Helge Lødrup

External and Internal Possessors with Body Part Nouns: The Case of Norwegian

Abstract

Norwegian body part nouns can take PP possessors with the preposition $p\mathring{a}$ 'on' (as in *De barberte hodet på ham* 'they shaved head.DEF on him'). Their grammatical properties are discussed, and it is shown that they are restricted in various ways, concerning both structure and distribution. Body part nouns with PP possessors are both different from and similar to the dative external possessors in languages such as French and German. An important difference is that the Norwegian PP possessors can be either external or internal to the body part noun phrase. The internal possessor represents an innovation, a new possessive in Norwegian.

1. Introduction¹

The topic of this article is a possessor that is used with body part nouns. In (1), the PP på ham 'on him' is the possessor of the body part noun hodet 'head.DEF'.

(1) De barberte hodet på ham they shaved head.DEF on him 'They shaved his head.'

This construction also exists in Swedish and Danish. Section 2 gives a short discussion of how this construction has been treated in the literature. It is then shown that the body part noun and the possessor PP can always have an analysis as one constituent, with an additional option for a two constituent analysis when it is governed by a verb (section 3). How the one

¹ For input and discussion, I would like to thank my colleagues Leiv Inge Aa, Kjartan Ottosson, Andreas Sveen, Ellen Hellebostad Toft, Kristian Kristoffersen, Hans-Olav Enger, Jan Terje Faarlund, and Marianne Hobæk Haff. Thanks also to the anonymous reviewers for their valuable comments.

constituent and two constituent constructions are similar and different are discussed in sections 4 and 5. Section 6 gives a comparison to the dative external construction in French and German, and section 7 discusses the relation to the possessor raising construction. Modern Norwegian is compared to Old Norse and Icelandic in section 8, and it is suggested that the one constituent analysis represents an innovation. Section 9 discusses the internal structure of the one constituent construction, and proposes that the internal PP possessor has become a new possessive in Norwegian. In section 10, the distribution of the PP possessor constructions is compared to the distribution of the body part noun phrases more generally.

2. State of the art

The syntax of possessives in Norwegian (and Scandinavian) has been the subject of interesting research, see Julien (2005) and references there. The possessives of Norwegian are the so-called genitive (realized as -s, or as a separate word), as in (2), the possessive pronoun, as in (3), and the possessive PP with *til* 'to', as in (4). The possessive pronoun in (3) can be prenominal or postnominal; in the latter case it requires the definite form of the noun, just like the possessive PP with *til* 'to'.

- (2) De barberte Olas hode / Ola sitt hode they shaved Ola's head / Ola POSS head 'They shaved Ola's head.'
- (3) De barberte hans hode / hodet hans they shaved his head / head.DEF his 'They shaved his head.'
- (4) De barberte hodet til Ola they shaved head.DEF to Ola 'They shaved Ola's head.'

The possessives in (2)–(4) will be referred to as the regular possessives of Norwegian. The possessor PP with pa 'on' is not considered a possessive in the literature. It differs from other Norwegian possessives in requiring that its head denotes a body part. With other noun heads, a PP with pa gets a different interpretation, often locative as in example (5), or partitive, as in example (6) below.

(5) De fjernet insektene på ham they removed insects-DEF on him 'They removed the insects on him.'

The Scandinavian literature does not have much to say about noun phrases such as *hodet på ham* 'head.DEF on him'. Faarlund et al. (1997: 440–42) classify the possessive PP as a partitive. They treat it together with partitive constructions such as (6)–(7), in which the head noun denotes a part of the whole denoted by the prepositional complement. The partitive analysis is also assumed, but not discussed, in Julien (2005:142).

- (6) håndtaket på døra handle.DEF on door.DEF 'the handle on the door'
- (7) en av deltakerne one of participants.DEF 'one of the participants'

A very different perspective on the possessor PP can be found in König & Haspelmath (1998), and Haspelmath (1999). Their main concern is the dative external possessor construction in French and German and other European languages. The example (8) is French.

(8) Je lui ai coupé les cheveux (Guéron 1985: 59)
I him.DAT have cut the hair
'I cut his hair.'

In the dative external possessor construction, a possessor of a body part noun is realized as a dative that is not a part of the same phrase as the noun. Haspelmath (1999) says that there is a small Sprachbund in Northern Europe which differs from French and German "by employing a locative rather than a dative case for their E[xternal] P[ossessor] construction". This Sprachbund consists of Icelandic, Norwegian, Swedish, Danish, Irish, Finnish, Estonian and Russian.² Stolz et al. (2008: 231–38) also see the PP as a possessor in Norwegian, Swedish and Danish.

² König & Haspelmath (1998) split the locative into a superessive and an adessive. It is not clear, however, that the PP is a locative in Norwegian, even if $p\mathring{a}$ 'on' is basically a locative preposition. One argument is that $p\mathring{a}$ 'on' is the only preposition that can be

The grammatical properties of the *hodet på ham* 'head.DEF on him' construction are discussed in sections 3 and 4. It is argued that it is very different from the partitive construction, while it is both similar to and different from the dative external possessor construction.

3. Constituency

The question of constituency is important to a discussion of external versus internal possessors. Are the body part noun and the possessor PP one constituent? A one constituent analysis is implicit in Faarlund et al. (1997), because their partitive analysis presupposes that the PP is a part of the same noun phrase as the body part noun. On the other hand, the wording in Haspelmath (1999: 124) shows that he takes the PP to be a separate constituent, as in the dative external possessor in French and German.

It will be shown that the body part noun and the possessor PP can always have an analysis as one constituent in Norwegian. The one constituent construction with a body part noun and a phrase internal possessor PP will be called a BIP (for **B**ody part noun with **I**nternal **P**ossessor).

Consider first the sequence *body part noun* – PP after a preposition, as in example (9). The topmost PP can be topicalized and clefted, as in (10)–(11).

