worse and a pause and stress on the head noun does not make the example more felicitous. In fact, there is evidence that the position of the *von*-possessive in (34c) is the problematic factor. While perhaps not entirely perfect, it is clear that *von*-possessives are much better before than after *alle* when a definite article is present. Compare (35a) to (35b):

- (35) 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

As expected by now, Possessor Doublings and Saxon Genitives cannot precede *alle*:¹⁶

¹⁶ With Possessor Doublings, *alle* can precede the two possessive elements (ia) but surprisingly, also intervene between them (ib) (unlike (ia), *alle* cannot precede Saxon Genitives, something I discuss in the main text below):

- (i) a. ? alle Peter seine Bücher
 all Peter his books
 ‘all of Peter’s books’
 b. (?) Peter alle seine Bücher
 Peter all his books
 ‘all of Peter’s books’

- (36) a. * *Peter seine alle Bücher*
 Peter his all books
 b. * *Peters alle Bücher*
 Peter's all books

Again, this shows that *von*-possessives are in a position higher than the DP-level. In what follows, I will make this part of the discussion more formal claiming that there are two different pre-adjectival positions for possessives in German.

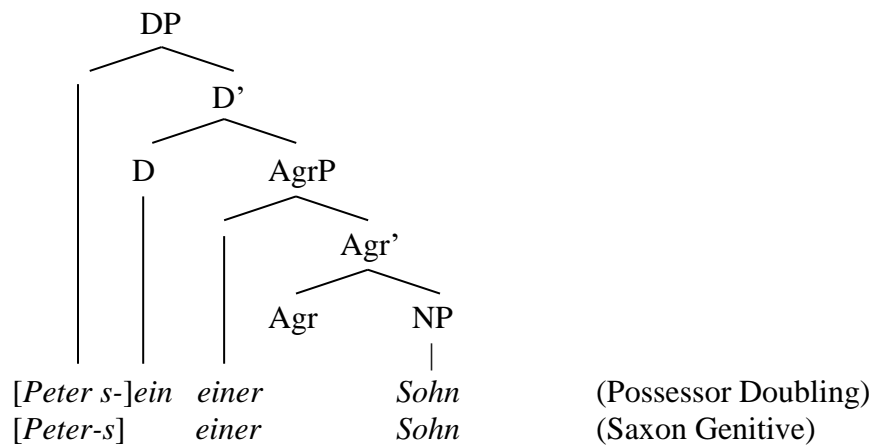
Recall that all three types of possessives discussed here form constituents with the larger noun phrase; for instance, these complex noun phrases can all precede a finite verb in second position. As hinted at above, the differences between Possessor Doublings and Saxon Genitives on the one hand and *von*-possessives on the other follow if Possessor Doublings and Saxon Genitives are lower in the structure but *von*-possessives are higher. I propose that the first two possessives are in Spec,DP (Abney 1987: 84-85, Bhatt 1990: 145-148, Lindauer 1995: 158). I assume that possessive determiners 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. This immediately explains the many morpho-syntactic similarities between *sein* and *ein*. Note that both elements are usually subsumed under the traditional term *ein*-words (see footnote 1). For inflected *ein*, I have suggested in section 3 that it is an adjectival element in a high specifier of the matrix nominal. With these considerations in mind, the structure of Possessor Doublings and Saxon Genitives is as follows:

Note that this reordering between the possessor and another determiner(-like) element is not freely available. Specifically, like *alle*, a demonstrative can also precede a possessive determiner (iia). However, the possessor can only intervene between them (iib-c):

- (ii) a. *diese seine Bücher*
 these his books
 'these books of his'
 b. ? *diese Peter seine Bücher*
 these Peter his books
 'these books of Peter's'
 c. * *Peter diese seine Bücher*
 Peter these his books

Given this restriction in (ii) (see also (42b) below, which involves an intervening focus particle), I will assume that the pattern in (ib) is special. Note that both examples in (i) are slightly marked. I tentatively suggest that *Peter* separates two inflected determiner type of elements in (ia), which leads to the marked status. The example in (ib) has both of these elements together but *Peter* has presumably undergone some kind of late reordering with *alle*, yielding adjacency between the two inflected elements. That this is not possible with *diese* in (ii) seems to suggest that this is indeed not a freely available, syntactic operation.

(37) *Structure of Possessor Doublings and Saxon Genitives*

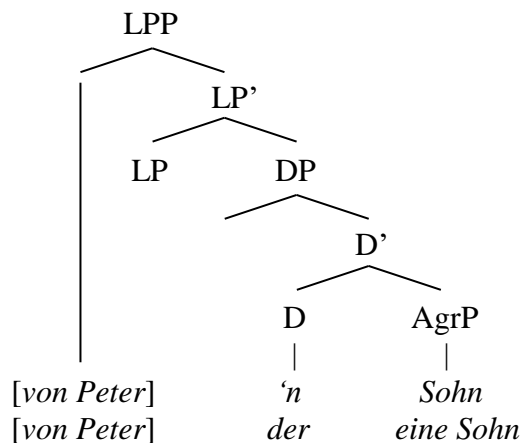


As for *von*-possessives, I observed above that these possessives seem to be followed by a full DP. Recall from the introduction that prepositional possessives can move to Spec,TopP in Bulgarian (Giusti 1996). Similarly, Giusti & Iovino (2016) analyze the structure of certain Latin noun phrases that show nominal-internal displacement or extraction out of the noun phrase. Focusing on nominal-internal movement, these authors provide an example where a possessive is clearly higher than a demonstrative, an element usually assumed to be in the DP-layer. They conclude that these possessives move to -- what they call -- the Left Periphery Phrase (their example (26c) is simplified here):

- (38) a. *Caesaris hic ... cursus* (Latin)
 Caesar.GEN this march
 'this march of Caesar's'
 b. [LPP *Caesaris*_i [DP *hic* ... [NP *t*_i *cursus*]]]

Giusti & Iovino (2016: 238ff) state that the label LPP is neutral as regards pragmatic interpretations of emphasis, focalization, and the like. They argue that movement into this phrase is triggered by a discourse feature (the latter could be implemented by the Contrast-feature as in Giusti 2008). I will follow this type of proposal here. I propose that *von*-possessives in German are in Giusti & Iovino's LPP:

(39) *Structure of von-possessives*



Comparing (37) to (39), we wind up with a split-DP layer: DP and LPP (see also Haegeman 2004: 238 for Hungarian extractable possessives). There is more evidence that Possessor Doublings and Saxon Genitives pattern together in opposition to *von*-possessives.

