No possessor inversion in German PPs

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1 Introduction

German allows the inversion of prepositional possessors, as seen in (1-a). This inversion is banned inside the complement of PPs (see (1-b)), which contrasts prepositional possessors with other kinds of possessors in German which can be inversed (see (1-c)).

(1) a. Von Conny der Hund heißt Motte.  
   'Conny’s dog is called Motte.'

      'It is boring without Conny’s dog.'

   c. Ohne Conny-s Hund ist es langweilig.‘  
      'It is boring without Conny’s dog.’

In the following paper, we will show that this restriction follows directly in an analysis based on feature-driven Merge in a Minimalist framework. As the universal constraint Merge-before-Move (Frampton & Gutmann 1999; Castillo et al. 1999; Chomsky 2000; Müller & Sternefeld 2001; Hornstein 2001, 2009; Boeckx et al. 2010; Drummond 2011; Weisser 2015) enforces the higher P head to check the structure-building [●P●] feature, movement of the possessor-PP is blocked. This paper is structured as follows. The relevant data is presented in section 2. In section 3, we propose a new analysis. Before concluding in section 6, we discuss further issues of our proposal in section 5.
2 Data

In a number of German dialects, possessee and possessor are allowed to swap their positions, as seen in (2). The order of possessee and vom-possessor in (2-a) is the standard word order, which is widely accepted among German native speakers. In (2-b), however, the constituents appear in reverse order.

(2) a. *Die Frau von Max hat einen Film gesehen.
   the.NOM wife of Max has a movie seen
   *‘Max’ wife has seen a movie.’

b. Von Max die Frau hat einen Film gesehen.
   of Max the.NOM wife has a movie seen
   ‘Max’ wife has seen a movie.’

A small-scale grammaticality judgment task in which we asked 49 native speakers of German to rate sentences from 1 (perfectly grammatical) to 6 (ungrammatical) showed that the inverse order seems to be far more restricted in its distribution than the standard order. First, it confirms the observation by Gallmann & Lindauer (1994) that the inversion cannot take place if the DP is in the complement of a PP, as seen in (3-b).

(3) a. Ohne die Frau von Max bin ich ins Kino gegangen.
   without the.ACC wife of Max am I to cinema gone

b. *Ohne von Max die Frau bin ich ins Kino gegangen.
   without of Max the.ACC wife am I to cinema gone
   ‘I went to the cinema without Max’ wife.’

Second, while the construction allows the possessee to bear accusative case (see (4-a)), dative possessees lead to ungrammaticality, as seen in (4-b)-(4-d). Note that this restriction is independent of the position of the constituent (prefield in
(4-c) vs. midfield in (4-d)) or the status of the dative (lexical dative in (4-b) vs. structural dative in (4-c)).

(4)  

a. *Ich habe von Maria den Freund im Kino getroffen.
   I have of Mary the.ACC friend in cinema met
   'I met Mary’s boyfriend in cinema.'

   of Hans the.DAT wife have I helped
   'I helped Hans’ wife.'

   of Hans the.DAT wife have I my car lent
   'I have lent my car to Hans’ wife.'

d. Ich habe von Hans der Frau mein Auto geliehen.
   I have of Hans the.DAT wife my car lent
   'I have lent my car to Hans’ wife.'

Other prepositional modifiers may also appear in a prenominal position. Crucially, they appear to show the same restrictions as possessive prepositional modifiers, as shown in (5).

(5)  

a. Mit dem Hund die Frau ist umgezogen.
   with the dog the.NOM woman is moved
   'The woman with the dog has moved.'

b. *Ich habe mit dem Hund der Frau geholfen.
   I have with the dog the.DAT woman helped
   'I helped the woman with the dog.'

c. *Ich habe gestern gegen mit dem Hund die Frau verloren.
   I have yesterday against with the.ACC dog the woman lost.
   'Yesterday, I lost against the woman with the dog.'

