

**LOOKING POSSESSOR RAISING IN
THE MOUTH: NORWEGIAN
POSSESSOR RAISING WITH
UNERGATIVES**

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Abstract

It has always been a standard assumption in the literature that possessor raising (as in *She kissed him on the cheek*) is limited to transitive verbs, and the theory of possessor raising has been designed to capture this restriction. This paper shows that Norwegian possessor raising is productive not only with transitive verbs, but also with unergative verbs (e.g. *Han tråkket henne på føttene* 'he stepped her on the feet'). The 'raised' possessor is argued to be non-thematic with unergative verbs. Apart from this difference, possessor raising with transitive and unergative verbs is very similar syntactically. It is proposed that possessor raising is a unitary phenomenon in Norwegian, and it is shown how Lexical Functional Grammar can give a unified analysis in a natural way. The similarity of possessor raising to equi ("control") and raising in the verbal domain is also discussed.

1 Introduction¹

The term possessor raising (or possessor ascension) is used for sentences such as (1). The intuition behind this term is that the object is 'raised' from the possessor position of the body part noun phrase. No raising is involved in the analysis to be proposed here, but the term is kept as a descriptive term.

(1) She kissed **him** on **the cheek**.

Possessor raising is a traditional topic in syntactic research. It has been claimed to belong to "the core of the grammatical function changing processes that are allowed by universal grammar" (Baker 1988:11), even if it has never received the same attention as for example the passive. However, it was often discussed in the theoretical literature some time ago, both in Relational Grammar (Frantz 1981:30-31, Perlmutter and Postal 1983, Blake 1990:99-103), and Principles and Parameters Theory (Baker 1988:268-277). There are also descriptions of possessor raising in various languages (e.g. Blake 1984, O'Connor 1996). The literature on the grammar of possession also contains some discussion of possessor raising, including criticism of its

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traditional conception (see e.g. Chappell and McGregor 1996, Heine 1997, Payne and Barshi 1999).

A complication is that the term possessor raising has been used for two phenomena, which are in principle completely different. The term will be used here about the grammatical construction found in sentences such as (1) above. The relevant sentences have a transitive verb, which gives its internal role to an object. This object is understood as the possessor of a body part noun, which is the object of a locative preposition (see Levin 1993:71-72 on possessor raising in English).

It should be mentioned that possessor raising to subject is also often assumed (e.g. Blake 1990:99-102, Baker 1988:274). An example is (2). Possessor raising to subject is difficult to delimit, and needs further study. It plays a minor role in this paper.

(2) **Han** verker i **leddene**.

he aches in joints.DEF

His joints ache.

Possessor raising seems to be a common phenomenon in the languages of the world. In this respect, it differs from the other process sometimes called possessor raising. This construction, which will be called the dative external possessor construction, seems to be common in Europe only (Haspelmath 1999). An example is the French (3) (from Vergnaud and Zubizarreta 1992:597).

(3) Le médecin leur a examiné la gorge.

the doctor them.DAT has examined the throat

The doctor examined their throats.

In (3), the body part noun is the direct object, while the possessor is realized as a dative. In (1), on the other hand, the body part noun is the object of a preposition, while the possessor is the direct object.

The dative external possessor construction is less restricted than possessor raising. The dative possessor is not included in the verb's regular valency, differing from the direct object possessor. There are fewer restrictions on the syntax and semantics of the verb, and there are connections to other uses of the dative (see e.g. Guéron 1985, Neumann 1996, Lee-Schoenfeld 2006).

The distinction between possessor raising and the dative external possessor construction is in principle sharp. One difference that is important to this paper is that the dative external possessor construction has no transitivity requirement, as shown in the French sentences (4)-(5).

- (4) Une pierre lui tombe sur la tête.
a stone him.DAT falls on the head
 A stone falls on his head.
- (5) Je lui ai marché sur les pieds.
I him.DAT have stepped on the feet
 I stepped on his feet.

Possessor raising, on the other hand, has always been assumed to require a transitive verb. This is not only a descriptive fact of English (as stated e.g. in Levin 1993:71-72) and other languages, it has also been important to theories of possessor raising.