- (9) Det fløy en fugl [over hodet på ham] there flew a bird over head.DEF on him 'A bird flew over his head.'
- (10) [Over hodet på ham] fløy det en fugl over head.DEF on him flew there a bird 'Over his head, a bird flew.'
- (11) Det var ikke bare [over **hodet på ham**] det fløy fugler it was not only over head.DEF on him there flew birds 'It was not only over his head that birds flew.'

used in this construction. It is used with nouns for all body parts, regardless of whether they are 'on' or 'inside' the human body (such as the liver). It is interesting to compare to the corresponding construction in Icelandic, which has a choice between \acute{a} 'on' and \acute{t} 'in' (Thráinsson 2007: 94—95; Stolz et al. 2008: 114—16).

Examples (10)–(11) show that the topmost PP is a constituent, which in its turn shows that the sequence *body part noun* – PP is a constituent, a BIP noun phrase.

Another argument for constituency is given by the fact that a BIP noun phrase can be an object of a PP modifier within a larger noun phrase. An example is (12) (which was found on the internet, like other example *sentences* with the tag *auth*). If there were no BIP noun phrase in (12), the possessor PP would have to be another modifier in the larger noun phrase, which would not give the right meaning.

(12) da løper du egentlig mellom [hårene på [nederste delen av then run you really between hairs.DEF on lower part.DEF of [bena på ham]]] legs.DEF on him 'Then you actually run between the hairs on the lower parts of his legs.'

The constituency of a PP with a BIP object is also clear in example (13), where the larger PP is a modifier in the subject noun phrase. The constituency of this argument cannot be questioned, because it is followed by the finite verb, and Norwegian is a verb second language.

(13) [Sår i [underlivet på den drepte]] viste også at ... (auth) wounds in lower abdomen.DEF on the killed showed also that ... 'Wounds in the lower abdomen of the murdered person also showed that ...'

The conclusion is that the sequence *body part noun* – PP is always one constituent (a BIP) when it is the object of a preposition. Splitting the sequence gives unacceptable sentences, or sentences with unrelated meanings, such as (14).

(14) *Over hodet fløy det en fugl på ham over head.DEF flew there a bird on him 'A bird flew over his head [intended].'

The question is more difficult when there is a verbal head, as in example (15). The sequence *body part noun* – PP can be topicalized and clefted, as in (16)–(17).³

³ It is to some extent possible to passivize the possessor, as in (i).

- (15) *De måtte fjerne* **leveren på ham** they must remove liver.DEF on him 'They had to remove his liver.'
- (16) **Leveren** på ham måtte de fjerne liver.DEF on him must they remove 'His liver, they had to remove.'
- (17) Det var ikke bare **leveren** på ham de måtte fjerne it was not only liver.DEF on him they must remove 'It was not only his liver that they had to remove.'

Topicalization and clefting establish constituency; again there is a BIP.

It is also possible, however, to split the body part noun and the PP, as in sentences such as (18)–(19), in which the body part noun is topicalized and clefted without the PP.

- (18) **Leveren** måtte de fjerne på ham liver.DEF must they remove on him 'They had to remove his liver.'
- (19) Det var ikke bare **leveren** de måtte fjerne **på ham** it was not only liver.DEF they must remove on him 'It was not only his liver that they had to remove.'

Examples (18)—(19) do not show conclusively that there must be two constituents. A PP modifier and its selecting noun head can in some cases behave as if they were two constituents (see Teleman et al. 1999: 107, 448—50, on Swedish). This is shown in (20)—(22) (based upon sentences in Teleman et al. 1999: 448). The noun *bit* 'bite' selects a partitive PP with *av* 'of'. In example (20), the noun and the PP are parts of the subject noun phrase (whose constituency is shown by the fact that the finite verb

⁽i) hva er verst, å bli knekt nakken på ... (auth)

what is worst, to be broken neck.DEF on ...

What is worst, to get your neck broken ...

This could be taken as an argument that the sequence *body part noun - PP* is one constituent, because a nominal's promotion to subject in a passive is usually assumed to require some form of locality to the verb (see e.g. Bresnan 1982).

follows). In examples (21) and (22), on the other hand, this phrase is discontinuous.

- (20) En liten bit av kaken er igjen a small piece of cake.DEF is left 'A small piece of the cake is left.'
- (21) En liten bit er igjen av kaken a small piece is left of cake.DEF 'A small piece is left of the cake.'
- (22) Av kaken er en liten bit igjen of cake.DEF is a small bit left 'Of the cake, a small bit is left.'

A more decisive argument for the two constituent option is the following: There can be a constituent between the body part noun and the PP, for example a particle phrase, as in (23), or a secondary predicate, as in (24).

- (23) *(noe)* dreide **hodet** trill rundt **på ham** (auth) something turned head.DEF completely around on him 'Something turned his head around completely.'
- (24) han ville slå nesen flat på NN (auth) he would beat nose.DEF flat on NN 'He wanted to beat NN's nose flat.'

This kind of interruption is not acceptable with the discontinuous partitive noun phrases mentioned above, as shown in (25)–(26).

- (25) *Han tråkket [en bit] flat [av kaken] he stepped a bit flat of cake.DEF
- (26) *Han dreide [håndtaket] rundt [på døren] he turned handle.DEF around on door.DEF

It is difficult to avoid the conclusion that the sequence *body part noun* -PP can be two constituents. It is important, however, that this is only an option

when the body part noun phrase is the object of a verb.⁴ (This generalization must be modified to cover sentences such as (39)—(40) below.) The term BEP will be used of the two constituent construction (for **B**ody part noun with External Possessor).

It will be shown below that the BIP and BEP constructions are both similar (section 4) and different (section 5) concerning their grammatical properties.

4. Structure and distribution of the BIP and the BEP constructions

Some restrictions on the internal structure and distribution of the BIP and the BEP constructions are discussed in this section. The discussion also shows why the partitive analysis is not tenable.

4.1 Modification

Modifiers other than the possessor PP are not common with the body part noun in the BIP/BEP constructions. Many body part nouns denote something that we have only one of (e.g. *hode* 'head'), reducing the need for modification. However, some nouns allow restrictive modification, as in example (27).

(27) De vasket den skadede fingeren på ham they washed the hurt finger.DEF on him 'They washed his hurt finger.'

One restriction on modification is that non-restrictive modifiers are not acceptable, as shown in (28). This is also the case in the dative external

⁴ It is interesting that modern Icelandic has a comparable difference concerning the distribution of the (marginal) possessive dative. Thráinsson (2007:95-96) says that this dative is only possible with a noun that is governed by a preposition, contrasting examples such as (i) and (ii).