From the data we have seen in this section, we can draw the generalization that the inversion of prepositional modifiers is constrained as it is ungrammatical PP-internally, as previously observed by Gallmann & Lindauer (1994), as
well as with dative possessees. As Gallmann & Lindauer (1994) pointed out, these restrictions are not captured by previous analyses of this phenomenon, such as Bhatt (1990) or Fortmann (1996). Even though they suggest movement analyses within a Government and Binding framework, they fail to derive the blocking effect in the complement of PPs since the trigger for movement within G&B does not arise from features but from the relation of a moved XP and its trace. Hence, the goal of this paper is to present an analysis of German PP-inversion that can account for the restrictions that this construction is imposed on. In the following section, we will show that our proposal analyzes the ban on PP-internal PP-movement as an instance of a more general constraint on movement, the Internal Inversion Constraint, which arises from the constraint known as Merge-before-Move (Frampton & Gutmann 1999; Castillo et al. 1999; Chomsky 2000; Müller & Sternefeld 2001; Hornstein 2001, 2009; Boeckx et al. 2010; Drummond 2011; Weisser 2015).

3 Proposal

For the following analysis, we will adopt a Minimalist framework with feature-driven Merge, i.e. Merge and Move (or: base-Merge and re-Merge) can only take place if they are triggered by a feature, e.g. a structure-building feature [●X●] or a Probe feature [●X●] (Chomsky 2000, 2001). This assumption is based on the last resort condition given in (6).

(6) \textit{Last Resort} (Abels 2003)

A constituent $\alpha$ may only be merged, i.e. base-merge or re-merged, if that leads to the immediate satisfaction of a previously unsatisfiable feature.
Another assumption made her, is that the inversion is triggered by a feature [●P●] which is the lowest feature in an ordered feature bundle as proposed by Georgi & Müller (2010). In this analysis, this feature bundle is on D, such that D has the featural specification [●No● > ●P●]. The feature introduces a prepositional modifier and triggers movement of a PP to SpecDP. If the DP is not embedded in a PP, the derivation thus proceeds as follows. In the first step, D satisfies its [●No●] feature by merging with the NP. At this point of the derivation (see (6-a)), the remaining [●P●] feature on D has not been satisfied. This can now be achieved ONLY by moving the possessor PP to SpecDP, as seen in (7).

(7) Inversion of prepositional possessors

a. D
   DP
   [●No●] N PP<sub>poss</sub>
   [●P●]  

b. DP
   PP<sub>poss</sub>
   D′
   D
   [●P●] N t<sub>poss</sub>
   [●No●] N PP<sub>poss</sub>

In the next step, we will see that this inversion cannot take place in the complement of PPs. Let us assume that we are at the point of the derivation where a complex NP has been merged with D. The next feature to be satisfied is the [●P●] feature on D. If the next head in the numeration is also a P head, [●P●] on D can be satisfied either by moving the possessor PP to SpecDP or by merging the next head in the numeration. Due to the constraint Merge-before-Move in (8) (Frampton & Gutmann 1999; Castillo et al. 1999; Chomsky 2000; Müller & Sternefeld 2001; Hornstein 2001, 2009; Boeckx et al. 2010; Drummond 2011; Weisser 2015), the next head of the numeration is merged which bleeds the
movement of the possessor PP to SpecDP as the movement trigger has already been checked.

(8) **Merge before Move**

Suppose that the derivation has reached stage $\Sigma_n$, and $\Sigma_{n+1}$ is a legitimate instance of Merge, and $\Sigma'_{n+1}$ is a legitimate instance of Move. Then, $\Sigma_{n+1}$ is to be preferred over $\Sigma'_{n+1}$.

(9) No PP-internal PP-inversion

a. 

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P PP
  |     |
  |     |   D  NP
  |   [●P●] N PP poss
D PP
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b. 

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P PP
  |     |
  |     |   D' NP
  |   PP poss D N PP poss
D' PP
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The constraint on movement that is responsible for the blocking effect that arises PP-internally is summarized in (10) as the **Internal Inversion Constraint**.

(10) **Internal Inversion Constraint**

If a YP$_1$ directly dominates an XP which in turn dominates another YP$_2$, movement of YP$_2$ into SpecXP is banned.

In this section, we have seen that the restrictions of prenominal possessors follow automatically due to a [●P●] feature on D and the constraint *Merge-before-Move*. Moreover, it can easily be explained why only prepositional modifiers
are subject to this restriction. The competition between the embedded PP and
the next head in the numeration only arises as they are of the same lexical cat-
egory. Since other kinds of possessors are non-prepositional, no blocking effect
is expected.