As possessor raising was originally conceived in Relational Grammar, the initial object of the verb was the body part noun phrase with the possessor. This possessor raised out of this object to become a new object. The requirement for an initial object was crucial, because it made the rule conform to "The Relational Succession Law" of Relational Grammar (Perlmutter and Postal 1983), which says that a raised element must take the syntactic function of the element that it raises out of.

The transitivity requirement was also important to Baker 1988. He proposed an analysis of possessor raising in which the body part noun incorporates 'abstractly' into the verb (Baker 1988:273). In his framework, this causes the (underlying) possessor to be governed by the verb, just like an object (Baker 1988:274). Baker points out that this analysis is only possible when the raised noun phrase is the possessor of a transitive verb's direct object, or of an unaccusative verb's surface subject. He claims that "this prediction is correct across languages" (Baker 1988:274).

It has been noticed that English has a couple of fixed expressions which could be taken to represent possessor raising with an intransitive verb. An example is (6).

- (6) Don't look a gift horse in the mouth.

2 The basic Norwegian facts

Norwegian is like English in not having a productive dative external possessor construction,² as shown by (7)-(8), which are word-by-word translations of the French examples (3)-(4).

² Old Norse had a dative external possessor construction (Faarlund 2004:170-71). Some relics can be found in fixed expressions and archaisms, such as (i).
 (i) De stakk **ham** en dolk i **ryggen**. (from Åfarli and Eide 2003:126)
they stabbed him a dagger in back.DEF
 They stabbed a dagger into his back. [footnote continues on next page]

- (7) *Legen har undersøkt dem halsen.
doctor.DEF has examined them throat.DEF
 The doctor has examined their throats. [intended]
- (8) *En stein faller ham på hodet.
a stone falls him on head.DEF
 A stone falls on his head. [intended]

Norwegian also lacks morphological case, apart from a nominative - oblique distinction in some pronouns. It also does not have any direct equivalents to the "free" datives of case languages such as German, except in some fixed expressions and archaisms (Western 1921:142-44, Faarlund et al. 1997:723). An example is (9) (from the author Bjørnstjerne Bjørnson, taken from Western 1921:142-43).

- (9) Han gadd ikke staa nogen til regnskap.
he bothered not stand anybody to account
 He did not bother to account to anybody.

Faarlund et al. 1997:719-20 say that possessor raising in Norwegian is primarily used when the verb is transitive. However, they say that a couple of intransitive verbs can be used in more or less fixed expressions. (A similar claim can be found in Lødrup 1999:385 note 10.) Their examples are (10)-(11).

- (10) Dei lo **sjefen** opp i **ansiktet**.
they laughed boss.DEF up in face.DEF
 They laughed in the boss' face.
- (11) Alt maset gjekk **meg** på **nervane**.
all nagging.DEF went me on nerves.DEF
 All the nagging got on my nerves.

Western 1921:142-44 also gives examples with intransitive verbs, such as (12) (from the author Vilhelm Krag).

The closest parallel to a dative external possessor construction in Modern Norwegian is a construction with a PP possessor, as in example (ii). This possessor could be taken to be external or internal to the noun phrase, see Lødrup 2009 for discussion.

- (ii) Legen har undersøkt halsen på dem.
doctor.DEF has examined throat.DEF on them
 The doctor has examined their throats.

- (12) Rædselen fra 1801 sad endnu **Hvermand i Blodet**.
fear.DEF from 1801 sat still everybody in blood.DEF
 The fear from 1801 was still in everybody's blood.

Western 1921:143 says that the intransitive construction is primarily possible in the literary language. Today, most of his examples must be considered unacceptable and/or fixed expressions.

It is striking that most of Western's examples have non-agentive verbs and inanimate subjects. It has never been noticed that Norwegian has a productive option for sentences such as (13) with agentive intransitive verbs, i.e. unergative verbs.

- (13) Han tråkket **henne på føttene**.
he stepped her on feet.DEF
 He stepped on her feet.