⁽i) *i hjarta þér* in heart you.DAT 'in your heart'

⁽ii)**Hjarta þér* er stórt heart you.DAT is big 'Your heart is big.'

possessor construction (Vergnaud & Zubizarreta 1992: 603; König & Haspelmath 1998: 534–36).

(28) *De vasket det skitne hodet på ham they washed the dirty head.DEF on him

The BIP/BEP constructions differ from partitives in this respect. Partitives with non-restrictive modifiers parallel to (28) are perfect, as shown in (29).

(29) De pusset det skitne håndtaket på døra they polished the dirty handle.DEF on door.DEF 'They polished the dirty handle on the door.'

4.2 Distributivity

The body part noun is usually singular, with a distributive interpretation when the possessor is plural, as in example (30). This is, as a main rule, also the case in the dative external possessor construction (Vergnaud & Zubizarreta 1992: 603; König & Haspelmath 1998: 581–83).

(30) det tømmes kokende vann over hodet på dem (auth) there pour.PASS boiling water on head.DEF on them 'Boiling water is poured on their heads.'

A plural body part noun can be used in some cases, however. In example (31), the body part possessors seem to be perceived not as a group of individuals with one head each, but rather as a 'mass' with many heads.⁵

(31) *(de) har avfyrt varselskudd rett over hodene på demonstrantene* (auth) they have fired warning.shots right over heads.DEF on demonstrators.DEF 'They have fired shots of warning above the heads of the demonstrators.'

⁵ There seems to be variation between speakers, possibly due to influence from English. Web searches give some sentences with the plural that are completely unacceptable to me and other linguists I have consulted. An example is (i).

⁽i) jenter som stikker tunga i munnene på andre sine typer (auth) girls who put tongue.DEF in mouths.DEF of other POSS boy.friends 'girls who put their tongues in the mouths of other girls' boyfriends'

Partitives with a plural 'whole' can be used with the 'part' in the singular or the plural, as in (32). Even so, there is a difference between the BIP/BEP constructions and partitives, in that the singular is often the only option with the BIP/BEP constructions, as in example (33). This is not the case with partitives.

- (32) Det kom røyk ut av pipen / pipene på husene there came smoke out of chimney / chimneys on houses.DEF 'Smoke came out of the chimneys on the houses.'
- (33) Det kom røyk ut av munnen / *munnene på barna there came smoke out of mouth.DEF / mouths.DEF on kids.DEF 'Smoke came out of the mouths of the kids.'

4.3 Subject function

An important difference between partitives and the BIP/BEP constructions is that partitives have the same distribution as other noun phrases, while the BIP/BEP constructions do not. Especially striking is the fact that BIP noun phrases are not usually subjects, as shown in examples (34)—(35).

- (34) *Hendene på henne gled over ryggen hans hands.DEF on her slid over back.DEF his 'Her hands slid over his back [intended].'
- (35) *Hodet på ham kom borti bordet (da han falt) head.DEF on him came near table.DEF (when he fell) 'His head touched the table (when he fell) [intended].'

Examples (34)—(35) would be perfect with one of the regular possessives that were mentioned in section 2. The phrases that are subjects in (34)—(35) could be objects in well formed sentences. Corresponding sentences with uncontroversial partitives would also be perfect, as shown in (36).

(36) Håndtaket på døren kom borti bordet (da Ola sparket den inn) handle.DEF on door.DEF came near table.DEF (when Ola kicked it in) 'The handle on the door touched the table (when Ola kicked it in).'

The BEP construction is like the BIP construction in that it does not usually involve the subject position. The unacceptable examples with BIP noun

phrases are still unacceptable when the PP is made a separate constituent, as shown in (37).

(37) *Hendene gled over ryggen hans på henne hands.DEF slid over back.DEF his on her 'Her hands slid over his back [intended].'

Some verbs are more liberal concerning BIP/BEP subjects. A copula verb can in some cases take a BIP subject, as in example (38). This must be related to the fact that copula verbs do not take underlying subjects.

(38) Hodet på prinsessa mi var på vei ned (auth) head.DEF on princess.DEF my was on way down 'The head of my princess [i.e. unborn baby girl] was on its way down.'

Some sentences with unaccusative and passive verbs allow—to varying degrees—the BEP construction with the body part noun as a subject; examples are (39)—(40). This must be related to the fact that the subject is an underlying object with these verbs.

- (39) (etterpå) har **kjeften** knapt stått stille **på ham** (auth) afterwards has jaw.DEF hardly stood still on him 'After that, his jaw has hardly stood still.'
- (40) **Neglene** må klippes på ham nails.DEF must cut.PASS on him 'His nails must be cut.'

4.4 Physical contexts

Another important restriction on the distribution of the BIP/BEP constructions is that they cannot be the object of any verb or preposition. The main rule is that the BIP/BEP constructions can only be used in a 'physical context'. This concept was introduced in Lødrup (1999) to account for the distribution of simple reflexives. A physical context was understood as one in which the action is on or in relation to a person's physical body, or something is located relative to a person's physical body (modified from Bresnan 2001: 258). In practice, a physical context means the object position of a verb that denotes an action on or in relation to the

body, or of a locational preposition. It is important that 'being in a physical context' is not the same as 'being affected by the verbal action', the latter is discussed in section 5. (For example, the body part noun in example (13) above is in a physical context, but it is not affected by the verbal action.)

Occurring in a physical context is usually a requirement on the BIP construction and the body part noun of the BEP construction. This is the reason (41)—(43) are not acceptable.⁶ (Sentences such as (38)—(40) above again require appeal to 'underlying' structure.⁷)

- (41) *Legene diskuterte magen på dem doctors.DEF discussed stomach.DEF on them
- (42) *Legene tenkte på magen på dem doctors.DEF thought of stomach.DEF on them

An exception from the physical context requirement is the complement position of an identity sentence, as in (ii).

(ii) det er hodet på valpen (auth)

that is head.DEF on puppy.DEF

'That is the puppy's head.'

Sentences with the verb se 'see' deserve a special mention. They allow the BIP/BEP constructions, contrary to expectation, as in (iii).

(iii) vi så rompa på han (auth)

we saw ass.DEF on him

'We saw his ass.'