Under neutral conditions, nominal and prepositional possessives pattern differently with regard to stress. Possessor Doublings and Saxon Genitives have nuclear stress on the head noun of the matrix nominal. This is indicated by an accent mark in (40a-b). In contrast, *von*-possessives and other PPs have topicalization or focal stress on the head noun of the PP. This type of stress is marked by capital letters in (40c-d) ((40a) is from Eisenberg & Smith 2002: 124, (40c) is from Lattewitz 1994: 145):¹⁷

- (40) a. *Benedikts Réttung*
Benedict's rescue
'Benedict's rescue'
- b. *Benedikt seine Réttung*
Benedict his rescue
'Benedict's rescue'
- c. *von der STADT die Zerstörung*
of the city the destruction
'the city's destruction'
- d. *aus ITALIEN der Wein*
from Italy the wine
'the wine from Italy'

I believe that the different stress pattern observed in (40a-b) vs. (40c-d) gives further credence to the proposal that these possessives are in different positions. Unlike nominal possessives, PPs move to Spec,LPP to check a discourse feature.

¹⁷ Grohmann & Haegeman (2003: 57) assume that topicalized or focused possessors of Possessor Doublings move to Spec,TopP. Given that Saxon Genitives can also be optionally stressed, I assume that both Possessor Doublings and Saxon Genitives are in Spec,DP, stressed or unstressed.

Yet another difference can be observed with focus particles such as *nur* ‘only’ or *sogar* ‘even’. To set the stage, focus particles can precede noun phrases including possessives:

- (41) a. *Ich möchte nur (Peters) Autos.*
 I want only Peter’s cars
 ‘I want only Peter’s cars.’
 b. *Ich möchte nur (Peter seine) Autos.*
 I want only Peter his cars
 ‘I want only Peter’s cars.’
 c. *Ich möchte nur (von Peter) die Autos.*
 I want only of Peter the cars
 ‘I want only Peter’s cars.’
 d. *Ich möchte nur (aus Italien) den Wein.*
 I want only from Italy the wine
 ‘I want only the wine from Italy.’

A difference emerges when the focus particles are in a lower position. They cannot follow Saxon Genitives (42a) and they cannot follow the possessor or the entire Possessor Doubling (42b). In contrast, they can follow the *von*-possessive (42c) and other prenominal PPs (42d):

- (42) a. *Ich möchte Peters (*nur) Autos.*
 I want Peters only cars
 b. *Ich möchte Peter (??nur) seine (*nur) Autos.*
 I want Peter only his only cars
 c. *Ich möchte von Peter nur die Autos.*
 I want of Peter only the cars
 ‘I want only the cars of Peter’s.’
 d. *Ich möchte aus Italien nur den Wein.*
 I want from Italy only the wine
 ‘I want only the wine from Italy.’

If we assume that focus particles can adjoin to DPs or LPP, the above data follow. Note that examples like (42c-d) can be in preverbal position in the clause showing that they are indeed constituents (again, the examples are slightly marked presumably because there are two stressed elements in the noun phrase: the topicalized possessor and the focused head noun):

- (43) a. ? *Von Peter sogar die Autos werden versteigert.*
 of Peter even the cars are auctioned
 ‘Even the cars of Peter’s are auctioned off.’
 b. ? *Aus Italien sogar der Wein ist teuer.*
 from Italy even the wine is expensive
 ‘Even the wine from Italy is expensive.’

In sum, stress inside the noun phrase and the distribution of focus particles provide more evidence that Saxon Genitives and Possessor Doublings pattern together vis-à-vis prepositional phrases.

At the beginning of this section, we have seen that *von*-possessives have more options with regard to other determiners in the DP-layer. However, it is worth pointing out that combinations of *von*-possessives with demonstratives like *dieses* ‘this’ and Saxon Genitives like *Marias* ‘Mary’s’ are degraded (for the cases involving Saxon Genitives, see Haider 1992: 315):

- (44) a. *{dieses / Marias} Buch von Peter*
 this / Mary’s book of Peter
 ‘this/Mary’s book of Peter’s’
 b. *von Peter {??dieses / *Marias} Buch*
 of/from Peter this / Mary’s book
 c. *aus Italien {??dieser / *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 Saxon Genitives are 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 degradedness would immediately follow from the assumption that only one phrase can occupy Spec,DP, which would entail that the preposed PPs are in Spec,DP after all.

Note, however, that the degraded example with the demonstrative is not completely ungrammatical. Thus, I believe that it is more likely that this is a semantic restriction. That this is plausible can be observed when a stressed emotive adjective is added (45a), or when the *von*-possessive followed by *dieses* is conjoined with a *von*-possessive followed by another demonstrative (45b):¹⁸

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

Turning to Saxon Genitives like *Marias*, this seems to be a special case. Even with contrastive stress, these instances are far from perfect:

- (46) 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

¹⁸ The demonstrative *jener* ‘that’ has a fairly restricted distribution in Modern German. It is typically used only with a discourse-deictic function.

Changing the stress pattern by adding an emotive adjective like *verDAMMte* ‘damn’ will not make the examples better. Note in this regard that these cases involving Saxon Genitives are also worse than stressed possessive determiners (cf. (10b) above).

The reason why *Marias* is worse than *dieses* might have to do with the fact that an element in the DP-layer (the possessive) must share agreement features with the head noun when another element (*all/e*) precedes it (cf. Bayer 2015, also Roehrs 2018). This is not the case for Saxon Genitives (data adopted from Haider 1988: 53).

