

## Chapter 9

# Deagentivizing Norwegian verbs with reflexive and body part objects

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### 9.1 Introduction

The topic of this article is Norwegian sentences such as (1)-(4).<sup>1</sup>

- (1) Presidenten har skadet seg.  
 president.DEF has hurt REFL  
 'The president has hurt himself.'
- (2) Presidenten har skadet ryggen.  
 president.DEF has hurt back.DEF  
 'The president has hurt his back.'
- (3) Presidenten har operert seg.  
 president.DEF has operated REFL  
 'The president has undergone surgery.'
- (4) Presidenten har operert ryggen.  
 president.DEF has operated back.DEF  
 'The president has undergone back surgery.'

What is special about these sentences is that the verbs do not have their regular argument structure. Even if the verbs *skade* 'hurt' and *operere* 'operate' are usually agentive, the subjects in (1)-(4) can be interpreted as non-agentive: the person who gets hurt or goes through surgery.

In a lexicalist approach to syntax, this change in argument structure requires lexical rules to delete the agent argument and insert the new subject argument. The change in argument structure is obviously related to the presence of the simple reflexive or the body part noun. A corresponding option also exists in other languages, as in English *Tessa hurt herself*, *Tessa hurt her ankle* (from Levin 1993:226). However, the Norwegian case raises questions of the distribution of simple reflexives and definite body part nouns, which have no direct parallel in English.

Norwegian has a distinction between the simple reflexive *seg* and the complex reflexive *seg selv*. Their distribution has been the subject of discussion for decades. Standard accounts of Norwegian binding say that the simple reflexive cannot be used in local binding (e.g. Hellan 1988, Dalrymple 1993). The reflexive in example (5) is then considered non-thematic, a grammatical marker of intransitivization.

- (5) Presidenten har vasket seg.

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<sup>1</sup> Happy retirement, Mary! I admire your contributions to linguistics - especially LFG - in your multifaceted capacities as a researcher, entrepreneur as well as an administrator. I always enjoy discussing linguistics and all things beyond with you, and I appreciate your interest in Norway and Norwegian.

president.DEF has washed REFL  
'The president has washed himself.'

Lødrup (1999, 2007) argues against this view, and suggests that the simple reflexive is a thematic argument in sentences such as (5). He says that the simple reflexive can be locally bound when it is the object of a verb that denotes an action directed towards the body of the binder, or the object of a locational preposition. These contexts were called physical contexts (see also Bresnan et al. 2016:279-82).

Lødrup (1999, 2010) shows that these physical contexts also allow a definite body part noun without a possessive pronoun. The possessor of the body part is then the subject, and the body part noun is assumed to be bound in the same way as a reflexive. An example is (6).

(6) *Presidenten har vasket ansiktet.*  
president.DEF has washed face.DEF  
'The president has washed his face.'

The definite form on the object *ansiktet* 'face.DEF' is independent of the regular conditions on definiteness, such as being previously known or mentioned. Example (6) can be the first sentence of a text when the reader can be assumed to know who the subject is.

Outside physical contexts, the complex reflexive is required - and a body part noun needs a possessive pronoun (or a definite form that satisfies the regular conditions on definiteness).

(7) *Presidenten elsker seg \*(selv).*  
president.DEF loves REFL (SELF)  
'The president loves himself.'

(8) *Presidenten elsker ansiktet \*(sitt).*  
president.DEF loves face.DEF (REFL.POSS)  
'The president loves his face.'

This parallel behavior of simple reflexives and definite body part nouns without possessive pronouns extends even further. It also shows up with reflexives and body part nouns required by lexical rules, as will be discussed here. (There is a short mention of this in Lødrup 1999.)

The verbs that allow deagentivization with a simple reflexive or a definite body part noun can be divided into two groups, which will be named the 'hurt' verbs and the 'operate' verbs after the verbs used in examples (1)-(4). The 'hurt' verbs are discussed in section 9.2: their argument structure, and the nature of their subject and object. The 'operate' verbs are discussed in section 9.3, and section 9.4 gives a conclusion.