Example (13) looks similar to sentences with the dative external possessor construction in e.g. French and German (compare example (5) above). However, it is impossible to assume that this construction exists in Norwegian since it is not productive with transitive and unaccusative verbs (see (7)-(8) above). A better alternative would be to take example (13) as an instance of possessor raising.

Regular possessor raising with transitive verbs requires that the verb denote some form of physical contact (see Levin 1993:71-73). Looking at Norwegian unergative verbs that fit this description, it is difficult to avoid the conclusion that (what could be seen as) possessor raising is completely productive. Examples such as (14)-(18) are easily found by searching the internet. (Sentences found on the internet are marked "auth".)

- (14) Da bokset bestandig **mormor ham i magen**. (auth)
then boxed always grandma him in stomach.DEF
 Grandma would then always give him a punch in his stomach.
- (15) Frøken ... pirket **meg i ryggen** med pekestokken. (auth)
Miss poked me in back.DEF with pointer.DEF
 The teacher poked me in my back with the pointer.
- (16) Mor smilte og rusket **ham i håret**. (auth)
Mother smiled and ruffled him in hair.DEF
 Mother smiled and ruffled his hair.
- (17) det er [ikke] noe lurt å ... klå **henne på rompa**. (auth)
it is not any smart to paw her on behind.DEF
 It isn't very smart to paw her behind.
- (18) Eminem spyr **ham i ansiktet**. (auth)
Eminem vomits him in face.DEF
 Eminem vomits in his face.

There are also sentences in which there is physical contact in an extended sense only, such (10) above and (19).

- (19) Legen bør da lyse **deg** i **halsen**. (auth)
physician.DEF should then light you in throat.DEF
The physician should then shine a light in your throat.

Without a body part noun as an object of the preposition, the construction is not possible, consider examples (20)-(21).

- (20) *Hun tråkket ham på mobilen.
she stepped him on cell-phone.DEF
She stepped on his cell phone. [intended]
- (21) *Hun pirket ham i stolen.
she poked him in chair.DEF
She poked on his chair. [intended]

Nouns denoting garments can be used in some cases; an example is (22). These nouns can also be used in regular possessor raising with transitive verbs, as in example (23).

- (22) Antonsen river **han** i **skjorten**. (auth)
Antonsen tears him in shirt.DEF
Antonsen tears his shirt.
- (23) jeg holdt **arrestanten** i **kraven**. (auth)
I held prisoner.DEF in collar.DEF
I held the prisoner by his/her collar.

3 Grammatical properties of unergative possessor raising

Examples (14)-(19) with unergative verbs look like possessor raising sentences with transitive verbs. They also share important grammatical properties. For example, a transitive and an intransitive verb can coordinate, both in the active and the passive, as shown in (24)-(25).

- (24) Han både kysset og tråkket **henne** på **føttene**.
he both kissed and stepped her on feet.DEF
He both kissed (her feet) and stepped on her feet.
- (25) **Hun** ble både kysset og tråkket på **føttene**.
she was both kissed and stepped on feet.DEF
Her feet were both kissed and stepped on.

An important point to be made is that the objects of the intransitive verbs should be considered non-thematic, in the sense that they do not get a thematic role from their governing verb. (They get a possessor role from the body part noun, see section 5.1.) This kind of possessor raising will be called unergative possessor raising, to distinguish it from regular possessor raising with transitive verbs. Evidence that the objects are non-thematic will be given in the discussion to follow.

The option of non-thematic objects is explained by the unergativity of the verbs in question. Unergative verbs are known to take a non-thematic object in certain constructions (consider 'Burzio's generalization'). A clear parallel is resultatives. It is well known that unergatives can also take a non-thematic object in resultative sentences (see e.g. Levin and Rappaport Hovav 1995). An example is (26).

- (26) Han tråkket føttene hennes gule og blå.
he stepped feet.DEF her yellow and blue
 He stepped her feet black and blue.

