

**Prominent internal possessors and backward possessor raising:
Norwegian *ryggen på ham* 'the back on him'**

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The topic of this paper is Norwegian sentences such as (1)-(2) on page 3. These sentences contain a body part noun with a possessor expressed as a PP with the preposition *på* 'on'. This possessor shares properties with the dative external possessor in e.g. German or French (example (3)). An important difference from the dative external possessor is that the Norwegian possessor PP is - or can be - a part of the noun phrase with the body part noun. The proposal here is that the Norwegian *på* possessor is a prominent internal possessor, which shows backward possessor raising.

The dative external possessor construction is found with body part nouns in several European languages (see e.g. König and Haspelmath 1998). The dative is an "extra" argument of the verb, realized as an OBJ₀. It is understood to be affected by the verbal action, which means that the verb has an extra thematic role. At the same time, the dative argument is understood as the possessor in a body part noun phrase. There are two different ways to account for the relation between the dative and the body part noun (see e.g. Deal 2017): Either the dative binds some element in the body part noun phrase (e.g. Hole 2005), or it is raised from the body part noun phrase (e.g. Lee-Schoenfeld 2006). This kind of raising is often called possessor raising, and the present paper is based upon this approach. In LFG it can be implemented as structure sharing, see the f-structure of example (3) in (4).

Old Norse had the dative external possessor construction, whose dative was later replaced by a PP. The PP in modern Norwegian is mentioned briefly in König and Haspelmath 1998:559, Haspelmath 1999:123, Stolz et al. 2008:231-238, Dahl 2015:168, and discussed more in Lødrup 2009a, Johannessen et al. 2014. However, no syntactic analysis has been proposed.

König and Haspelmath 1998:584, as well as Haspelmath 1999:123 and Dahl 2015:168 assume that the *på* possessor is external to the nominal phrase with the body part noun in Norwegian, Swedish and Danish. However, standard constituency tests indicate that the body part noun and the *på* possessor can be one constituent (Lødrup 2009a). The *på* possessor can follow the body part noun in topicalization to first position, as in example (5), which is sufficient evidence for constituency. The old situation with the *på* possessor as a separate constituent can still be found, however. When the body part noun is the object of the verb, constituency tests give evidence that both options are available. Example (6) indicates that the sequence body part noun - *på* possessor is one constituent, while (7) indicates that it is two constituents.

At some point in time, the Norwegian *på* possessor must have been reanalyzed as a part of the body part noun phrase. This kind of reanalysis from external to internal possessor is also known from some other languages, such as Hungarian (Nikolaeva 2002).

The *på* possessor construction shows several grammatical restrictions, which are shared with the dative external possessor construction in e.g. German and French. Examples of restrictions are:

- The set of acceptable verbs is restricted to those which can take an "extra" affected argument.
- The body part noun phrase cannot be a subject, except with some passives and unaccusatives.
- The body part noun cannot be modified non-restrictively, see example (8).
- A body part noun that denotes a body part which we have one of, is always in the singular, with a distributive reading when the possessor is plural, see example (9).

These restrictions seem to be independent of the status of the *på* possessor as internal or external to the body part noun phrase. It seems then that each restriction would have to be stated twice. Another problem with these restrictions is that some of them seem to be non-local when the possessor PP is a part of the body part noun phrase. For example, the choice of verb is then restricted by a non-head in the object noun phrase. These are real problems, which will become important as a motivation for the analysis to be given.

It should be mentioned that the restrictions mentioned do not concern all PPs with *på* 'on' and a body part noun. It is necessary to distinguish between the possessor PP and other PPs with *på* 'on'. There are also PPs with *på* and a body part noun that might be seen as regular partitives, and/or locatives, with no connection to the topic of this paper. Examples are (10)-(11), which violate all the restrictions mentioned, and are not interpreted as affected.