- (47) a. *all(e) ihre Autos*
all her cars
‘all her cars’
b. * *all(e) Marias Autos*
all Mary’s cars

If this is on the right track, then there is an additional factor that makes intervening Saxon Genitives worse than demonstratives.¹⁹

With this in mind, we may state now that indexical elements like demonstratives under neutral conditions and proper name possessives more generally cannot follow *von*-possessives. In section 5, I will suggest that *von*-possessives move to their positions on the left. One could tentatively state that these elements make the association of the preposed element with its base position harder (although the details of this idea remain to be worked out).

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 can be argued to have the same abstract internal structure. The possessive-internal differences only hold on the surface resulting from movement of the possessor and different heads merged in the possessive structure. To the extent that this is correct, this is, I believe, a very attractive feature of the proposal.

In order to determine the inner structure of possessives, it is important to note that possessives as a whole can also occur postnominally. Due to the composite structure of *s-ein* in German, postnominal Possessor Doublings are illustrated with Norwegian (recall from section 2.2 that *hans* alternates with ‘s’):²⁰

¹⁹ A reviewer makes the interesting proposal that *Maria* is located above *alle* and ‘s below *alle*. In other words, *Maria* would be in the same position as the preposed PP. While this would, among others, also explain (47b), it runs counter the fact that *Maria* and ‘s form a constituent as evidenced by the fact that Saxon Genitives can occur in pre- and postnominal position (see section 4.2).

²⁰ Cases like *das Auto Annas* ‘Anna’s car’ are sometimes given as marked (Lattewitz 1994: 123, cf. also Lindauer 1998: 125). Eisenberg & Smith (2002: 125) and Duden (2007: 366) state that increasing length of the postnominal proper name makes these possessives more acceptable (see (48b) in the main text). As expected, a prenominal Saxon Genitive is also possible, as shown in (ia). Furthermore, the example in (ib) shows a googled instance where the Saxon Genitive must be in postnominal position and cannot replace the genitive article *der* appearing in prenominal position (ic):

(i) a. *Magdalenas Auto*
Magdalena’s car
‘Magdalena’s car’

- (48) a. *bil-en hans Per* (Norwegian)
 car-the his Peter
 ‘Peter’s car’
 b. *das Auto Magdalenas* (German)
 the car Magdalena’s
 ‘the car of Magdalena’s’
 c. *das Auto von Peter*
 the car of Peter
 ‘the car of Peter’s’

Note that postnominal possessives argue against the assumption that possessive morphemes such as *hans* ‘his’ (in Norwegian), *’s* or *von* must be base-generated in the DP-layer (see Krause 1999: 202 for such a claim for *’s*). Now, this positional option and the above-mentioned similarities follow if one makes the theoretically desirable assumption that all possessives have the same basic internal makeup and can, at least in principle, occur in the same positions within the larger nominal structure.

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. There are several options. The simplest version of this proposal is given in (49). The prepositional possessive morpheme takes its complement to the right (49a) but the nominal possessive morphemes take their complements to the left (49b):²¹



The head under POSS determines the categorial nature of POSSP, prepositional vs. nominal. Furthermore, to avoid the postulation of two case positions inside the noun phrase, I assume that the head under POSS assigns case to the possessor. In section 3, I proposed that *von* and *sein*

-
- b. *einige der bedeutendsten Werke Johann Wolfgang von Goethes*
 some the.GEN important.SUPL works Johann Wolfgang von Goethe’s
 ‘some of the most important works of Johann Wolfgang von Goethe’s’
 c. ?? *einige Goethes bedeutendster Werke*
 some Goethe’s important.SUPL.GEN works
 ‘some of Goethe’s most important works’

Note that Saxon Genitives must take a strong ending on the following adjective (ic). The English equivalent is completely fine, which presumably has to do with the presence of the genitive marker *of*.

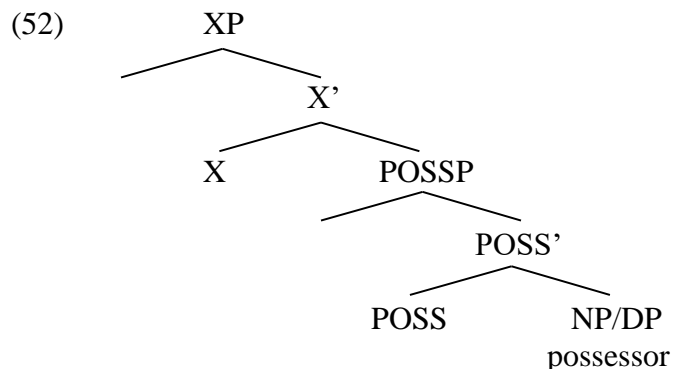
²¹ There seem to be some arguments that the possessor and the possessive determiner of Possessor Doublings do not form a constituent (e.g., certain analyses of Possessor Raising constructions, also (ib) in footnote 16). In my view, these are not conclusive (for some discussion, see Roehrs 2013). In addition, we have seen many similarities between Possessor Doublings and Saxon Genitives and even some commonalities between nominal and prepositional possessives. I believe it is theoretically desirable to derive all possessives from one underlying structure. If, however, Possessor Doublings turn out to be non-constituents, then many of the observations and claims discussed above still carry over. I leave this potential issue for future research.