An alternative analysis in which the object is thematic would have to assume that the verbs in question are transitive in possessor raising sentences only.³ This kind of analysis could not account for the data given below, and in section 4.⁴

³ Assuming that the object with unergative possessor raising is non-thematic, one could imagine an analysis in which the object is a subject in a small clause, parallel to some analyses of resultatives. There seems to be no motivation for a small clause analysis, however, because there is no predication relation between the possessor and the PP. (Note that a small clause analysis could not replace possessor raising, which is necessary to account for the relation between the possessor and the body part noun.)

⁴ A potential problem with analyzing these objects as non-thematic is the following: Hellan 1988:120 proposed that a non-thematic reflexive cannot be complex. Even so, a sentence with unergative possessor raising can take a complex reflexive object, as in (i).

- (i) Han tråkket **seg selv** på føttene.
he stepped REFL SELF on feet.DEF
 He stepped on his own feet.

It is not clear, however, if the generalization about non-thematic reflexives is correct. For example, the resultative expression 'sing oneself to sleep' is predicted to take the simple reflexive, but Sæbø 2009:122 points out that it is as common with the complex reflexive (*synge seg selv i søvn*) as with the simple reflexive (*synge seg i søvn*) on Norwegian web pages.

An argument that the object is non-thematic with unergative possessor raising concerns the adjectival passive. Unergative possessor raising differs from regular possessor raising with transitive verbs in not having adjectival passives, as shown in (27)-(28). This is expected when the object is non-thematic, because an adjectival passive can only be derived from a passive participle with a thematic subject (Carrier and Randall 1992, Levin and Rappaport Hovav 1995:43-46).

- (27) Nykysset på munnen kom hun løpende.
newly-kissed on mouth.DEF came she running
 Recently kissed on her mouth, she came running.
- (28) *Nyklasket på baken kom hun løpende.
newly-slapped on behind.DEF came she running
 Recently slapped on her behind, she came running. [intended]

The analysis of the object as non-thematic implies that the possessive object with unergative possessor raising is a regular, or direct, object, and not an oblique, or indirect, object. The reason is that a non-thematic object can only be a direct object; non-thematic indirect objects do not exist. This fact strengthens the parallel to regular possessor raising with transitive verbs, because it is uncontroversial that the object with regular possessor raising is a direct object.⁵

The syntactic restrictions on unergative possessor raising follow automatically when it is assumed that the possessor is a non-thematic direct object. The verb must be unergative to license the non-thematic object (when some fixed expressions and archaisms are put aside). Sentences (29)-(32) are therefore impossible.

- (29) *Vannet rant **henne** i **håret**.
water.DEF ran her in hair.DEF
 The water ran in her hair. [intended]
- (30) *Han helte **henne** vann i **håret**.
he poured her water.DEF in hair.DEF
 He poured water in her hair. [intended]
- (31) *En tann knakk **ham** i **underkjeven**.
a tooth broke him in lower-jaw.DEF
 A tooth broke in his lower jaw. [intended]

⁵ Western 1921:142 assumes that intransitive verbs take indirect objects in sentences with possessor raising. It must be noted, however, that he does not distinguish possessor raising from sentences with "free datives", and most of the examples he gives have unaccusative verbs.

(32) *Ola knekte **ham** en tann i **underkjeven**.

Ola broke him a tooth in lower-jaw.DEF

Ola broke a tooth in his lower jaw. [intended]

The non-thematicity of the object with unergative possessor raising makes it different from the dative possessor in the dative external possessor construction. The dative possessor is often assumed to have a semantic relation to the verb, and it could be considered a benefactive or a malefactive, or an affectee (see e.g. Guéron 1985, Lee-Schoenfeld 2006).

The non-thematicity of the object with unergative possessor raising also makes it different from the (equivalents of) "free" datives that can be found in some fixed expressions and archaisms in Norwegian (Western 1921:142-44, Faarlund et al. 1997:723), such as (8) above, reproduced here as (33).

(33) Han gadd ikke staa nogen til regnskap.

he bothered not stand anybody to account

He did not bother to account to anybody.

The "dative" *nogen* 'anybody' in (33) must be assumed to get a thematic role in its (derived) object function. There is no alternative source for a thematic role. (For example, the object of the preposition cannot be a source.) With unergative possessor raising, on the other hand, the object gets its only thematic role in its function as a possessor of the body part noun. A related difference concerns the option of alternating with a PP: The "dative" alternates with a PP with the preposition *for* 'for', like many regular indirect objects. With unergative possessor raising, on the other hand, the object cannot alternate this way.