## 9.2 Verbs in the *skade* 'hurt' group

### 9.2.1 Argument structure

A sentence such as (1) or (2) above denotes an event in which the body of the subject gets hurt in some way. Typical real world situations for (1)-(2) would be that the subject had a fall, or was in a fight. Example (9) covers both options.

(9) *Skader seg i slagsmål og fall.*<sup>2</sup>

<sup>2</sup> <https://nhi.no/psykisk-helse/rus-og-avhengighet/mer-skadelig-fyll/> June 10, 2020

hurt REFL in fights and falls  
'(People who drink) get hurt fighting and falling.'

This injury happens independently of the intentions and actions of the subject. However, if the real world situation involves a prominent and obvious agent, this kind of deagentivization is less natural. For example, (10) would be a strange thing to say if the speaker had been beaten up by a robber. It would be more natural if the speaker had been pushed over and trampled on by people running away.

(10) Jeg skadet meg i et ran [sentence suggested by a reviewer]  
I hurt REFL in a robbery  
'I hurt myself in a robbery'

There are not very many verbs that can be used as in (1)-(2), with either a reflexive or a body part noun. Examples of this group are *ødelegge* 'injure', *slå* 'hit' and *brenne* 'burn', cf. (11)-(12).

(11) Han har ødelagt seg / ryggen.  
he has injured REFL / back.DEF  
'He has injured himself / his back.'  
(12) Han har brent seg / fingerne.  
he has burnt REFL / fingers.DEF  
'He has burnt himself / his fingers.'

There are some verbs, however, that can take a definite body part noun, but not a reflexive, such as *brekke* 'break', *knuse* 'crush' (example 13), and some that can take the reflexive object, but not a definite body part noun, such as *skjære* 'cut', *stikke* 'prick', *rispe* 'slash' (example 14).

(13) Han har brukket armen / \*seg.  
he has broken arm.DEF / REFL  
'He has broken his arm / himself.'  
(14) Han har skåret seg / \*fingeren.  
he has cut REFL / finger.DEF  
'He has cut himself / his finger.'

There are also verbs that only have a use with a reflexive or body part noun object, and no agentive use, e.g. *forstue* 'sprain', *forfryse* 'freeze', *overanstrenge* 'overexert', see (15)-(16). These verbs are interesting, but they will be put aside here.

(15) Han har forfrosset seg / fingrene.  
he has freezed REFL / fingers.DEF  
'He is frostbitten / His fingers are frostbitten.'  
(16) \*Vi forfrøs ham / fingerene hans  
we froze him / fingers.DEF his

In the regular agentive use of the 'hurt' verbs, the nature of the external cause that controls the event is not specified by the verb. They differ from many transitive verbs (e.g. *write*) in that there is no requirement that the subject is human or intentional. For example, instruments and natural forces are possible subjects, as in (17).

- (17) John / ugressmiddelet / stormen ødela blomsterbedet.  
 John / weed.killer.DEF / storm.DEF ruined flower.bed.DEF  
 'John / the weed killer / the storm ruined the flower bed.'

This property is shared with verbs that can leave their external argument out in the causative alternation (Levin and Rappaport Hovav 1995:102-110). An example is *smelte* 'melt', as in (18)-(19).

- (18) Snømannen smeltet.  
 snow.man.DEF melted  
 'The snow man melted.'
- (19) John / kjemikaliene / sola smeltet snømannen.  
 John / chemicals.DEF / sun.DEF melted snow.man.DEF  
 'John / the chemicals / the sun melted the snow man.'

Causative alternating verbs are also similar to the 'hurt' verbs in another respect: When the agent is not given a linguistic realization, it is deleted from the argument structure. There is no trace of it, neither syntactically nor semantically. A difference from the causative alternating verbs is that the theme argument cannot be realized as a subject with the 'hurt' verbs.