POSSP itself is base-generated in the complement position of the head noun (section 5). It can stay in situ there or move left to check a definiteness feature on D or a discourse feature on LP of the larger noun phrase. Abstracting away from certain restrictions, POSSP as a whole can thus appear postnominally or prenominally, which can schematically be illustrated as follows:

- While this simple POSSP structure seems attractive at first glance, there are also some issues. First, note that the structures are not uniform with the complement position to the right or to the left of the POSS head. It is not clear why nominal possessive morphemes should take the possessor on the left. Second, assuming Spec-head agreement to account for “definiteness spread” (Alexiadou 2005), it is unclear how POSSP in (49b) can inherit definiteness from the possessor in complement position. In other words, it is not clear why *Peter’s car* as a whole must have a definite interpretation where *Peter* passes up definiteness to POSSP and POSSP, in turn, passes up definiteness to the matrix DP (note that if a technical solution is devised, it must not apply to (49a)). Third, there is evidence that possessive structures can be more complex. For instance, possessors can involve quantifier float (51a-b):

- As will become clear below, Saxon Genitives in German cannot involve complex possessors of this type. Thus complex structures as in (51) cannot be illustrated with Saxon Genitives. Abstracting away from that qualification, it is clear that the possessor can be displaced. Accepting Bošković's (2004) proposal of quantifier float, the example in (51b) shows clearly that the possessor moves inside the possessive construction.²² Hence, the latter must be more complex. Given these issues with the simple option in (49), I propose that the possessive structure is more complex. Similar to adjectives (Corver 1997) and demonstratives (Leu 2015, Roehrs 2010), I propose that POSS builds an extended projection (Roehrs 2013). This means that X can vary between prepositional and nominal depending on the head under POSS (Grimshaw 1991). Note that the possessor can be of different sizes, NP and DP, as explicated further below in the text:

25



Given the complexity of the *von*-possessive in (51b), I assume that the possessive morpheme *von* moves to (prepositional) X and the possessor stays to its right (53a).²³ As for the nominal possessives, I assume that the (nominal) X is similar to D in having a definiteness feature that must be checked. Consequently, the possessor moves to Spec,XP. Establishing Spec-head agreement makes XP as a whole definite in interpretation. This movement also derives the correct word orders for the nominal possessives (53b-c). For possessive determiners without a possessor, I assume the presence of the null possessor *pro* (53d).²⁴

- (53)
- a. [XP *von*_k+X [POSSP t_k [DP *dem Peter*]]]
 - b. [XP *Peter*_i X [POSSP -s [NP t_i]]]
 - c. [XP *dem Peter*_i X [POSSP *s-(ein)* [DP t_i]]]
 - d. [XP *pro*_i X [POSSP *s-(ein)* [DP t_i]]]

²³ In view of the data in (51), the structure in (52) might actually be more complex but I will refrain from discussing this in detail here.

²⁴ Some remarks are in order here. First, *pro* can only occur with *s-ein*. With *'s*, *pro* is ungrammatical:

- (i) * *pro's Auto*

This ungrammaticality follows from the requirement that suffixes require an overt host.

Second, as is well known, German also has genitive possessives in postnominal position (iia). As Bhatt (1990: 114-116) and Duden (2007: 366), among others, have pointed out, such genitives in prenominal position are usually only found in set phrases, in literary texts, or as a certain stylistic device (note that they sound best in the masculine and neuter, which are clearly marked for genitive). For most people, examples such as (iib) are marked sounding somewhat archaic:

- (ii)
- a. *das erste Auto des Lehrers*
the first car the.GEN teacher.GEN
'the teacher's first car'
 - b. ?? *des Lehrers erstes Auto*
the.GEN teacher.GEN first car

For the sake of simplicity, I have abstracted away from these cases here focusing on prenominal possessives. I believe though that they find a possible explanation in the current account.

In older varieties of German, the distribution of genitives was fairly free. This included cases like (iib), topicalization, and extraposition. This is no longer possible in modern German. One could tentatively suggest that in the older varieties, the noun could directly license its genitive complement and thus its displacement. However, with the reanalysis of the old genitive suffix *-s* as the possessive morpheme *'s*, the structure of the POSSP was changed such that *'s* now formed the head of that phrase. In other words, it is no longer the noun that licenses the genitive complement but the POSS head. If one were to assume further that there is a null counterpart of *'s* with genitives as in (iib) today, then one could state that this null element is only licensed under adjacency with the head noun. This would yield the very restricted distribution of these possessive genitives today.

The difference between (53c) and (53d) lies in the overtiness of the possessor, the possessive determiner being the same. Bearing in mind that possessive determiners are composite forms restricted to occurring adjacent to the matrix D, the constituent structures in (55a-b) can surface in different phrasal positions in the larger nominal structure, updating POSSP in (50) above as XP.²⁵

For completeness' sake, let us discuss the internal differences between Saxon Genitives and Possessor Doublings. Krause (1999: 203) claims that the possessive morphemes 's and *sein* are allomorphs spelled out depending on the size of the possessor. For her, the relevant constraint to explain the different possessive morphemes in (53b-c) above involves one (prosodic) word in (54a), but more than one in (54b):

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

While (54a) above is basically the same in my dialect (55a), the absence of the dative determiner in (54b) above sounds much better to me. In fact, the article is truly optional for me with proper names in that example (55b) (also Bhatt 1990: 145, Zimmermann 1991: 34). This means that Krause's prosodic condition is not enough to explain (55b): without the article, (55b) is like (55a) as the difference between the two with regard to the complexity of the possessor has disappeared:

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

As a consequence, I propose two conditions. In addition to Krause's prosodic constraint, which will become relevant below, I argue for a syntactic one (*pace* Krause 1999: fn. 13). The nominal morphemes are not taken to be spell-outs of the same head but different syntactic heads merged in the same position (under POSS).

Starting with the latter, there are two components to the syntactic condition. First, I begin with the traditional classification according to which nouns can be categorized into two basic types. Specifically, it is well known that singular common nouns require a determiner to function

²⁵ A reviewer makes the intriguing suggestion that POSSP equals KP and XP is (a second, possessive-internal) LPP. Given my current understanding, I would like to retain the labels in the main text: If the Kase Phrase (KP) is always above a DP, then this does not extend to my analysis of Saxon Genitives, which are NPs (see below). As for LPP, note that the stressed possessor with *von*-possessives follows the preposition; that is, it stays in situ unlike the whole *von*-phrase in the matrix nominal. Furthermore, the unstressed possessor of *sein* must raise to precede the possessive morpheme. So in these instances, LPP would be disconnected from stress/discourse information. I believe these issues are resolved if nominal XP is similar to the matrix DP as discussed in the main text.

as subject arguments (56a). In contrast, proper names do not (56b). Certain kinship terms pattern like regular proper names (56c):

- (56) a. * *Sohn ist nach Hause gekommen.*
 son has to home come
 b. *Peter ist nach Hause gekommen.*
 Peter has to home come
 ‘Peter has come home.’
 c. *Vati ist nach Hause gekommen.*
 dad has to home come
 ‘Dad has come home.’