4 Unergative - transitive alternations

4.1 The case of *nappe* 'remove, pull'

Investigating the range of unergative possessor raising, it is an important fact that the line between unergative verbs and transitive verbs is thin. Consider for example the verb *nappe* 'remove, pull'. This verb can take an object that denotes a thing being suddenly removed from its owner, as in (34).

(34) Han nappet lua hennes.

he removed cap.DEF her

He removed her cap.

When the verb takes an oblique (and no object), the verb has a slightly different meaning. There is not necessarily anything that is removed, and the verb just denotes a "pulling" movement. An example is (35).

- (35) Jeg napper i barten hans.
I pull in moustache.DEF his
 I pull his moustache.

The meaning of (35) is exactly the meaning found with possessor raising, as in (36).

- (36) Jeg ... napper **ham i barten**. (auth)
I pull him in moustache.DEF
 I pull his moustache.

It is clear, then, that the basis for possessor raising must be the intransitive verb in (35), and not the transitive verb in (34).

A group of verbs show the same pattern as *nappe* 'remove, pull' (e.g. *hugge* 'cut', *trykke* 'press', *sprute* 'splash', *rekke* 'come up to'). These verbs can take a thematic object, but this object cannot normally denote a person. Even so, they can take an object denoting a person in possessor raising. This raising must be unergative possessor raising, based on an intransitivized version of the verb.⁶

The resultative construction gives many parallel examples of verbs being intransitivized to add a "new" non-thematic object (Levin and Rappaport Hovav 1995:37-39). For example, the verb *spise* 'eat' can intransitivize and get a non-thematic object in a resultative sentence. An example is (37).

- (37) De spiste kjøleskapet tomt.
they ate fridge.DEF empty
 They ate the fridge empty.

4.2 The case of *dra* 'pull'

A group of verbs that behave somewhat different from *nappe* 'remove, pull' can be represented by the verb *dra* 'pull'. This verb can take a thematic object

⁶ The verb *ta* is interesting in this respect. Its basic meaning is 'take', but intransitive *ta* with an oblique means 'touch', as in (i). This meaning is not available for transitive *ta*. The verb also means 'touch' in sentences with possessor raising, such as (ii), which must be unergative possessor raising.

(i) Han tok på skulderen hennes.

he took on shoulder.DEF her

He touched her shoulder.

(ii) Mamma påstår at Elton John tok **henne** på **skulderen** en gang. (auth)

mama claims that Elton John took her on shoulder.DEF one time

Mama claims that Elton John once touched her on the shoulder.

that denotes the thing or person being pulled along, as in (38). If the thing or person does not move, it is not realized as an object of the verb, but rather as the object of a preposition, as in (39).

(38) Han dro henne til hulen.
he pulled her to cave.DEF
He pulled her to the cave.

(39) Han dro i henne.
he pulled in her
He pulled her.

With possessor raising, the object of *dra* 'pull' can get a thematic or a non-thematic interpretation, as shown in (40)-(41).

(40) Han dro **henne etter håret**.
he pulled her after hair.DEF
He pulled her by her hair.

(41) Han dro **henne i håret**.
he pulled her in hair.DEF
He pulled her hair.

Sentence (40) has a thematic object. Its meaning is that 'he' pulled 'her' along by the hair, for example to his cave. This is regular possessor raising. Sentence (41) has a non-thematic object. Its meaning is that 'he' pulls 'her' hair without making 'her' move, maybe violently to cause 'her' pain, or softly to caress 'her'. This is unergative possessor raising.

The behavior of verbs such as *nappe* 'remove, pull' and *dra* 'pull' gives strong evidence for the non-thematicity of the object with unergative possessor raising.

4.3 Interaction with the conative alternation

Some transitive verbs that allow regular possessor raising participate in the conative alternation (Levin 1993:41-42). They then take an oblique and no object; compare (42) and (43).