However, it is a general phenomenon that languages can treat seeing a part of a person as something that affects that person in the same way as a physical action (Wierzbicka 1979: 333-36; König & Haspelmath 1998: 568).

it was not only liver.DEF on him they must remove

⁶ In some cases, the look of a body part seems to be conceived as revealing a deeper property, indicative of the inner qualities of a person. A body part noun is then more acceptable in a non-physical context. An example is (i).

⁽i) Jeg kan ikke utstå øynene på ham

I can not stand eyes.DEF on him

^{&#}x27;I cannot stand his eyes.'

⁷ With unbounded dependencies, the requirement for a physical context must always be satisfied in 'underlying' structure. For example, it is possible to cleft a BIP noun phrase, as in (i). The object position of *fjerne* 'remove' defines the physical context that allows the BIP noun phrase *leveren på ham* 'liver.DEF on him'.

⁽i) Det var ikke bare **leveren** på ham de måtte fjerne

^{&#}x27;It was not only his liver they had to remove.'

(43) *Legene ringte angående magen på dem doctors.DEF called concerning stomach.DEF on them

Sentences (41)—(43) would be acceptable with regular possessives. Corresponding sentences with partitives are also acceptable. (For example, håndtaket på døra 'handle.DEF on door.DEF' can replace magen på dem 'stomach.DEF on them' in [41]—[43].)

4.5 Restrictions on the noun head

The head noun in the BIP/BEP construction must denote a part of a body. The body part cannot be cut off or separated from the body as a whole. There is no such restriction with the regular possessives. Consider the difference between example (44), with the BIP construction, and (45), with the possessive pronoun,

- (44) Jeg sprutet insektmiddel i håret på ham I sprayed insecticide in hair.DEF on him 'I sprayed insecticide in his hair.'
- (45) Jeg sprutet insektmiddel i håret hans I sprayed insecticide in hair.DEF his 'I sprayed insecticide in his hair.'

Example (44), with the BIP construction, only has the interpretation that the hair is 'his' hair on 'his' head. Example (45), with the possessive pronoun, also has this interpretation, but in addition, the hair could be 'his' toupee in a drawer, or it could be 'his' hair that has been cut off and is lying on the floor in the barbershop.

Body part nouns are often used with transferred or metaphorical meanings. In some cases, the BIP/BEP constructions can, or must, be used. Consider example (46), with a BIP construction.

⁸ Body part nouns are known to behave differently when they have generic reference, for example, they don't require a realized possessor. It is therefore interesting that (some) body part nouns can take a PP with a different preposition when they are used generically, as in *tennene hos skolebarn* 'teeth.DEF at school.children' (Faarlund et al. 1997: 441).

(46) Det gikk over hodet på meg it went over head.DEF on me 'It went over my head.'

Example (46) can have a literal interpretation, meaning e.g. that a shot went over 'my' head. However, it can also mean that something happened without 'me' understanding or being involved. This interpretation is not possible with a regular possessive.

Any noun that is used to refer to a part of a body can be used in the BIP/BEP constructions. There are many more or less conventionalized metaphors for body parts, e.g. *brødboks* 'bread box' for the mouth, or *glugger* 'portholes' for the eyes. They can occur in the BIP/BEP constructions when used of a body part, as in example (47), even if they cannot in their literal use.

(47) Kan noen få opp gluggene på Roger? (auth) can anybody get up portholes on Roger 'Can anybody get Roger's eyes open?'

On the other hand, a body part noun cannot take the BIP/BEP construction when it is used to refer to something that is not a part of a body, as in *hodet* på skruen 'head.DEF on screw.DEF'. Even if there is a PP with på 'on', this PP seems to be a regular partitive, showing none of the restrictions in distribution that were shown for the BPP. For example, it can be a subject, and it can occur in non-physical contexts, as shown in examples (48)—(51).

- (48) Hodet på skruen sprakk head.DEF on screw.DEF cracked 'The head of the screw cracked.'
- (49) De diskuterte hodet på skruen they discussed head.DEF on screw.DEF 'They discussed the head of the screw.'
- (50) De tenkte på hodet på skruen they thought of head.DEF on screw.DEF 'They thought of the head of the screw.'

(51) De ringer angående hodet på skruen they call concerning head.DEF on screw.DEF 'They call concerning the head of the screw.'

Even the parts of a doll seem to be treated differently from the parts of a human. For example, the phrase *hodet på dukken* 'head.DEF of doll.DEF' can replace *hodet på skruen* 'head.DEF of screw' in (48)—(51).

Nouns denoting garments can also occur in the BIP/BEP construction when they denote garments that are worn by the possessor, as in (52).

(52) *noen stappa ting ned i buksa på ham* (auth) some put things down in pants.DEF on him 'Somebody put things down his pants.'

This extension of the group of body part nouns is well known from the literature on body part nouns and possession (e.g. Haspelmath 1999: 113).

Nouns that do not refer to a part of a body or a garment cannot be used in the BIP/BEP construction, as seen in (53)—(54).

- (53) *De vasket bilen på ham they washed car.DEF on him 'They washed his car [intended].'
- (54) *Hun stakk hånden i vesken på den gamle mannen she put hand.DEF in bag.DEF on the old man.DEF 'She put her hand in the old man's bag [intended].'

There is a possible connection to the fact that their abstractness would make it difficult for them to occur in physical contexts (other than with metaphorical use of the 'physical' verbs and prepositions). Faarlund et al. (1997:442) say that these nouns are used in partitives, noting that they usually take the prepositions *hos* 'at' or *til* 'to'.

⁹ Nouns that denote senses, faculties, etc. do not usually occur in the BIP/BEP constructions, even if they could be seen as abstract body part nouns. An example is (i).

⁽i) *Sykdommen ødela retningssansen på Ola illness.DEF hurt sense.of.direction.DEF on Ola

^{&#}x27;The illness hurt Ola's sense of direction [intended].'

5. A difference between the BIP and the BEP constructions

The discussion in section 4 showed some similarities between the BIP and the BEP constructions. An important difference will now be considered. It was shown in section 3 that the BEP construction only occurs with transitive verbs, as in example (15), reproduced here as (55).