### 9.2.2. The status of the subject

The subject of deagentivized 'hurt' verbs needs some discussion. There are many different assumptions about the number and nature of thematic roles. One proposed role that seems to suit the subject argument well is "affected" - in one of the ways this term is used. Lee-Schoenfeld and Diewald (2014) use the term of an argument

'taking part in the situation as an empathetic, necessarily animate co-participant', i.e. sharing some features of a typical agent, without, however, being an agent because not having control (Lee-Schoenfeld and Diewald 2014: 288)

The subject of a deagentivized 'hurt' verb is "necessarily animate"; it could not denote a dead body. If it is a doll, as in (20), it is interpreted as anthropomorphized.

- (20) Barbie har skadet seg.  
 Barbie has hurt REFL  
 'Barbie has hurt herself.'

The question is then where the affected argument with the 'hurt' verbs "comes from". It is interesting that an affected argument appears in sentences with body part nouns in a different construction, the dative external possessor construction. An example is the French (21), from Vergnaud and Zubizarreta (1992:597).

- (21) Le médecin leur a examiné la gorge.  
 the doctor them.DAT has examined the throat  
 'The doctor examined their throats.'

This construction can be found in several European languages (Haspelmath 1999). The affected argument is typically realized as a dative, which has the syntactic function of indirect

object (i.e. LFG's OBJ<sub>θ</sub>). It is the external possessor of the body part noun. The body part noun is a direct object in example (21), but it can also have other functions.

Norwegian does not have a dative. The affected argument is usually realized as a PP with the preposition *på* 'on', as in (22). Lødrup (2018) assumes that this PP is also an indirect object in a construction which is partly parallel to the type (21).<sup>3</sup> An example is (22).

- (22) Legen undersøkte halsen på dem.  
 doctor.DEF examined throat.DEF on them  
 'The doctor examined their throats.'

The external possessor construction requires a lexical rule that can add an affected possessor argument to the argument structure of a verb when one of the verb's arguments is a body part noun (Lødrup 2018). The affected subject of a deagentivized 'hurt' verb could also be seen as an external possessor. A difference from the construction in (21) and (22) is that the object of a deagentivized 'hurt' verb can not only be a body part noun, but also a simple reflexive. This extension is natural given the idea in Lødrup (1999, 2010) that the simple reflexive can be seen as a kind of body part noun denoting the body as a whole (see section 2.3).

The rule that adds an affected argument applies to a large number of verbs with different valencies. Applied to an agentive 'hurt' verb, it supplies the argument realized as a PP in (23).

- (23) Arbeidet har skadet ryggen på ham.  
 work.DEF has hurt back.DEF on him  
 'The work has hurt his back.'

A deagentivized 'hurt' verb has no agent at any level of representation, as discussed in section 2.1. The affected argument is then its most prominent argument, and it is natural that it is realized as subject.

### 9.2.3. The status of the object

The object of deagentivized 'hurt' verbs raises some questions. When the object is not a reflexive, it must usually be a body part noun. However, the group of body part nouns can be extended to some extent - as is often the case when languages have grammatical processes that single out body part nouns for special treatment (see e.g. Dixon 2010:277-86).<sup>4</sup> An example is (24).

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<sup>3</sup> For simplicity, I disregard the fact that the PP is often a part of the same noun phrase as the body part noun, as a result of reanalysis - see Lødrup (2018). This fact raises no problems for our concerns here, given the analysis in Lødrup (2018).

<sup>4</sup> It is striking that nouns denoting spatial relations, such as e.g. *innsiden* 'inside', cannot be objects of deagentivized 'hurt' verbs.

(i) \*Hånden /Vesken skadet innsiden.

hand.DEF/ bag.DEF hurt inside.DEF

'The inside of the hand/bag was damaged.' [intended]

Nouns denoting spatial relations behave the same way as body part nouns in several respects, and they are usually considered inalienable nouns (see e.g. Chappell and McGregor 1996, Heine 1997:1.2.1). The reason example (i) is not possible must be that the subjects are not animate, and thus cannot realize the affected role.