According to Longobardi (1994), proper names can undergo N-to-D raising inside DP (at LF in German) when they are in argument position of a sentence. Returning to (56), singular count nouns require a determiner in D (57a) but proper names do not (57b-c) (for details, see Longobardi 1994):

- (57) a. * [DP D *Sohn*]
 b. [DP *Peter*_i+D t_i]
 b. [DP *Vati*_i+D t_i]

This leads to the following bipartite distinction of nouns:²⁶

- (58) a. Non-LF-raising Nouns
 Sohn, Tochter, Stuhl,
 son, daughter, chair
 b. LF-raising Nouns
 Peter, Vati, Mutti, Opa, Oma,
 Peter, dad, mom, grandfather, grandmother

Turning to possessives, the generalization seems to be that all LF-raising nouns can occur in Saxon Genitives and Possessor Doublings (see also Lattewitz 1994: 144 fn. 2).²⁷

- (59) a. * *Sohns Auto*
 son’s car
 b. *Peters Auto*
 Peter’s car
 ‘Peter’s car’

²⁶ Unlike *Vati* ‘dad’ and *Mutti* ‘mom’, *Vater* ‘father’ and *Mutter* ‘mother’ are, in my dialect of German, slightly marked in subject position and as possessors. I will abstract away from this minor difference.

²⁷ Geographical names like *Deutschland* ‘Germany’ seem to be special: they are fine in clauses but awkward in Possessor Doublings:

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

It seems clear that Possessor Doublings are subject to an additional condition, something I will not investigate here.

- c. *Vatis Auto*
dad's car
'dad's car'
- (60) a. * *Sohn sein Auto*
son his car
- b. *Peter sein Auto*
Peter his car
'Peter's car'
- c. *Vati sein Auto*
dad his car
'dad's car'

The derivations for (59) and (60) lead us to the second component of the syntactic condition. I propose that Saxon Genitives involve possessors the size of NPs but that Possessor Doublings involve possessors the size of DPs. In other words, 's selects a NP but *s-ein* takes a DP. As seen above, singular common nouns in the clause project a DP requiring a determiner in D. Let us assume that this is more generally so. With D absent, this leads to a problem with these possessors in Saxon Genitives (61a). In contrast, I assume that LF-raising of proper names occurs only if a DP is projected; if not, these types of nouns can stay in situ. In other words, these nouns can involve either an NP or DP.²⁸ This allows LF-raising nouns to occur in Saxon Genitives (61b-c):

- (61) a. * [[_{NP} *Sohn*]-s] *Auto*
son's car
- b. [[_{NP} *Peter*]-s] *Auto*
Peter's car
- c. [[_{NP} *Vati*]-s] *Auto*
dad's car

The derivations for (60) are given in (62). Again, note that singular common nouns require a determiner in D:

- (62) a. * [[_{DP} D *Sohn*] s-] *ein Auto*
son his car
- b. [[_{DP} *Peter*_i+D t_i] s-] *ein Auto*
Peter his car
- c. [[_{DP} *Vati*_i+D t_i] s-] *ein Auto*
dad his car

²⁸ Here are some examples where proper names do not project DPs:

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

Now, if DPs are indeed projected in Possessor Doublings, then we expect that possessors with an article are possible. This is indeed the case. In very colloquial registers, this includes non-LF-raising nouns (63a):

- (63) a. [[_{DP} *dem Sohn*] *s-*] *ein Auto*
 the.DAT son his car
 b. [[_{DP} *dem Peter*] *s-*] *ein Auto*
 the.DAT father his car
 c. [[_{DP} *dem Vati*] *s-*] *ein Auto*
 the.DAT dad his car

As seen above, possessors in Saxon Genitives cannot involve a determiner (cf. (55a)). This follows from the claim that Saxon Genitive possessors must be NPs in German.

The second component of the syntactic condition finds confirmation from the fact that certain nominals can be either NP or DP but others must project a DP. For instance, similar to *Peter*, proper names like *England* ‘England’ can involve NPs or DPs with the qualification that they do not tolerate a definite article (i.e., **das England* ‘the England’). However, proper names like *die Ukraine* ‘the Ukraine’ require the presence of a proprial determiner; that is, they must project a DP:

- (64) a. England ist interessant.
 England is interesting
 ‘England is interesting.’
 b. ??(Die) Ukraine ist interessant.
 the Ukraine is interesting
 ‘The Ukraine is interesting.’

While proper names as NP can function as possessors in Saxon Genitives (65a), DP proper names sound marked (65b-c):

- (65) a. *Englands Truppen*
 England’s troops
 ‘England’s troops’
 b. ?? *Ukraines Truppen*
 Ukraine’s troops
 c. ?* *der Ukraines Truppen*
 the.GEN Ukraine’s troops

Second, pronouns are DPs. As such, they are too large as possessors in Saxon Genitives but fine as possessors in Possessor Doublings.²⁹ Notice that (66b) requires stress on the pronoun and is part of a very colloquial register:

²⁹ Genitive pronouns have a very restricted distribution in German. A possible but formal-sounding example is *Wir erinnern uns seiner* ‘We remember him.’ Note also that (66a) is prosodically fine (cf. Krause 1999: fn. 17) and its ungrammatical status must be explained differently, as is proposed here.