(42) Hunden slikket hånden hans.
dog.DEF licked hand.DEF his
The dog licked his hand.

(43) Hunden slikket på hånden hans.
dog.DEF licked on hand.DEF his
The dog licked on his hand.

This pattern can be found with several verbs (e.g. *klore* 'scratch', *gni* 'rub', *operere* 'operate', *male* 'paint'). When these verbs take an oblique, they are syntactically identical to the intransitive verbs that take unergative possessor raising. This means that possessor raising sentences with these verbs, such as (44), are syntactically ambiguous.

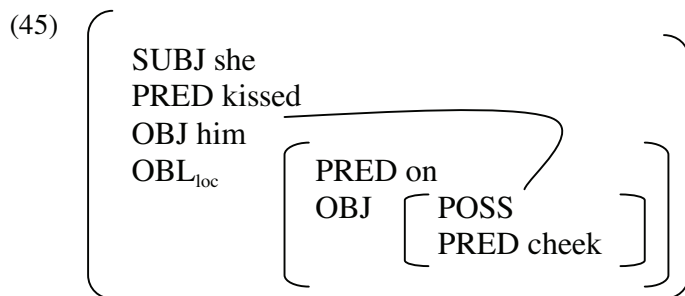
- (44) Hunden slikket **ham** på **hånden**.
dog.DEF licked him on hand.DEF
 The dog licked his hand.

Example (44) has one analysis as regular possessor raising with the transitive verb *slikke* 'lick', and one analysis as unergative possessor raising with the corresponding intransitive verb. One might expect this syntactic ambiguity to be correlated with semantic ambiguity, but it does not seem to be.

5 Grammatical treatment

5.1 Regular possessor raising with transitive verbs

The treatment of regular possessor raising with transitive verbs is rather straight forward in Lexical Functional Grammar (LFG). Possessor raising is structure sharing between the object of the verb and the possessor of the oblique object. The shared argument realizes both the object role of the verb and the possessor role of the body part noun. The simplified f-structure is as in (45) for *She kissed him on the cheek*.



The verbs in question are equipped with the equation in (46).⁷

$$(46) (\uparrow\text{OBJ}) = (\uparrow\text{OBL}_\theta \text{ OBJ POSS})$$

⁷ In the original LFG formalism, there was a general restriction to prohibit reference to more than two attribute names on either side of an equation. This was called Functional Locality, see Kaplan and Bresnan 1982:278, note 20. This restriction cannot be considered relevant in current LFG.

This equation can be simplified if obliques are treated as in Bresnan 1982. She sees the preposition of an oblique as a kind of case marker. The preposition and its object are co-heads, which gives a "flat" functional structure for the oblique with the preposition represented as a feature. The equation in (46) could then be replaced by the one in (47).

$$(47) (\uparrow\text{OBJ}) = (\uparrow\text{OBL}_\theta \text{ POSS})$$

The analysis given is not affected by the criticism that has been raised against the traditional conception of possessor raising, in which the possessor (in some sense) was moved out of the body part noun phrase.

Payne and Barshi 1999:7 say that "there is no 'raising' of anything" in sentences such as *She kissed him on the cheek*. What they have in mind is that the corresponding sentence without the oblique (*She kissed him*) is a complete sentence with a regular object. This intuition is captured here by treating 'him' as a regular object that realizes the verb's patient role. At the same time, the analysis given accounts for the relation between the object and the understood possessor of the body part noun. Body part nouns usually require a possessor to be syntactically realized (when they denote actual parts of a body, and not for example objects for anatomical study, see e.g. Vergnaud and Zubizarreta 1992), and it can be assumed that they assign a thematic role to their possessor.

The analysis given is also not affected by the criticism of possessor raising in e.g. Blake 1990:102-3, Chappell and McGregor 1996:6-7, Heine 1997:163-64. They claim that sentences with and without possessor raising are not synonymous, so the possessor raising rule is not "meaning preserving". This kind of criticism is without force here. There is no "underlying structure" in which the body part noun is an object, and there is no concept of "meaning preservation" involved.

