

**LOCAL BINDING WITHOUT  
COARGUMENTHOOD:  
NORWEGIAN NOUN PHRASES**

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## Abstract

Coargumenthood has been a central concept in binding theory both in Lexical Functional Grammar and other frameworks. Binding is then basically a relation between arguments of the same predicate (see for example Hellan 1988, Dalrymple 1993, Reinhart and Reuland 1993, Pollard and Sag 1994, Bresnan 2001, Safir 2004). Coargumenthood has also been claimed to be decisive to binding in noun phrases. This paper shows that this is not correct for Norwegian noun phrases, which turn out to provide new arguments against the coargument theory. Based mainly upon examples from texts, it is shown that a possessive can bind a reflexive without the requirement that the possessive or the reflexive is (part of) an argument of the noun. It is also shown that the distribution of simple and complex reflexives in noun phrases is different from what has been claimed, and that their distribution is incompatible with their traditional analysis in Hellan 1988.

## 0 Introduction<sup>1</sup>

Coargumenthood has been a central concept in several versions of binding theory, where binding is basically a relation between arguments of a predicate (called 'strict coarguments' in Hellan 1988:69). Reflexives that are not bound by a coargument are then considered either long distance or exempt (or 'logophoric') reflexives. (See for example Hellan 1988, Dalrymple 1993, Reinhart and Reuland 1993, Pollard and Sag 1994, Bresnan 2001, Safir 2004.)

A typical representative of the coargument view is Hellan 1988, whose view of the distribution of reflexives in Norwegian can be summarized as follows: The complex reflexive *seg selv* is used in local binding, understood as binding by a coargument, while the simple reflexive *seg* is used in non-local binding. In this theory, it is necessary to assume that sentences like (1)

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with a reflexive in an adjunct have long-distance reflexives, required because Norwegian personal pronouns are anti-subject oriented (Hestvik 1992).<sup>2</sup>

- (1) **Per** så en slange bak \*ham / **seg**.  
*Per saw a snake behind him/ REFL*  
Per saw a snake behind him.

However, reflexives in adjuncts behave just like reflexives in complements (Lødrup 2007b), for example, they can be complex, as in (2). This makes it impossible to maintain the long distance analysis of reflexives in adjuncts.

- (2) **Mobberne** må stanses (...) av hensyn til **seg selv**.  
*harassers-DEF must stop-PASS out-of concern for REFL SELF*  
The harassers must be stopped out of concern for themselves.

Lødrup 2007b presents an alternative view of the distribution of reflexives in Norwegian, which can be summarized as follows: The local binding domain is the minimal clause. Both simple and complex reflexives can be locally bound. Only simple reflexives can be long distance bound (but this concept now has a more narrow definition). The choice between simple and complex reflexives in local binding is semantically determined; the simple reflexive is used when the physical aspect of the referent of the binder is in focus, while the complex reflexive is an elsewhere form.

The 'size' of the local domain must be considered a parameter of variation in binding theory. Norwegian is not unique in requiring that the local binding domain be the clause; another case is Polish (Przepiórkowski 1999:327-342). And even if English usually does not include adjuncts in the local binding domain, this is only a main rule, with problems and exceptions (see for example Büring 2005:57, 231).<sup>3</sup>

Coargumenthood has also been claimed to be decisive to binding in noun phrases in, for example, Norwegian (Hellan 1988) and German (Zifonun 2003). This article will show that this theory is not correct for Norwegian noun phrases. Based upon examples from texts and native speakers' intuitions, I will show that a possessive can bind a reflexive without the requirement that the possessive or the reflexive is (part of) an argument of the noun. The relevant local binding domain must therefore be the whole noun phrase, and coargumenthood is not relevant.

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<sup>2</sup> In all example sentences, boldfacing is used for traditional coindexing.

<sup>3</sup> Norwegian has a somewhat marginal option of excluding adjuncts from the local domain; a bound pronoun in an adjunct can sometimes be found, especially when the adjunct is peripheral to the main proposition. An example is (26) below.

This article will also show that the distribution of simple and complex reflexives in noun phrases is different from what has been claimed in the literature, and that their actual distribution is incompatible with their traditional analysis<sup>4</sup> (as in Hellan 1988).

### 1 The coargument analysis of reflexives in noun phrases

It has sometimes been remarked that binding in noun phrases is a difficult topic, which we know too little about, for example in Zifonun 2003:285. She summarizes what she calls the minimal consensus concerning binding in German noun phrases, saying that a reflexive can be bound by a genitive when the genitive is a kind of subject argument, and the reflexive is inside an argument / complement. The reflexive cannot be inside a modifier / adjunct. She even says that this generalization about coargument binding is valid without limitations (Zifonun 2003:288).