- (66) a. * *seiners Auto*
 he.GEN's car
 b. *IHM sein Auto*
 him his car
 '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 syntactic restrictions. However, Krause's prosodic constraint still seems to be needed for the complex possessor in the Saxon Genitive in (67a). Other cases of -- what appear to be -- complex possessors also occur in this context (67b):

- (67) a. *Herrn Schmidts Rede*
 mister.GEN Schmidt's speech
 'mister Schmidt's speech'
 b. *Klein-Mariás Katze*
 Little.Mary's cat
 'Little Mary's cat'

For the current proposal to be correct, all of these possessors must involve NPs. This seems plausible. Krause (1999: 205) takes (67a) to be (some kind of) a compound. Presumably, these cases are copulative compounds where both elements are stressed but the rightmost element has primary stress (see Fagan 2009: 42, Zwart 2003: 389). As for (67b), note that Gallmann (1997: 81) has analyzed instances like *Klein-Maria* as heads. This makes these complex cases compatible with the claim that possessors in Saxon Genitives must be NPs.

5. Possessives: Base-generation vs. Movement

Returning to the two different prenominal positions for possessives, I documented in section 3 that nominal possessives (Possessor Doublings, Saxon Genitives) cannot occur with a determiner -- both elements are in complementary distribution -- but prepositional possessives must be followed by a determiner. I proposed that Possessor Doublings and Saxon Genitives surface in Spec,DP but *von*-possessives are in Spec,LPP. 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) common nouns like *Auto* 'car', result nouns like *Portrait* 'picture', and event nouns like *Eroberung* 'conquest' (Grimshaw 1990). Considering the latter two types of nouns, it appears that pre-adjectival positions of possessives are locations that possessives move into.

Starting with common head nouns, all three possessive constructions are fine in prenominal position (68). 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:

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

It has been claimed that possessives with common nouns can be base-generated in a higher position or move there. Arguments have been given for both. Alexiadou (2003) notes that among others, alienable possessives in Greek can occur with several definite determiners (often called determiner spread) while inalienable possessives cannot. Alexiadou argues that alienable possessives are base-generated higher in the nominal structure (PossP) than inalienable, inherent possessives (NP). In contrast, in order to explain the absence of the suffixal determiner on the noun in Norwegian, Julien (2005) argues that possessives are base-generated low in the structure. When they move up, they prevent the occurrence of the suffixal determiner. As is clear, both analyses make good points. However, such argumentation cannot easily be replicated in German as the latter language does not have those kinds of morpho-syntactic alternations. Given these two potential options, it can be pointed out that possessives with common nouns do not seem to be telling as regards the question of base-generation vs. movement.

Continuing with result nouns, they easily tolerate two dependents. Considering certain Binding facts, Bhatt (1990: 70) states that while (69a) may not be acceptable to every speaker, it is clear that (69b) is not possible:

- (69) a. [*von sich_i*] *das Portrait des Malers_i*
 of himself the picture of.the painter
 'the picture by the painter of himself'
- b. * [*von ihm_i*] *das Portrait des Malers_i*
 of him the picture of.the painter

Given that anaphors must be bound by a c-commanding antecedent, this provides the first indication that preposed PPs originate low in the structure.

Finally, consider event nouns. Similar to result nouns, note first that these possessives have clausal interpretations like agent and patient: *Cäsar* functions as the agent but *Gallien* is the patient in (70). 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:

- (70) a. *die langwierige Eroberung Galliens {durch/*von} Cäsar*
 the lengthy conquest Gaul's by / of Caesar
 'the lengthy conquest of Gaul by Caesar'

- b. *die langwierige Eroberung von Gallien durch Cäsar*
 the lengthy conquest of Gaul by Caesar
 ‘the lengthy conquest of Gaul by Caesar’

Either the agent argument or the patient argument are fine as prenominal Saxon Genitives. Compare (71a-b) to (71c):³⁰

- (71) a. *Cäsars langwierige Eroberung Galliens*
 Caesar lengthy conquest Gaul’s
 ‘Caesar’s lengthy conquest of Gaul’
 b. *Cäsars langwierige Eroberung von Gallien*
 Caesar lengthy conquest of Gaul
 ‘Caesar’s lengthy conquest of Gaul’
 c. *Galliens langwierige Eroberung*
 Gaul’s lengthy conquest
 ‘Gaul’s lengthy conquest’

Turning to prepositional possessives, *durch*-possessives as in (72a) appear to be ungrammatical (also Lindauer 1995: 74). However, this seems to be a special case. When the patient argument is a PP, the example is much better (72b). When the patient PP is in prenominal position, the example is completely fine (72c):

- (72) a. ?* *durch Cäsar die langwierige Eroberung Galliens*
 by Caesar the lengthy conquest Gaul’s
 b. (?) *durch Cäsar die langwierige Eroberung von Gallien*
 by Caesar the lengthy conquest of Gaul
 ‘the lengthy conquest of Gaul by Caesar’
 c. *von Gallien die langwierige Eroberung*
 of Gaul the lengthy conquest
 ‘Gaul’s lengthy conquest’

Given that (72b-c) are possible, I will put (72a) aside. Presumably, the prenominal prepositional possessive is, for some reason, incompatible with a postnominal Saxon Genitive.³¹

³⁰ Possessor Doublings seem to be marked with event nouns:

- (i) a. ?? *Cäsar seine langwierige Eroberung Galliens*
 Caesar his lengthy conquest Gaul’s
 b. ?? *Cäsar seine langwierige Eroberung von Gallien*
 Caesar his lengthy conquest of Gaul
 c. ?* *Gallien seine langwierige Eroberung*
 Gaul its lengthy conquest

This hints at a possible restriction as regards possessum head nouns (and an additional stylistic clash). This adds to the lexical restriction briefly mentioned in footnote 27.