5.2 Unergative possessor raising

Sentences with regular and unergative possessor raising are very similar grammatically, except for the differences that follow from the thematicity or non-thematicity of the object (for example concerning the adjectival passive, see section 3). The natural analysis is, then, that possessor raising in Norwegian does not distinguish between intransitive and transitive verbs. To say it another way, possessor raising should be one rule that unifies a thematic POSS with an object that is thematic or non-thematic. The rule in (46) is all that is needed to do exactly this — it only needs to apply to intransitive as well as transitive verbs.

To be more exact, the intransitive verbs in question must be unergative, as shown above. This follows automatically from the way syntactic features are

assigned to thematic roles in Lexical Mapping Theory (Bresnan and Zaenen 1990:49, Bresnan 2001:309). A patient gets the feature [-r(estricted)], while an agent gets the feature [-o(bject)]. A non-thematic argument can only get the feature [-r]; this follows from the understanding of "restricted" as "restricted to a particular thematic role". A verb can only take one [-r] argument in Norwegian (as in many other languages, see Bresnan and Moshi 1990, Alsina and Mchombo 1993). This is the reason a non-thematic object can only occur with unergative verbs, and not with unaccusative and transitive verbs. They already have a [-r] argument, the subject and the object, respectively. (Note that a locative does not stand in the way of a non-thematic object, because a locative gets the feature [-o].)

A reviewer asks where the unergative possessor raising structures are created. This question can be split in two, because there are two requirements for an unergative verb to undergo possessor raising: It needs an object and the equation in (46). Taking a non-thematic object is a general option for unergative verbs. The simplest assumption is that these objects are 'inserted freely', in the sense that an unergative verb can always have a lexical entry with a non-thematic object. Whether a resulting sentence is well formed depends upon other factors, including the availability of a thematic role from another source. The equation in (46) is inserted by a lexical rule, which is semantically conditioned. As mentioned above, possessor raising is only possible with verbs that denote physical contact (see Levin 1993:71-73), sometimes in an extended sense.

The account given of possessor raising to object could be generalized to include possessor raising to subject with unaccusative verbs. This task must be left to future research, because too little is known about possessor raising to subject. It is difficult to delimit, and it is not clear what the semantic conditions are.

5.3 The problem of possessives

The analysis given predicts that there can be no realized POSS with the body part noun in sentences with possessor raising. The reason is that this would create a conflict between the PRED of the POSS and the PRED of the object (and possibly other conflicts). Consider (48) and (49) with realized possessives. These sentences have a redundancy of expression that makes them less than perfect. Even so, they are not really unacceptable.⁸

⁸ The redundancy is somewhat less noticable when the noun is modified, as in (i)-(ii).

(i) Han kysset henne på den skadede tåen hennes.
he kissed her on the hurt toe.DEF her
 He kissed her on her hurt toe. [footnote continues on next page]

(48) Han kysset henne på føttene hennes.

he kissed her on feet.DEF her

He kissed her on her feet.

(49) Han tråkket henne på føttene hennes.

he stepped her on feet.DEF her

He stepped on her feet.

Examples (48)-(49) have a transitive and an unergative verb, respectively. An important difference between them is that example (48), with the transitive, could be an ordinary transitive sentence without possessor raising. With this analysis, it would be difficult to find anything wrong with it from a formal point of view. Only example (49), with the unergative, has no well formed analysis. It is difficult to avoid the unsatisfying conclusion that even if (48) and (49) are rather similar with respect to well-formedness, (48) is generated by the grammar, while (49) is not.

5.4 Possessor raising compared to equi and raising

Possessor raising shares interesting properties with equi (i.e. "control") and raising in the verbal domain. Standard examples of equi and raising are (50) and (51), in which the object is thematic and non-thematic, respectively.

(50) We persuaded him to come.

(51) We expected him to come.

Treating equi and raising the same way was proposed in Bresnan 1982 (see also Bresnan 2001:267-301). Her theory of control and complementation allows structure sharing between positions with or without thematic roles, as long as the shared argument gets a thematic role from at least one predicate (see the discussion of the Coherence Condition in Bresnan 2001:63). This is called functional control. Both *persuade* and *expect* have the equation in (52).