- (24) Tryna i 80 km/t og ødela buksa.<sup>5</sup>  
 fell.flat in 80 kilometers.per.hour and ruined pants.DEF  
 '(I) fell flat in 80 kilometers per hour and my pants were ruined.'

The body part noun is usually without a possessive pronoun. A possessive pronoun is not impossible, but it can give a feeling of redundancy. An example is (25).

- (25) Jeg skadet benet mitt for over to måneder siden.<sup>6</sup>  
 I hurt leg.DEF my for over two months ago  
 'I hurt my leg more than two months ago.'

The body part noun is always in the definite form if it denotes a body part that we have one of (such as the head). If it denotes something that we have more than one of, it can have the definite or the indefinite form, cf. (26).

- (26) Han har skadet foten / en fot.  
 he has hurt foot.DEF / a foot  
 'He has hurt his foot / a foot.'

However, the object cannot be anybody's body part with the deagentivized verb. Even with an indefinite body part noun, example (26) can only mean that one of "his" feet were hurt (or the verb has the agentive meaning, and the sentence means that "he" hurt somebody else's foot).

We see, then, that body part nouns follow the general pattern discussed in section 9.1. A 'hurt' verb gives a typical physical context: the action denoted by the verb is on the binder's physical body. Its object can be a definite body part noun that does not satisfy the regular conditions for definiteness.

The status of the reflexive also needs some discussion. Several languages have lexical rules that modify the thematic structure of a verb in the presence of a reflexive. This reflexive must be simple in languages that have an opposition between simple and complex reflexives. Examples include the reflexive with anti-causatives, as in (27).

- (27) Han åpner døren. - Døren åpner seg.  
 he opens door.DEF - door.DEF opens REFL  
 'He opens the door. - The door opens.'

In cases such as (27), it seems to be uncontroversial that the reflexive is empty and does not fill an argument position. The reflexive with deagentivized 'hurt' verbs seems to be different. It alternates with a body part noun, which must be seen as a thematic argument realizing the theme role. This theme role is simply "kept" from the basic agentive verb, with similar syntactic behavior. (It cannot be realized as a passive subject, however, see note 8.)

Important evidence is given by possessor raising. This term is used here not of the dative external possessor construction that is shown in example (21) above, but of the construction in which the object of a transitive verb (or occasionally the subject of an unaccusative verb) is also the possessor of a body part noun in a PP. An example is (28).

<sup>5</sup> <https://imgund.com/pederbruem> June 10, 2020.

<sup>6</sup> <https://www.ung.no/oss/arbeid/53512.html> June 10, 2020.

- (28) Jeg vasket ham i ansiktet.  
 I washed him in face.DEF  
 'I washed him in the face.'

The traditional term raising gives no implications for the analysis. The analysis assumed here is not movement from possessor position to object position, or the equivalent structure sharing of the object and the possessor, but a binding analysis, in which the object binds an element in the body part noun phrase (as in Guéron 1985, Deal 2017).

An interesting fact is that 'hurt' verbs take possessor raising, both when they are agentive, as in example (29), and when they are deagentivized, as in (30). It is even possible to combine the possessor raising construction and the resultative construction, as in (31).

- (29) Hun slo ham i hodet.  
 she hit him in head.DEF  
 'She hit him in the head.'
- (30) Han slo seg i hodet.  
 he hit REFL in head.DEF  
 'He got a blow to the head.'
- (31) Han slo seg gul og blå over hele kroppen.  
 he hit REFL yellow and blue over whole body.DEF  
 'Blows made him black and blue all over his body.'