³¹ Haider (1992: 321-322) seems to claim that all these examples are ungrammatical. Note, however, other authors find examples such as (72b) and (72c) acceptable (Eisenberg & Smith 2002: 124 and Zimmermann 1991). Also, it is worth pointing out that postnominal Saxon Genitive are generally quite restricted. With common nouns, they seem to be impossible when a PP precedes the DP:

- (i) a. * *von Peter das Buch Marias*

Unlike with common nouns, a consensus seems to be emerging that similar to verbs, event nouns assign their theta roles in a local fashion, that is, low in the structure (e.g., Grimshaw 1990, Valois 1991, Lindauer 1995, Alexiadou 2001).³² For simplicity's sake, let us assume then that all possessives, including those of common nouns, are base-generated low in the nominal structure (inside NP) and move to their respective surface positions if they appear to the left of the adjective. Consider the three surface positions of possessives (cf. (50)): inside NP, Spec,DP, and Spec,LPP. Recall again that the proposal above claimed that nominal possessives appear in Spec,DP (but not Spec,LPP) and prepositional possessives surface in Spec,LPP (but not Spec,DP).

Beginning with the in-situ position, all possessives can surface inside NP (except for Possessor Doublings in German). Furthermore, I assume that D of the matrix nominal has a definiteness feature to check. With possessives low in the structure, articles and demonstratives can check this feature on D and surface in the DP-layer. In addition, I assume that nominal possessives like Possessor Doublings and Saxon Genitives can check this feature. Thus, if ordinary determiners are not part of the derivation, nominal possessives move to Spec,DP checking this feature on D. Prepositional possessives cannot license D in this way as they involve no definiteness feature. This explains why only Possessor Doublings and Saxon Genitives may surface in Spec,DP.

As for Spec,LPP, LP has only a discourse (but no definiteness) feature to check. 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,LPP as shown above. In order to rule out nominal possessives, I propose that movement from Spec,DP to Spec,LPP is presumably too short (i.e., anti-local). Note that this is the same structural context for anti-local movement as in Grohmann & Haegeman (2003), namely movement within the discourse domain, with the difference that it cannot be “rescued” by Copy Spell-out. Nominal possessives cannot move to Spec,LPP in one fell swoop either as they have to check the definiteness feature on D on their way from NP to LPP. This rules out Possessor Doublings and Saxon Genitives in Spec,LPP. Unlike nominal possessives, prepositional possessives can move to Spec,LPP in one fell swoop as they have no definiteness feature to check on D.

Note that this account leaves room for other elements to be in Spec,LPP (see also section 6.2 for some cross-linguistic remarks). Fortmann (1996: 60, 97) points out that pronouns, including interrogative pronouns, can precede their related nominal (73a-b). Haider (1992: 323) claims that relative clauses can precede their antecedent. I provide one of Haider's examples as part of a full sentence (73c):

-
- b. * from Peter the book Mary's
 aus Italian der Wein Marias
 from Italy the wine Mary's

Replacing the definite article with *Marias* and moving the PP in postnominal position in (i) yields perfectly good examples (e.g., *Marias Buch von Peter* ‘Mary's book from Peter’). As far as I have been able to establish, postnominal Saxon Genitives and prenominal possessives/PP can only cooccur if the possessum is a theta noun and the prenominal element is a second Saxon Genitive. It seems clear that this empirical domain requires a more detailed investigation. This is beyond the scope of this paper. What is important here is that the PP can occur in prenominal position with theta nouns as in (72b) and (72c).

³² As mentioned in the introduction, some dialects only allow preposed PPs if the head noun is a kinship or body part term. It has been noted that event nouns and kinship/body part terms enter into a tighter relation with the possessive than common nouns (e.g., Alexiadou 2003). Thus, this restriction might be due to an additional requirement that in some dialects, the head noun has to license the displacement of the PP.

- (73) a. *Darüber eine Unterrichtung wurde verhindert.*
 there.about a notification was prevented
 ‘A notification about that was prevented.’
 b. *Wohin eine Reise hat er unternommen?*
 where a trip has he made
 ‘Where did he go on a trip?’
 c. *Der das behauptet hat, der Mann ist in Berlin.*
 who that claimed has the man is in Berlin
 ‘The man who has claimed that is in Berlin.’

To me, (73a) sounds slightly marked. Note though that I found a few, quite natural examples on the internet involving preposed deictic reinforcers (e.g., *da drüben die Pauker* ‘the teachers over there’). In contrast, (73b-c) sound more marked. I have not seen them mentioned or discussed anywhere else with the notable exception of Bhatt (1990: 225-226). She concludes that (73c) is only possible as left dislocation adding *der* between *Mann* and *ist* (but not with regular Verb Second). To the extent that they are possible, we could say that all the cases in (73) cannot surface in Spec,DP as they cannot check the definiteness feature on D. Consequently, they can only surface in Spec,LPP.

Given these assumptions, all possessives can surface inside NP, a base-generated position. In addition, definite possessives can move to Spec,DP (but not Spec,LPP) and non-definite elements can move to Spec,LPP (but not Spec,DP). As for the latter, the current proposal reconciles claims in Müller (2011: 46-47), who argues that *von*-possessives undergo movement to Spec,DP, and Giusti & Iovino (2016), who claim that Spec,LPP is a landing site for genitive possessives in Latin. With a determiner following, both cases receive the same basic account. The next section briefly discusses some cross-linguistic variation.

To sum up, making the general assumption that all possessives are base-generated low in the structure, there is one main ingredient to account for the distribution of possessives in the left periphery: unlike nominal possessives, PPs and other non-definite elements cannot check the definiteness feature on D.

6. Discussion

The focus of this paper has been on the morpho-syntactic similarities and differences of the three prenominal possessives in German with special emphasis on *von*-possessives. This section briefly compares the left periphery of the noun phrase to that of the clause and it provides a cross-linguistic glimpse of possibly related constructions in other languages. This discussion is not meant to be comprehensive.