4 Discussion

In this section, we want to discuss a rather unconventional issue of the other-
wise simple account that we want to forward in this paper. As the D head bears
a [●P●] feature and the next higher P head bears a [●D●] feature, our approach
presupposes reciprocal subcategorization. This automatically leads to the ques-
tion which of the two heads projects. Chomsky (2013) proposes a Labeling al-
gorithm (see (11)) that allows a head to project if it merges with a phrase. In his
view, a head is not defined as a constituent that subcategorizes but negatively
as a syntactic object that is not the result of Merge. In our analysis, it thus fol-
lows that P would still be the projecting head which clearly solves the problem
of reciprocal subcategorization.\(^1\)

\[(11) \text{ Labeling algorithm (LA)} \quad \text{(Chomsky 2013)}\]

a. Suppose a syntactic object \(\text{SO} = \{H, XP\}\), H is a head and XP is not
   a head. Then LA will select H as a label.

b. A head is a syntactic object that is not of the form \(\{X, Y\}\) and thus
   not constructed by Merge.

In contrast to the the previous analyses by Bhatt (1990); Fortmann (1996) and
Georgi & Müller (2010), our approach makes reference to categorical features,
thus explaining the PP-internal blocking effect. However, this assumption pre-
dicts that the inversion of prepositional modifiers should be subject to case re-
strictions, as it is often assumed that datives are actually PPs with a silent P
head (Bayer et al. 2001; Rezac 2008). As we pointed out in section 2, the ex-
amples in (4), here repeated as (12), show that this prediction is borne out, as
accusative possessors may precede the possessee, as shown in (12-a), whereas
the inversion of both lexical and structural datives leads to ungrammaticality
(see (12-b) and (12-c)).

of Mary the ACC brother have I in the town seen
‘I saw my Mary’s brother in town.’

of Hans the DAT wife have I helped
‘I helped Hans’ wife.

of Hans the DAT wife have I my car lent
‘I have lent my car to Hans’ wife.’

In section 3, we proposed a constraint on movement that can be generalized as
the Internal Inversion Constraint, here repeated in (13).

(13) Internal Inversion Constraint

If a YP₁ directly dominates an XP which in turn dominates another YP₂,
movement of YP₂ into SpecXP is banned.

This constraint follows directly from the basic assumptions of feature-driven
syntax and Merge-before-Move (Frampton & Gutmann 1999; Castillo et al. 1999;
Chomsky 2000; Müller & Sternefeld 2001; Hornstein 2001, 2009; Boeckx et al.
If the Internal Inversion Constraint holds for all categories, we should expect similar blocking phenomena in other languages. Even though the distribution of similar blocking effects exceeds the scope of this article, we want to mention two possible instances of the Internal Inversion Constraint in other language.

As Lötscher (1997) and Dürscheid & Hefti (2006) point out, one remarkable property of Swiss German syntax are embedded V1-clauses usually being headed by predicative adjectives or nouns (see (14)). The frequency of V1-clauses headed by verbs remains unclear in the literature, however, Lötscher (1997) mentions that the acceptability of V1-clauses strongly increases if they are headed by adjectives. This can be explained by means of the Internal Inversion Constraint such that V-to-C movement is blocked in clauses that are embedded under verbs but not under adjectives and nouns.

(14)  
\[ \text{S’isch schaad, isch es scho Friütig. (Lötscher 1997)} \]

lit: ‘It is unfortunate that it is already Friday.’

Another possible instance of the Internal Inversion Constraint is found in Archi (Nakh-Dagestanian, Russia). In this language, scrambling is allowed in main clauses, but not in nominalized clauses (Bond et al. 2016). They note that ‘[t]he genitive possessor [...] can appear only in the very beginning or the very end of the clause, but not between the absolutive and the verb (whereas the ergative can take this position).’ (Bond et al. 2016, p. 66). This blocking effect can be explained in terms of the Internal Inversion Constraint under the assumption that nominalized clauses are headed by a silent D head which blocks movement of a DP to a higher position.
5 Conclusion

In this paper, we proposed an analysis of the inversion of prepositional modifiers in German. We have shown that the restriction against PP-internal PP-inversion follows from two basic assumptions of feature-driven syntax, namely the Last Resort condition and Merge-before-Move. If a head in the numeration and a lower phrase compete to check a structure-building feature, Merge will always be preferred, which leads to a blocking effect. This effect can be generalized as the Internal Inversion Constraint which makes clear and falsifiable predictions for other domains in syntax.

References


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**Notes**

1Reciprocal subcategorization is not unheard of in Germanic linguistics. Sternefeld (2006) discusses auxiliary selection as a potential example of reciprocal subcategorization. The auxiliary selects for the morphological form of the verb, namely the participle, while the verb has idiosyncratic lexical information about the auxiliary that is selected.