The evidence from possessor raising is important to establish that the reflexive object is thematic. In the literature on possessor raising, a standard assumption is that a raised object is a thematic argument, and this has been an important premise for the theoretical discussion of possessor raising (see e.g. Baker 1988:268-277, Keach and Rochemont 1992, Deal 2017).<sup>7</sup>

Possessor raising is also relevant in another respect. Levin (1993) mentions that some English verbs allow deagentivizing with a reflexive or a body part noun phrase, and suggests in passing that the verbs that do not allow a reflexive are those that do not allow possessor raising (Levin 1993:242). This seems to be correct for Norwegian as well. Verbs that take a body part noun, but not a reflexive, such as *brekke* 'break' in (32), do not take possessor raising. This is true both when it is agentive, as in example (33), and when it is deagentivized, as in (34). This only gives meaning if the simple reflexive can be thematic.

- (32) Han har brukket armen / \*seg.  
 he has broken arm.DEF / REFL  
 'He has broken his arm / himself.'
- (33) \*Jeg brakk ham i armen.  
 I broke him in arm.DEF
- (34) \*Han brakk seg i armen.  
 he broke REFL in arm.DEF

When the reflexive is established to be thematic, it is significant that it is the simple *seg* (as opposed to the complex *seg selv*). The verbs discussed give typical physical contexts: the

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<sup>7</sup> For example, the thematicity of the object has represented a problem for the understanding of possessor raising as raising from the body part noun phrase to the clausal object position in the transformational literature, because traditional transformational grammar did not allow movement to a thematic position (Keach and Rochemont 1992, Deal 2017).

action is on the binder's physical body. When we compare this reflexive to other simple reflexive objects in Norwegian, its only special property is that its presence is required by the lexical process for deagentivizing 'hurt' verbs.

We see, then, that this rather minor lexical process reflects the parallel behavior of argumental simple reflexives and definite body part nouns without possessive pronouns: Both can be locally bound in a physical context.<sup>8</sup>

One might think of body part nouns as a kind of reflexives. However, the intuition in Lødrup (1999, 2010) is rather to think of simple reflexives as a kind of body part nouns, denoting the body as a whole. Evidence for this way of thinking is given by sentences such as (35), in which a simple reflexive is used as a body part noun in the possessor raising construction.

- (35) Han slo seg over hele seg.  
 he hurt REFL over whole REFL  
 'He hurt himself all over his body.'

If simple reflexives are a kind of body part nouns, one could consider an alternative analysis of sentences like (1)-(2), in which the non-agentive subject of a 'hurt' verb is raised from the object (Guéron 1985:79, note 13), or the positions are structure shared. This option will not be discussed further here, see relevant discussion in Lødrup (2010:104-106), and more generally Deal (2017).

To sum up for the deagentivized 'hurt' verbs: Their agent argument is deleted by a lexical rule. Their new subject argument is the affected role, which is inserted by the same rule that inserts the role for the external possessor in the dative external possessor construction. The 'hurt' verbs define a physical context - the action is on the binder's physical body. The physical context licenses definite body part nouns and simple reflexives. The objects of deagentivized 'hurt' verbs are thematic, not only the body part nouns, but also the reflexives. An argument for this position is that deagentivized 'hurt' verbs allow possessor raising, which is known to involve a thematic object position.

### 9.3 Verbs in the *operere* 'operate' group

The second group of verbs that can be deagentivized with a reflexive or body part noun object is the *operere* 'operate' group. Examples (3)-(4) are repeated as (36)-(37).

- (36) Presidenten har operert seg.  
 president.DEF has operated REFL  
 'The president has undergone surgery.'  
 (37) Presidenten har operert ryggen.  
 president.DEF has operated back.DEF  
 'The president has undergone back surgery.'

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<sup>8</sup> Sentences such as (1)-(4) do not have passive equivalents. This is more generally the case with active sentences in which the object is a reflexive or a body part noun that is bound by the subject. Example (i) is only possible with the regular use of the definite form.

(i) Ryggen ble skadet.  
 back.DEF became hurt  
 'The back was hurt.'