6.1 Brief Comparison of the Left Periphery in the noun phrase and clause

One of the most robust generalizations in German is that the finite verb occurs in second position in main clauses. If one were to interpret the determiner similarly to the finite verb, both (74a) and (74b) would involve a X-Second type of distribution where X ranges over verbs and determiners:

- (74) a. *Von Peter hat sie mir erzählt.*
 of Peter has she me told
 ‘She told me about Peter.’
 b. *von Peter das Haus*
 of Peter the house
 ‘Peter’s house’

That the noun phrase might have such a constraint seems to be confirmed by the fact that two PPs cannot precede the determiner, neither with common nor with result nouns:

- (75) a. ?? *Auf dem Tisch von Peter die Vase ist teuer.*
 on the table of Peter the vase is expensive
 ‘Peter’s vase on the table is expensive.’
 b. ?? *Von Peter auf dem Tisch die Vase ist teuer.*
 of Peter on the table the vase is expensive
- (76) a. *? *über Maria von Peter das Buch*
 about Mary by Peter the book
 ‘the book by Peter about Mary’
 b. ?? *von Peter über Maria das Buch*
 of Peter about Mary the book

X-Second type of effects follow straightforwardly from a Spec-head relation (for the clause, see den Besten 1977) where the preposed element is in the specifier and the finite verb or determiner is in the head position of the same phrase. However, we argued above that determiners are in D (not LP). In other words, there is no simple Spec-head relation explaining this distribution in the noun phrase.³³ Indeed, we have seen that *all* ‘all’ can intervene between the PP and the determiner and that the determiner itself can be a phrasal element (e.g., possessive determiner).

Turning to other potential commonalities, Bastos-Gee (2011) argues for a full parallelism in topicalization between the clause and noun phrase in Brazilian Portuguese (for general background discussion, see Aboh *et al* 2010). She discusses three properties, which, in German, are either not obligatory (comma intonation) or cannot be replicated (preposition dropping, possibility of resumptive pronouns). The absence of preposition dropping was illustrated in (18c) and the absence of resumptive pronouns was shown in (11). As a reviewer points out, such resumptive pronouns are actually possible with hanging topics in the clause effectively suspending the Verb-Second Constraint in German:

- (77) a. *Deine Promotion, darüber habe ich mich sehr gefreut.*
 your promotion, there.about have I myself very enjoyed
 ‘As for your promotion, I was very happy about that.’

³³ For the discussion of some rare cases of Verb-Third in German, see Speyer (2008). This author employs a structure similar to Rizzi (1997) briefly discussed in the introduction.

- b. *Über deine Promotion, darüber habe ich mich sehr gefreut.*
 about your promotion, there.about have I myself very enjoyed

This means that we cannot explain the ungrammaticality in (11) by simply stating that these resumptive pronouns do not exist in the language -- after all, they do occur in the clause. Again, this hints at the fact that the left periphery in the clause and noun phrase are not entirely parallel. A possible explanation for the absence of resumptive pronouns in the noun phrase might be found in Giusti's (1996, 2008) claim that in a certain sense, the nominal left periphery is "defective"; that is, it projects less structure. This would also immediately explain why multiple PP frontings as in (75) and (76) are not possible.

To sum up, we have discussed two differences in the left periphery between the clause and the noun phrase. The noun phrase has no genuine Determiner-Second effect and it appears to project less structure. For these reasons, I chose a label for the preposed elements that is different from those usually used in the clause. Giusti & Iovino's (2016) LPP is such a label.

6.2. Cross-linguistic Outlook

In this paper, I have focused on preposed PPs arguing that they occur above the DP-level. This is also possible in Bulgarian, Brazilian Portuguese, and Yiddish but not in Dutch, English, or any of the North Germanic languages (see Roehrs to appear a). Furthermore, unlike German, Latin, Hungarian, and Greek (Panagiotidis 2000: 719) tolerate DPs to precede determiners. In other words, some languages allow PPs to prepose, others tolerate DPs, and yet others allow neither (actually, Greek seems to allow both, Horrocks & Stavrou 1987: 86).³⁴ It is currently not clear to me why languages differ in this respect. Having said that, an interesting question arises with regard to languages that allow DPs to prepose above the DP-level.

As seen above, Latin genitive possessives can be in Spec,LPP. Since they involve a proper name, they should also move to Spec,DP given current assumptions. It is not entirely obvious why Latin genitives can be in both positions. A possible answer might be found considering DP-internal topicalizations in Brazilian Portuguese as discussed by Bastos-Gee (2011). Complements of nouns in this language can be topicalized in different but restricted ways. Relevant here, the last complement of a string like (78a) can be topicalized as in (78b). Note that the preposition *de* 'of' is optional with the topicalized element:

- (78) a. *a reprodução da pintura da cidadezinha* (Brazilian Portuguese)
 the reproduction of.the picture of.the little.city
 'the reproduction of the picture of the little city'
 b. *(d)a cidadezinha, a reprodução da pintura*
 of.the little.city the reproduction of.the picture

³⁴ Besides this dimension of variation, there are also differences with regard to the resumptive pronoun strategies that license these left peripheral elements (see Giusti 2008 and references cited therein). Furthermore, as discussed in Giusti (1996), adjectives in Italian and some other languages can also undergo displacement but crucially below DP-level. Giusti & Iovino (2016) relate the different positions of LPP, above and below the DP-level, to the language-specific bundling of Case with N or not. Lack of space prevents me from discussing these cross-linguistic differences in detail.

With the preposition optional, it appears that similar to Latin, a definite nominal can be in a position higher than Spec,DP. If we were to assume that the topicalized element is a PP, with the preposition optionally realized, then the Brazilian Portuguese data would fit in the current proposal. As for Latin, we could tentatively suggest that the topicalized proper name is embedded under more structure (perhaps also a PP). A similar suggestion could be made for the other languages with preposed DPs. These interesting issues cannot be further pursued here.

7. Conclusions

As documented above, all three pre-nominal possessives in German occur to the left of adjectives. However, despite appearances, I argued that there are two different pre-adjectival positions for possessives. On the one hand, Possessor Doublings and Saxon Genitives pattern the same. These nominal possessives may move to Spec,DP. On the other, *von*-possessives show different properties and they move to Spec,LPP. This provides evidence that the left periphery of nominals is also split in German. It seems clear though that the nominal left periphery is not entirely parallel to the clausal one, at least not in German.

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