(55) De måtte fjerne leveren på ham they must remove liver.DEF on him 'They had to remove his liver.'

Even if the verb *fjerne* 'remove' is a two-place verb, it occurs with three arguments in the BEP construction. The BEP construction adds an argument that is not a part of the basic valency of the verb. In this respect, the BEP construction is like the dative external possessor construction. The possessor PP will be assumed to be an indirect object, again paralleling the dative external possessor construction. How this valency extension should be accounted for in the dative external possessor construction has been discussed in the literature (e.g. König & Haspelmath 1998; Landau 1999; Guéron 2006). Even if the exact mechanism is not important for this article, it will be assumed that the BEP construction involves a lexical rule, as illustrated in (56) for the verb *fjerne* 'remove'.

It was shown in section 3 that a sentence such as (55) above also has an analysis as a BIP construction. The option of analyzing the relevant sentences as BEP or BIP constructions has consequences for the assignment of semantic roles. With the BEP analysis, the verb has an extended valency, with one extra argument, which means that there is one extra role to assign. With the BIP analysis, on the other hand, the PP is a modifier of the noun, and the BIP noun phrase gets one role as a whole.

Again, the BEP is similar to the dative external possessor construction. In the literature on the dative external possessor construction, the dative possessor is usually assumed to have a semantic relation to the verb (see e.g. Bally 1926/1996; Guéron 1985; König & Haspelmath 1998; Landau 1999; König 2001; Lee-Schoenfeld 2006). In the words of König

(2001: 972), the dative external possessor construction implies "that the possessor is strongly affected by the action or event denoted by the rest of the sentence". The standard way to implement this intuition has been to assume that the dative has a semantic role, which has been called an affectee, or a benefactive/malefactive.

The BIP construction is predicted to be different in this respect. When the PP is a modifier of the body part noun, it cannot have any direct semantic relation to the verb. For example, in example (9) above, reproduced as (57), there is no implication that the presence of the bird affects 'him' in any way. There is not even any implication that 'he' is aware of it.

(57) Det fløy en fugl [over hodet på ham] there flew a bird over head.DEF on him 'A bird flew over his head.'

An interesting contrast is given by the corresponding German sentence (58). This sentence has the dative external possessor construction, and implies that 'he' is in some way strongly affected by the presence of the bird.¹⁰

(58) *Ihm* flog schon wieder ein Vogel über den Kopf him.DAT flew already again a bird over the head 'Again, a bird flew over his head.'

Another sentence that shows clearly that the possessor in the BIP construction has no semantic relation to the verb is example (13) above, reproduced as (59). In this sentence, the BIP noun phrase is embedded in a subject noun phrase. The possessor denotes a dead person, which in itself excludes the kind of affectedness effect that is a part of the dative external possessor construction.

(59) Sår i **underlivet på den drepte** viste også at ... (auth) wounds in lower.abdomen.DEF on the killed showed also that .. 'Wounds in the lower abdomen of the murdered person also showed that ...'

¹⁰ Sentence (58) was constructed by one of the reviewers, who suggested that it might sound plausible in a context like Daphne du Maurier's *The Birds* (about a bird attack).

6. Comparing Norwegian to French and German

From the discussion given above, it is clear that the PP possessor constructions in Norwegian are both similar to and different from the dative external possessor construction in languages such as French and German.

Norwegian is different from French and German in that Norwegian has the BIP construction in which the possessor and the body part noun are one constituent. There can be no doubt that the possessor and the body part noun are two constituents in the dative external possessor construction in French and German. This is also the case when French uses the 'dative equivalent' PP with \acute{a} in sentences such as (60).

```
(60) J'ai coupé les cheveux à Pierre (Guéron 1985: 59) I have cut the hair on Pierre 'I have cut Pierre's hair.'
```

Kayne (1975: 143–44) argues that the PP is not a part of the phrase headed by the body part noun, using clefting and pronominalization as arguments. This view seems to be accepted in the literature (see e.g. Vergnaud & Zubizarreta 1992: 618).

Norwegian is similar to French and German in that Norwegian has the BEP construction with an external possessor. This construction can be seen as an equivalent of the dative external possessor construction, as originally proposed by König & Haspelmath (1998) and Haspelmath (1999). The constructions are not identical, however. An important difference is that the dative external possessor construction is more general than the BEP construction. The BEP construction is limited to transitive verbs, which realize the body part noun as an object (see section 3). The dative external possessor construction, on the other hand, is not restricted by the valency of the verb. For example, the verb can be intransitive, as in the French (61).

```
(61) Je lui ai marché sur les pieds
I him.DATIVE have stepped on the feet
'I stepped on his feet.'
```

A Norwegian translation of (61) can render the dative in as a PP, but this PP would be an internal possessor in a BIP noun phrase, as was shown to

be the general case when the body part noun is the object of a preposition. (A different way of rendering (61) is discussed in section 7.)

7. A comparison with possessor raising

Another construction with an external possessor is possessor raising, which realizes the possessor as a direct object, and the body part noun as the object of a locative preposition. An example is (62).

(62) Hun slo ham i hodet she hit him in head.DEF 'She hit him in the head.'

A difference between Norwegian and other languages whose possessor raising construction has been described is that Norwegian allows possessor raising not only with transitive verbs. Unergative verbs can also be used in this construction, as shown in Lødrup (2009b), who argues that their object is a non-thematic direct object. An example is (63).

(63) Jeg tråkket ham på føttene I stepped him on feet.DEF 'I stepped on his feet.'

Example (63) might look like an instance of the dative external possessor construction. However, Lødrup (2009b) argues that it is an instance of possessor raising. Norwegian does not have any direct equivalent of the dative external possessor construction. This fact is clear when examples (64) and (65) are compared. The French example (61) above, reproduced below as (64), has a body part noun object and a pronominal dative possessor. Its Norwegian equivalent, example (65), is completely unacceptable. (Example (65) is a word-by-word translation, in which the French pronoun is rendered by a Norwegian pronoun.)

(64) Je **lui** ai coupé **les cheveux** (Guéron 1985: 59)
I him.DAT have cut the hair
'I cut his hair.'

¹¹ The term *possessor raising* is sometimes used of the dative external possessor construction; this is avoided here.