This group of verbs includes *tatovere* 'tattoo', *klippe* 'cut [hair]', and *sminke* 'put make-up on'. A sentence with a deagentivized 'operate' verb denotes an event in which the body of the subject is modified in some way, from surgery to tattooing to hairdressing. This modification is usually initiated by the subject. The modifying action is carried out by a human agent that is not linguistically realized.<sup>9</sup>

As with the 'hurt' verbs, there are some verbs that allow a body part noun, but not a reflexive. This group includes some verbs that are used of surgery, such as *amputere* 'amputate', *fjerne* 'remove', and *forstørre* 'enlarge'.<sup>10</sup> An example is (38).

- (38) Han har forstørret nesen / \*seg.  
 he has enlarged nose.DEF / REFL  
 'He has enlarged his nose / himself.'

There are also verbs that can take a reflexive object, but not a body part noun, such as *vaksinere* 'vaccinate' and *sterilisere* 'sterilize' (and maybe *undersøke* 'examine' and *teste* 'test' - these reflexive verbs are used of undergoing medical examinations). An example is (39).

- (39) Han har vaksinert seg / \*halsen mot influensa.  
 he has vaccinated REFL / throat.DEF against flu  
 'He has been vaccinated against the flu.'

As with the 'hurt' verbs, the subject of a deagentivized 'operate' verb has the affected role. This role must have the same source with both verb groups (see section 2.2): the more

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<sup>9</sup> This case of deagentivization should be kept apart from other cases. Babby (1993) says that the subject of an agentive verb in Russian can be non-agentive if "the verb can be construed as denoting a service that one person normally performs for another .." (Babby 1993:344). For Norwegian, this seems to be possible in some cases

- (i) Jeg måtte sy fem sting hos legen.  
 I must sew five stitches at doctor.DEF  
 'I had to have five stitches at the doctor's.'

However, the option is not general - it is impossible to say in Norwegian that one babysat, or baked a cake or wrote a song, or walked a dog if one just paid somebody to do it. In some cases, the analysis is less clear. Example (ii) allows a non-agentive interpretation, but the object noun might be seen as an extension of body part nouns (compare example (24) above).

- (ii) Jeg har oppgradert datamaskinen.  
 I have upgraded computer.DEF  
 'I have had my computer upgraded.'

<sup>10</sup> In some cases, the predicate is more complex.

- (i) Han har blant annet fikset på nesen to ganger.  
 he has among other fixed on nose.DEF two times  
 'Among other things, he has had his nose fixed twice.'

<https://www.p5.no/kim-kardashian-fan-har-brukt-15-millioner-pa-operasjoner/artikkel/668591/> June 10, 2020

- (ii) Hun hadde gjort nesen mindre.  
 she had made nose.DEF smaller  
 'She had her nose made smaller.'

<https://www.bt.no/kultur/i/GrGzm/plastic-fantastic> June 10, 2020

general rule that also inserts the role for the external possessor in the dative external possessor construction.

An 'operate' verb such as *operere* 'operate' allows possessor raising both when it is agentive, as in example (40), and when it is deagentivized, as in (41).

- (40) Jeg skulle operere ham i nesen.<sup>11</sup>  
 I should operate him in nose.DEF  
 'I should perform surgery on his nose.'
- (41) Han har operert seg i nesen.  
 he has operated REFL in nose.DEF  
 'He has had surgery performed on his nose.'

Section 2.3 showed that the 'hurt' verbs that do not allow a reflexive, also do not allow possessor raising. This generalization extends to the 'operate' verbs as well. For example *forstørre* 'enlarge' can take a body part noun, but not a reflexive, as shown in (38) above. It cannot take possessor raising - this is true of both the agentive and the deagentivized verbs. Examples are (42)-(43).