The dative external possessor in e.g. German and French is interpreted as an affected participant in the event denoted by the verb. The same is the case with the Norwegian *på* possessor. A sentence such as (12) can alternatively have a regular possessor as in (13). However, the possessor is then not depicted as a participant in the event. (The sentences in (13) are not easy to contextualize. They give the impression that cutting out somebody's guts is an ordinary thing to do, or that the possessor's dead body is given an autopsy.)

When the *på* possessor is external to the body part noun phrase, its analysis raises no new challenges. One can simply transfer one's favorite analysis of the dative external possessor

construction. Possessor raising, implemented as structure sharing, is assumed here, as in the f-structure (4). This f-structure would also be adequate for a corresponding Norwegian sentence, when *på* 'on' is treated as a grammatical marker for the OBJ θ . The question is now what kind of syntactic representation would be adequate for the cases where the *på* possessor is internal to the body part noun phrase. The simple answer seems to be that the f-structure should be the same, independently of the status of the *på* possessor as external or internal. In both cases, there is a possessor that has a double function. Even if the internal *på* possessor is not a constituent of the clause, it behaves as if it were in some respects. It is interpreted as a clausal argument, and it imposes grammatical restrictions that seem to apply above its local domain (restricting e.g. the type of verb, as mentioned above) - which have the same effects as restrictions imposed by the external *på* possessor.

The internal *på* possessor can be considered a prominent internal possessor, i.e. a possessor that is realized internally in a noun phrase, while being syntactically active in the sentence that the noun phrase is a part of. This kind of possessor has been documented in several unrelated languages. Ritchie 2016, 2017 gives an analysis of prominent internal possessors in Chimane which is based upon the assumption that they are represented at the clause level. His case is rather different from the one discussed here, however, especially because there is direct evidence from morphology for this kind of representation.

The idea here is to construct an f-structure representation for the internal *på* possessor at the clausal level using possessor raising "backward".

First, a more general comparison of possessor raising to raising and control of subjects could be enlightening. It is clear that possessor raising shares properties with raising and control of subjects (Lødrup 2009b, Deal 2017). For most cases of possessor raising, the parallel to control is the most relevant one, because the raised possessor realizes a semantic role in both its positions - as a possessor in the body part noun phrase and as an affected participant at sentence level.

Ritchie 2016, 2017 points out that a situation with a constituent realized in a lower position that is shared with a function in a higher position has a parallel in what has been called backward control of subjects. There are languages in which the shared subject is phonologically realized in its low position, as in 'tried [John to leave]' (Polinsky and Potsdam 2002, 2006). This shared argument is at the same time the subject of the main verb and of the subordinate verb. The difference from regular control is that it is phonologically realized in the subordinate position. In the same way as there are languages with backward control, one could say that there are languages with backward possessor raising. The important point is that the possessor has two roles to play, as an argument of the verb and as a possessor of the body part noun.

Hornstein 1999 proposed an influential Minimalist treatment of (regular, forward) obligatory control, in which the controller is moved from the controlled position to its surface position. This makes it very similar to subject-to-subject-raising. Polinsky and Potsdam 2002 see the existence of backward control as an argument for Hornstein's analysis of control - the difference between forward and backward control is only in which position the moved element is to be pronounced.

In LFG, obligatory control and raising have been treated the same way since the theory was first introduced (Bresnan 1982). The mechanism used is traditionally structure sharing through unification. However, unification is a symmetric relation, which does not say anything about which way the information flows. Therefore, it does not say anything directly about where the argument is realized. This is the reason subsumption has been proposed to account for control and raising (Zaenen and Kaplan 2002, Sells 2006). Subsumption is an asymmetrical relation, which makes it possible to distinguish between the regular cases and the backward cases of raising and obligatory control. Regular possessor raising - as in the dative external possessor construction - is parallel to regular control. To let the information flow from the OBJ θ to the possessor, the rule must say that OBJ θ subsumes the possessor: $(\uparrow\text{OBJ}\theta) \sqsubseteq (\uparrow\text{GF POSS})$. This analysis also accounts for the external *på* possessor (given that the external *på* possessor is an OBJ θ). Backward possessor raising is parallel to backward control. The rule must say that the possessor subsumes the OBJ θ : $(\uparrow\text{GF POSS}) \sqsubseteq (\uparrow\text{OBJ}\theta)$.