(65) *Jeg har klippet ham håret
I have cut him hair.DEF
'I have cut his hair [intended].'

The Norwegian (65) is not well formed as a dative external possessor construction (which Norwegian does not have), and not as a possessor raising construction (which can only realize the possessor as a direct object).

In the absence of a dative external possessor construction, it is interesting that the two constructions involving external possessors in Norwegian in a sense supplement each other. The BEP construction is only possible when the object realizes the body part noun. This means that the BEP construction is grammatical only when possessor raising is not (in sentences such as (65)).

On the other hand, there is no guarantee that an external possessor is always an option in Norwegian. If neither the possessor nor the body part noun is the object, as in (66), an external possessor is not possible. However, the BIP construction is still an option (beside the regular possessives).

(66) Jeg sprutet insektmiddel i håret på ham I sprayed insecticide in hair.DEF on him 'I sprayed insecticide in his hair.'

8. Diachronic issues and a comparison to Icelandic

There seems to have been a development in Norwegian from an external to an internal possessor. König & Haspelmath (1998: 587) hint that this development might have taken place in Icelandic.¹² Old Norse used a possessive dative with inalienable possession, see Faarlund (2004: 170–71). One of his examples is (67).

(67) ok fell fyrir foetr porkatli and fell before feet.ACC Thorkel.DAT 'And fell before Thorkel's feet.'

¹² The end result in Icelandic is not identical to the Norwegian construction, however. For example, the choice between 'on' and 'in' mentioned in footnote 2 (Thráinsson 2007: 94–95; Stolz et al. 2008: 114–16) makes it look more like a regular locative.

The possessive dative was not a part of the same phrase as the possessed noun (Faarlund 2004: 111). The dative could precede the possessed noun, or follow it (Skard 1951: 13).

A PP with the preposition \dot{a} 'on' could be used as an alternative to the dative. This preposition corresponds to Modern Norwegian $p\dot{a}$ 'on'. Skard (1951) gives the Icelandic example (68) (Skard 1951: 3), and the Norwegian (69) (Skard 1951: 56), both from the 14. century.

- (68) stóð þá spjótit út um herðarnar á þóri stood then spear.DEF out of shoulders.DEF on Thor 'Then, the spear stood out of Thor's shoulders.'
- (69) *bu skalt ei vita fyr en ek hifuir uppi iliannar a þer* you shall not know before than I raise up heels on you 'I will throw you upside down before you notice.'

The historical development of this kind of sentence has not been investigated. An investigation would be problematic in several ways, partly because of the nature of the written sources, and partly because it would be difficult to decide questions of syntactic structure on the basis of written texts. It seems to be reasonable, however, to assume that the possessor PP in sentences such as (68)—(69) was originally not a part of the body part noun phrase, but rather an external possessor (like the French PP in sentences such as (60) above). The Modern Norwegian BIP construction must be the result of a reanalysis of the constituency in sentences such as (68)—(69). The Modern Norwegian BEP construction can then be seen as a relict of the original construction.

The Icelandic body part noun construction gives an interesting parallel to the Norwegian one, in that Icelandic also gives evidence for both a one constituent and a two constituent analysis. It is clear that the body part noun and the possessor PP can be one constituent in Icelandic. They can occur together in front of the finite verb, as in (70), which gives conclusive evidence for constituency in a verb second language.

(70) *Hálsinn á honum* var grannur (Thráinsson 2007: 96) neck.DEF on him was slim 'His neck was slim.'

At the same time, the possessor PP can precede or follow a body part noun object, as shown in (71)—(72) (see Stolz 2008: 136—39). A PP with a light pronoun often precedes it (Kjartan Ottosson pc), making a one constituent analysis impossible.

- (71) *Han nuddaði á henni fæturna* (König & Haspelmath 1998: 559) he massaged on her feet.DEF 'He massaged her feet.'
- (72) altarboy .. nuddaði fæturna á Goddess Lillith (auth) altarboy massaged feet.DEF on Goddess Lillith 'Altarboy massaged Goddess Lillith's feet.'

These facts indicate that Icelandic, like Norwegian, has both a one constituent and a two constituent analysis of the body part noun and the possessor PP.

9. The internal structure of the BIP construction

Section 8 proposed that the BIP construction is the result of a reanalysis of the sequence $body\ part\ noun-PP$ as one constituent. This change must have brought with it a new syntactic relation between the possessor PP and the body part noun. However, it is not clear what syntactic relation this could be.

One possibility is that the possessor PP has entered the system of possessives. The regular possessives of Norwegian that were mentioned in section 2 are the genitive, the possessive pronoun, and the possessive PP with *til* 'to'. These possessives cannot co-occur with each other, or with the possessor PP in the BIP construction, as shown in (73)—(74).

- (73) *hodet hans til ham head.DEF his to him
- (74) *hodet hans på ham head.DEF his on him

One argument that the possessor PP in the BIP construction should be considered a possessive concerns the syntax of indefinite body part nouns. Indefinite body part nouns can occur with a possessor PP, as shown in (75).

(75) De måtte operere en finger på henne they must operate a finger on her 'They had to operate one of her fingers.'

However, a sequence of an indefinite body part noun and a possessor PP seems to resist an analysis as a BIP noun phrase. Topicalization and clefting, as in examples (76)–(77), do not sound good.

- (76) ?? En finger på henne måtte de operere a finger on her must they operate
- (77) ??Det var ikke bare **en finger på henne** de måtte operere it was not only a finger on her they must operate

The sequence *body part noun* – PP is always a BIP noun phrase when governed by a preposition. In this position, an indefinite body part noun is unacceptable, as shown in examples (78)—(79).

- (78) Det var infeksjon i fingrene på henne / ??en finger på henne there was infection in fingers.DEF on her / a finger on her 'There was an infection in her fingers / one of her fingers.'
- (79) Diamantene i ørene på henne / ??et øre på henne funklet diamonds.DEF in ears.DEF on her / an ear on her sparkled 'The diamonds in her ears / one of her ears were sparkling.'

Examples (76)—(77) and (78)—(79) show that the BIP construction requires the definite form of the body part noun. Requiring the definite form of the noun head is a property of the two regular possessives that follow the noun in Norwegian: the postponed possessive pronoun and the possessive PP with *til* 'to' (see examples (3) and (4) above). The fact that this is also a requirement in the BIP construction gives an argument that the phrase internal possessor PP has entered the system of possessives.