- (42) \*Legen har forstørret ham i nesen.  
 doctor.DEF has enlarged him in nose.DEF
- (43) \*Han har forstørret seg i nesen.  
 he has enlarged REFL in nose.DEF

A difference from the 'hurt' verbs is that an agentive 'operate' verb must have a human subject. This subject acts intentionally, and carries out actions that are specified by the verb. A sentence with a deagentivized 'operate' verb typically denotes a situation in which the subject initiates the modification of his/her body, while the actual agent of the modification is not linguistically realized. These properties cannot be accounted for if deagentivized 'operate' verbs were treated the same way as 'hurt' verbs.

There is another more general construction that can come close to the 'operate' construction in meaning (pointed out in Geniušienė (1987:281-82) for Swedish and German). Sentences such as (44) are rather marginal in Norwegian, but they can be found in texts.

- (44) Harald Hårfagre lar håret klippe.<sup>12</sup>  
 Harald Fairhair lets hair.DEF cut  
 'Harald Fairhair has his hair cut.'

The construction in (44) contains the verb *la* 'let' and a second verb. The standard analysis is that it is a complex predicate construction (Taraldsen 1983, 1991 on Norwegian, Lundin 2003:131-34 on Swedish). The argument structures of the two verbs are combined as in (45). The agent of the second verb is unrealized, or it can be realized as a PP.

- (45) *la klippe* 'let cut' < agent < agent theme > >  
 SUBJ OBJ

<sup>11</sup> <https://tidsskriftet.no/2014/12/legelivet/i-samme-bat> June 10, 2020.

<sup>12</sup> <http://www.nordicimage.com/index.php?undercat=12> June 10, 2020

An interesting aspect of this construction is that the light verb is an "agent splitter", in the words of Lundin (2003:134-36). In her terms, the subject denotes the initiator of the event, while the doer is not expressed. The parallel to the deagentivized 'operate' verbs is striking. A difference is that the light verb construction is more general. There is no general affectedness effect with the subject, as can be seen in e.g. (46).

- (46) Vi lot fangene løslate. (Taraldsen 1983:201)  
 we let prisoners.DEF release  
 'We let the prisoners be released.'

To account for the initiator interpretation with 'operate' verbs, they could be treated as if they were embedded under a higher "initiating" predicate. The initiator of the event is the high agent in (47).

- (47) *INITIATE klippe* 'cut' < agent < ~~agent~~ affected theme > >  
 |-----| |  
 SUBJ OBJ

The lines connecting agent and affected indicate that these roles are identified and realized by the same argument (the subject). It is important that the initiator and the affected participant must be identified. If they were not, the account would allow a sentence such as (48) to mean that the subject made some unmentioned agent cut Ola's hair.

- (48) Jeg klippet Olas hår.  
 I cut Ola's hair  
 'I cut Ola's hair.'

To sum up for the deagentivized 'operate' verbs: Much of what was said about 'hurt' verbs is also true of 'operate' verbs. They define a physical context, which licenses definite body part nouns and simple reflexives as thematic objects. The 'operate' verbs that allow a reflexive also allow possessor raising. The important difference between 'operate' verbs and 'hurt' verbs is that the subject of a deagentivized 'operate' verb is not only affected, it also initiates the modification of the subject's body. This was accounted for by embedding 'operate' verbs under a higher 'initiating' predicate. The agent of this predicate is identified with the affected argument of the 'operate' verb.

## 9.4 Conclusion

Lødrup (1999, 2010) argued that simple reflexives and definite body part nouns share important properties. The constructions with deagentivized 'hurt' and 'operate' verbs gives evidence for this view. The simple reflexives and definite body part nouns are locally bound in a physical context, as predicted. However, the parallel between them goes further, as shown by the fact that deagentivization requires either a simple reflexive or a definite body part noun. With a body part object, the deagentivized 'hurt' and 'operate' constructions can be seen as external possessor constructions, with the affected subject as the possessor. This view could be extended to those with a reflexive object, when the simple reflexive is understood as a kind of body part noun denoting the body as a whole.

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