As mentioned, there are two standard ways of accounting for the dative external possessor construction: Either the dative binds some element in the body part noun phrase, or it is raised from the body part noun phrase. This paper is based upon the possessor raising approach. It seems to be difficult to use a binding analysis as an alternative to backward possessor raising. When the *på* possessor is a part of the body part noun phrase, there seems to be no way to construct a binding relation between the possessor and the body part noun phrase. Besides, it is not clear how to give the possessor a representative at the clause level.

EXAMPLE SENTENCES

- (1) De skar dypt i ryggen på ham
they cut deep in back.DEF on him
'They cut deep in his back'
- (2) De måtte fjerne leveren på ham
they must remove liver.DEF on him
'They had to remove his liver'
- (3) Je lui casse le bras
I him break the arm
'I break his arm'
- (4)

PRED	'casser <(↑SUBJ) (↑OBJaffected) (↑OBJ)>'				
SUBJ	[PRED PRO]				
OBJaffected	[PRED PRO]				
OBJ	<table border="1" style="border-collapse: collapse; margin-left: 20px;"> <tr> <td style="padding: 5px;">PRED</td> <td style="padding: 5px;">'bras <(↑POSS)>'</td> </tr> <tr> <td style="padding: 5px;">POSS</td> <td></td> </tr> </table>	PRED	'bras <(↑POSS)>'	POSS	
PRED	'bras <(↑POSS)>'				
POSS					
- (5) I ryggen på ham skar de dypt
in back.DEF on him cut they deep
'In his back, they cut de deep'
- (6) Leveren på ham måtte de fjerne
liver.DEF on him must they remove
'His liver, they had to remove'
- (7) Leveren måtte de fjerne på ham
liver.DEF must they remove on him
'They had to remove his liver'
- (8) Hun vasket (*den skitne) ryggen på ham
she washed (the dirty) back.DEF on him
'She washed his (dirty) back'
- (9) Hun stappet kaker i munnen / *munnene på dem
she popped cakes in mouth.DEF / mouths.DEF on them
'She popped cakes into their mouths'
- (10) særlig damer har problemer med de lange halene på rottene (www)
especially women have problems with the long tails.DEF on rats.DEF
'Women in particular have problems with the long tails of the rats'
- (11) Sår i underlivet på den drepte viste også at ... (www)
wounds in abdomen.DEF on the killed showed also that ..
'Wounds in the abdomen of the murdered person also showed that ...'
- (12) Skjær ut innvollene på ham!
cut out guts.DEF on him
'Cut out his guts'
- (13) Skjær ut innvollene hans / Ols innvoller / innvollene til Ola!
cut out guts.DEF his / Ola's guts / guts.DEF to Ola
'Cut out his / Ola's guts!'

SELECTED REFERENCES

- Deal, Amy Rose. 2017. External possession and possessor raising. In Martin Everaert and Henk van Riemsdijk (eds.) *The Wiley Blackwell Companion to Syntax. 2nd edition*. Wiley.
- Lee-Schoenfeld, Vera. 2006. German possessor datives: raised and affected. *Journal of Comparative Germanic Linguistics* 9, 2, 101–142.
- Lødrup, Helge. 2009a. External and internal possessors with body part nouns: The case of Norwegian. *SKY Journal of Linguistics* 22, 2009, 221-250.
- Polinsky, Maria and Eric Potsdam. 2002. Backward control. *Linguistic Inquiry* 33, 245-282.
- Ritchie, Sandy. 2016. Two cases of prominent internal possessor constructions. In *Proceedings of the Joint 2016 Conference on Head-driven Phrase Structure Grammar and Lexical Functional Grammar*. 620-40.
- Ritchie, Sandy. 2017. Agreement with the internal possessor in Chimane. *Studies in Language* 41 660-716.