(52) (\uparrow OBJ) = (\uparrow XCOMP SUBJ)

One similarity between possessor raising on the one hand, and raising and equi in the verbal domain on the other hand, concerns what functions share an argument. The function on the left-hand side of the equations in (46) and (52) is OBJ. Another option is SUBJ, both with raising and equi verbs (such

(ii) Han tråkket henne på den skadede tåen hennes.

he stepped her on the hurt toe.DEF her

He stepped on her hurt toe.

as *seem* and *try*), and with verbs that take possessor raising to subject.⁹ (The latter case is illustrated in example (2) above.)

Both with possessor raising and raising and equi in the verbal domain, the choice between SUBJ and OBJ for each verb follows from the lexical rule of functional control (Bresnan 1982:322), which picks out the core function that is lowest on the relational hierarchy

Both with possessor raising and raising and equi in the verbal domain, an argument is shared between a core function and an embedded 'subject' function. This embedded 'subject' function is SUBJ with raising and equi, and POSS with possessor raising. SUBJ and POSS are functions that are closely related, as has been discussed in different frameworks over the years. From an LFG point of view, it is important that they are both unrestricted (Laczkó 1997), and highest in their domain on the relational hierarchy.

Another similarity between possessor raising on the one hand, and raising and equi in the verbal domain on the other hand, concerns syntactic ambiguity. It was shown in section 4 that sentences can be syntactically ambiguous between unergative and regular possessor raising. In the same way, sentences can be ambiguous between raising and equi. (This has been discussed several times, see e.g. Ruwet 1991.) One example is the Norwegian accusative with infinitive construction. In the analysis of Lødrup 2008, some verbs always take raising in this construction (e.g. *føle* 'feel' and *kjenne* 'feel'), some always take equi (e.g. *huske* 'remember', *oppdage* 'discover'), and some can take both (e.g. *se* 'see' and *høre* 'hear'). Apart from the differences that follow from the raising-equi distinction, accusative with infinitive sentences share syntactic and semantic properties. The syntactically ambiguous sentences are not necessarily semantically ambiguous, similar to the ambiguity seen in sentences with possessor raising (section 4.3).

5.5 Possessor raising in transformational syntax

It was shown that the classical LFG theory of control and complementation in Bresnan 1982 can give a unified analysis of Norwegian possessor raising. It is interesting to see how the same data can be accounted for in transformational syntax.

Possessor raising has been treated in different ways through the years. Baker 1988:273 noted that a raising analysis was incompatible with then current Principles and Parameters theory. Creating a "new" object to a verb was prohibited by the Projection Principle. There was also a problem with the object role of the verb, because role assignment could not take place after

⁹ In addition, OBJ₀ is an option with some equi verbs in some languages. It should be mentioned that it is not clear that possessor raising to subject is possible with a non-thematic subject.

movement. (It should be noted that this problem would not arise with unergative possessor raising.)

Current (versions of) Minimalism, on the other hand, would not prohibit a raising analysis of possessor raising with transitive verbs. However, there would have to be one difference from the classical conception of possessor raising. The PP must be present in underlying structure, because it cannot be "built" in the derivation. The possessor would have to raise from the object of this PP. In (versions of) Minimalism, it would not only be possible to raise the possessor to be a "new" object of the verb, it could also get a new thematic role after movement (see e.g. Hornstein 1999, Davies and Dubinsky 2004, Lee-Schoenfeld 2006). A Minimalist movement analysis along these lines is sketched in Ussery and Moonan 2004.

Unergative possessor raising would not in itself create new problems for Minimalism. Given the assumptions mentioned, it would be possible to give a unified analysis, in which regular and unergative possessor raising are treated the same way — just like in the classical theory of control and complementation in LFG (Bresnan 1982).

6 Conclusion

In Norwegian possessor raising, the raised possessor can be thematic or non-thematic. Apart from the differences that follow from this, possessor raising sentences share syntactic properties. LFG gives a framework that can account for this situation in a simple and enlightening way, by allowing structure sharing between positions with or without thematic roles.

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