10. More about the distribution of the body part noun phrases

Section 4 showed that there are heavy restrictions on the structure and distribution of the body part noun phrase in the BIP/BEP-constructions: it cannot usually be a subject, it only appears in physical contexts, it cannot take non-restrictive modification, and it is usually singular. There are no such restrictions when a body part noun takes a regular possessive. An important fact is that these restrictions are more general. This section shows that they also hold of other constructions in which the possessor of the body part noun is not realized as a regular possessive. They also hold of simple reflexives, to the extent that they are applicable.

10.1 Possessor raising

Possessor raising is another construction where body part noun phrases are used in physical contexts. In this construction, the body part noun is always realized as the object of a locative preposition, as in example (80).

(80) Hun slo ham i hodet she hit him in head.DEF 'She hit him in the head.'

When body part noun denotes something that we have only one, it is singular, as shown in example (81). Furthermore, it does not usually take non-restrictive modification.¹³ The adjective in example (82) can hardly get a non-restrictive interpretation, and the sentence gives the impression that 'he' has more than one head.

(81) *Hun slo dem i hodet / *hodene* she hit them in head.DEF / heads.DEF 'She hit them in the head / heads.'

¹³ Examples can be found in which body part noun take a non-restrictive modifier, as in

⁽i). However, this sounds very non-colloquial.

⁽i) Jeg kysset ham ømt på den fyldige munnen (auth)

I kissed him tenderly on the full mouth.DEF

^{&#}x27;I kissed him tenderly on his full mouth.'

(82) Hun slo ham i det skitne hodet she hit him in the dirty head.DEF 'She hit him in the dirty head.'

10.2 Implicit possessives

Norwegian has another construction which could be taken to involve an external possessor with a body part noun. In examples (83)—(84), there is no realized possessive within the noun phrase.

(83) *Han tørket pannen*he dried forehead.DEF
'He dried his forehead.'

(84) *Han smurte solkrem i pannen* he applied sun.lotion to forehead.DEF 'He applied sun lotion to his forehead.'

The definite noun *pannen* 'forehead.DEF' in (83)—(84) could refer to a forehead that has been mentioned in the preceding discourse, say Anna's forehead. This interpretation is irrelevant in this context. The interesting option is the 'implicit possessive interpretation', in which the forehead is understood as 'his' forehead. With this interpretation, (83) and (84) could be the first sentence of a text (if there was a subject known to the reader, e.g. the name of some celebrity). This means that Norwegian does not always have to realize a possessive in a noun phrase when the possessor is the closest subject (Lødrup 1999, 2007, 2009a). This option exists with body part nouns and nouns referring to objects in "the personal domain" (Bally 1926/1996), e.g. vehicles, furniture, tools, personal items, etc.

These noun phrases are restricted to the physical contexts.¹⁴ Outside physical contexts, a realized possessive must be used, for example in sentences such as (85)–(86). If the possessives in (85)–(86) were removed,

¹⁴ König & Haspelmath (1997: 575–76) say that implicit possessives in Norwegian are possible with verbs of "direct bodily movements" and "routine actions" [my translations HL]. This generalization is too restrictive, as can be seen in (i), which does not require any previous mention of a bathtub.

⁽i) Han fylte øl i badekaret he filled beer in bathtub.DEF 'He filled beer in his bathtub.'

they could not get the implicit possessive interpretation. (They would then show the regular use of definiteness, in which the forehead must have been mentioned in the preceding discourse.)

- (85) Han beskrev pannen sin he described forehead.DEF REFL.POSS 'He described his forehead.'
- (86) Han tenkte på pannen sin he thought of forehead.DEF REFL-POSS 'He thought of his forehead.'

The noun in the implicit possessive construction is always singular, as shown in example (87). Furthermore, it does not take non-restrictive modification; (88) cannot have the implicit possessive interpretation.

- (87) **De** hadde tatoveringer på magen / *magene they had tattoos on stomach.DEF / stomachs.DEF 'They had tattoos on their stomachs.'
- (88) *Han* vasket den lubne fingeren he washed the fat finger.DEF 'He washed his fat finger.'

10.3 Reflexive pronouns

A traditional idea is that there is a connection between body part nouns and reflexive pronouns (e.g. Faltz 1985: 31–34; Guéron 1985; Koenig 1999; Safir 2004: 195–98). Norwegian has the simple reflexive *seg* and the complex reflexive *seg selv*. The interesting form in the present context is the simple reflexive *seg*. When the simple reflexive is bound by the closest subject, it shows a distribution parallel to that of body part nouns (Lødrup 1999, 2007). Simple reflexives then occur in physical contexts, as in examples (89)–(90), while non-physical contexts require the complex reflexive, as in (91)–(92).

(89) *Han tørket seg* he dried REFL 'He dried himself.'

- (90) *Han smurte solkrem på seg* he applied suntan.lotion on REFL 'He applied suntan lotion on himself.'
- (91) Han beskrev seg selv / *seg he described REFL SELF / REFL 'He described himself.'
- (92) Han tenkte på seg selv / *seg he thought of REFL SELF / REFL 'He thought of himself.'

Reflexive pronouns do not distinguish number in Norwegian, and they cannot be modified, so these properties cannot be tested. Even so, the physical context requirement gives a striking parallel to the constructions with body part nouns. Lødrup (1999, 2007) proposes that the simple reflexive in Norwegian is a kind of body part noun. This gives a basis for their shared properties. (The complex reflexive is seen as an elsewhere form.)

The restrictions on the BIP/BEP-constructions were shown to be more general restrictions on body part noun constructions. The natural questions to be asked are then why these restrictions exist, and how they should be implemented in syntax. These questions will have to be left to future research.¹⁵

11. Conclusion

The Norwegian PP possessor is both similar and different from the dative external possessor in languages such as French and German. The PP possessor can be external to the body part noun phrase. It then shares important properties with the dative external possessor, even if the Norwegian construction is more limited in only occurring with transitive

Lødrup (2009a) discusses the fact that nouns with implicit possessives share grammatical properties with nouns with simple reflexives. The account given is based upon the assumption that a possessor binds a body part noun in the same way as an antecedent binds a reflexive. It would be difficult to extend this account to the facts discussed here, because (at least) the internal possessor in the BIP construction does not seem to have a binding relation the body part noun.

verbs. However, the PP possessor can also be an internal possessor, a part of the body part noun phrase. It can then be analyzed as a possessive. This option seems to represent an innovation in Norwegian.

It was also shown that the constructions with a body part noun and a PP possessor are restricted in various ways, concerning both structure and distribution. These restrictions were shown to be more general restrictions on the structure and distribution of body part noun phrases.

References

- Bally, Charles (1996/1926) The expression of concepts of the personal domain and indivisibility in Indo-European languages. (Translated by Christine Béal and Hilary Chappell.) In Hilary Chappell & William McGregor (eds.), *The Grammar of Inalienability: A Typological Perspective on Body Part Terms and the Part-Whole Relation*, pp. 31–61. Berlin: Mouton de Gruyter.
- Bresnan, Joan (1982) The passive in lexical theory. In Joan Bresnan (ed.), *The Mental Representation of Grammatical Relations*, pp. 3–86. Cambridge, MA: MIT Press. —— (2001) *Lexical-Functional Syntax*. Oxford: Blackwell.
- Chappell, Hilary & William McGregor (1996) Prolegomena to a theory of inalienability. In Hilary Chappell & William McGregor (eds.), *The Grammar of Inalienability: A Typological Perspective on Body Part Terms and the Part-Whole Relation*, pp. 3—30. Berlin: Mouton de Gruyter.
- Faarlund, Jan Terje (2004) The Syntax of Old Norse. Oxford: Oxford University Press.
- Faarlund, Jan Terje, Svein Lie & Kjell Ivar Vannebo (1997) *Norsk referansegrammatikk*. Oslo: Universitetsforlaget.
- Faltz, Leonard M. (1985) Reflexivization: A Study in Universal Syntax. New York: Garland
- Guéron, Jacqueline (1985) Inalienable possession, PRO-inclusion and lexical chains. In Jacqueline Guéron, Hans-Georg Obenauer & Jean-Yves Pollock (eds.), *Grammatical Representation*, pp. 43–86. Dordrecht: Foris.
- —— (2006) Inalienable Possession. In Martin Everaert & Henk van Riemsdijk (eds.), *The Blackwell Companion to Syntax*. Volume II. Malden, MA: Blackwell, 589—638.
- Haspelmath, Martin (1999) External possession in a European areal perspective. Doris L. Payne & Immanuel Barshi (eds.), *External Possession*, pp. 109–135. Amsterdam: John Benjamins,
- Heine, Bernd (1997) *Possession: Cognitive Sources, Forces, and Grammaticalization.* Cambridge: Cambridge University Press.
- Julien, Marit (2005) *Nominal Phrases from a Scandinavian Perspective*. Amsterdam: John Benjamins.
- Kayne, Richard S. (1975) French Syntax: The Transformational Cycle. Cambridge, MA: MIT Press.

- Koenig, Jean-Pierre (1999) French body-parts and the semantics of binding. *Natural Language and Linguistic Theory*, 17(2): 219–265.
- König, Ekkehard (2001) Internal and external possessors. In Martin Haspelmath, Ekkehard König, Wulf Österreicher & Wolfgang Reible (eds.), *Language Typology and Language Universals*, vol. 2, pp. 970—978. Berlin: de Gruyter.
- König, Ekkehard & Martin Haspelmath (1998) Les constructions à possesseur externe dans les langues de l'Europe. In Jack Feuillet (ed.), *Actance et valence dans les langues de l'Europe*, pp. 525—606. Berlin: Mouton de Gruyter.
- Landau, Idan (1999) Possessor raising and the structure of VP. *Lingua* 107(1–2): 1–37. Lee-Schoenfeld, Vera (2006) German possessor datives: raised and affected. *Journal of Comperative Germanic Linguistics* 9(2): 101–142
- Lødrup, Helge (1999) Inalienables in Norwegian and binding theory. *Linguistics* 37(3): 365–388.
- —— (2007) A new account of simple and complex reflexives. *Journal of Comparative Germanic Linguistics* 10(3): 183—201.
- —— (2009a) Implicit possessives and reflexive binding in Norwegian. Forthcoming in *Transactions of the Philological Society*.
- —— (2009b) Looking Possessor Raising in the mouth: Norwegian Possessor Raising with unergatives. Forthcoming in Miriam Butt & Tracy Holloway King (eds.), *Proceedings of the LFG09 Conference*. Stanford, CA: CSLI Publications.
- Safir, Ken (2004) The Syntax of Anaphora. Oxford: Oxford University Press.
- Seiler, Hansjakob (1983) Possession as an Operational Dimension of Language. Tübingen: Narr.
- Skard, Vemund (1951) Dativstudien: Dativus sympatheticus und Dativus comparationis in der norrönen Sprache. Skrifter (Det Norske videnskaps-akademi i Oslo) Historisk-filosofisk klasse. Oslo: Dybwad.
- Stolz, Thomas; Kettler, Sonja; Stroh, Cornelia & Urdze, Aina (2008) *Split Possession:* An Areal-linguistic Study of the Alienability Correlation and Related Phenomena in the Languages of Europe. Amsterdam: John Benjamins
- Teleman, Ulf; Staffan Hellberg & Andersson, Erik (1999) Svenska akademiens grammatik. Volume 3: Fraser. Stockholm: Svenska Akademien.
- Thráinsson, Höskuldur (2007) *The Syntax of Icelandic*. Cambridge: Cambridge University Press.
- Vergnaud, Jean-Roger & Zubizarreta, Maria Luisa (1992) The definite determiner and the inalienable construction in French and English. *Linguistic Inquiry* 23: 595–652.
- Wierzbicka, Anna (1979) Ethno-syntax and the philosophy of grammar. *Studies in Language* 3(3): 313–383.

Contact information:

Helge Lødrup
University of Oslo
Department of Linguistics and Scandinavian Studies
Pb 1102, Blindern
NO-0317 Oslo
Norway
e-mail: helge(dot)lodrup(at)ilf(dot)uio(dot)no
http://folk.uio.no/helgelo/index.html