Zifonun's generalizations are very similar to those given for Norwegian in Hellan 1988. Hellan 1988:154 contrasts the sentences (3)-(4) with (5)-(6).

- (3) **Jons** bok om **seg selv** solgte godt.  
*Jon's book about REFL SELF sold well*  
Jon's book about himself sold well.
- (4) Her ser vi **kongens** gave til **sitt** folk.  
*here see we king-DEF's gift to REFL's people*  
Here we see the king's gift to his people.
- (5) \***Jons** venner fra **sin** studietid skrev en vakker nekrolog over ham.  
*Jon's friends from REFL's study-time wrote a nice obituary on him*  
Jon's friends from his student days wrote a nice obituary on him.
- (6) \***Jons** egne bøker i ryggsekken **sin** ble for tunge for ham.  
*Jon's own books in backpack-DEF REFL's got too heavy for him*  
Jon's own books in his backpack got too heavy for him.

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<sup>4</sup> This article does not cover all aspects of binding in noun phrases. Implicit argument binders, as in (i), from Hellan (1988:190), raise many questions that are not discussed. The same is true of binders in PPs, as in (ii), from Hellan (1988:154).

- (i) Jon gjorde [kveldens **IMPL-ARG** inngrep på **seg selv**].  
*Jon made evening-DEF's operation on REFL SELF*  
Jon made the evening's operation on himself.
- (ii) en gave fra **Jon** til **sin** mor  
*a gift from Jon to REFL's mother*  
a gift from Jon to his mother

Hellan 1988:154 claims that (3)-(4) are only possible if the genitives are interpreted as author and donator, respectively. His generalization is given in (7) (where 'host' means the noun phrase containing the anaphor).

(7) "In NP-internal binding (i.e. when the binder is in an argument position relative to a noun) of a *seg*-reflexive, a host of the reflexive and the binder must be semantic co-arguments." Hellan 1988:154

The term '*seg*-reflexive' includes reflexives with *seg* and the possessive reflexive *sin* (*sitt*, *sine*). Semantic coarguments are "NPs which are either theta-role related to the same noun, or relation-bound to the same noun" (Hellan 1988:154). (The relation-bound part covers nouns like *friend*, *picture*.)

Hellan's generalization puts constraints both on the binder and the reflexive. It will be shown that these constraints are too restrictive for both of them.

## 2 The Norwegian facts

### 2.1 Reflexives in adjuncts

A reflexive that is part of an uncontroversial adjunct represents a regular, productive, and acceptable option in Norwegian noun phrases. Examples are (8)-(11).

- (8) **Solskjær**s konklusjon på **sin** egen hjemmeside  
*Solskjær's conclusion on REFL's own home-page*  
Solskjær's conclusion on his own home page
- (9) **Gjelsten**s svar på vegne av **seg selv** og kona  
*Gjelsten's answer on behalf of REFL SELF and wife-DEF*  
Gjelsten's answer on behalf of himself and his wife
- (10) **hans** medaljer fra **sin** tid i Liverpool  
*his medals from REFL's time in Liverpool*  
his medals from his time in Liverpool
- (11) **hans** blandede følelser vedrørende **sin** tyske herkomst  
*his mixed feelings concerning REFL's German origin*  
his mixed feelings concerning his German origin

Hellan's coargument condition must be interpreted to exclude sentences in which the reflexive is a part of an embedded noun phrase with argument structure. This is normal, however, cf. (12)-(13).

- (12) **hennes** reaksjoner på [opptak av **seg selv**]  
*her reactions to shots of REFL SELF*  
her reactions to shots of herself

- (13) **Befolkningens** rett til [informasjon om **sitt** miljø]  
*people-DEF's right to information about REFL's environment*  
people's right to information about their environment

Note that the embedded noun phrases in (12)-(13) do not have implicit arguments that are coindexed with the possessive of the superordinate noun phrase. (The meaning of (13) cannot be that people have a right to inform themselves.) The possessive in the superordinate noun phrase is the only possible binder.

We see, then, that a reflexive that is bound by a possessive does not have to be in a coargument of the possessive. It can be in an adjunct, and it can also be in an embedded noun phrase with argument structure. This is expected under the assumptions made here, because it makes binding by a possessive in a noun phrase parallel to binding by a subject in a clause (see the introduction, and Lødrup 2007b).

In discussions of binding in clauses, the use of reflexives in adjuncts has been connected to the anti-subject orientation of Norwegian personal pronouns (Hestvik 1992). However, to my knowledge, nobody has proposed that personal pronouns can be 'anti-possessive-oriented'. This would be an impossible position within the coargumenthood theory, which predicts that a possessive can bind a non-coargument pronoun. (See also section 3, where personal pronouns bound by possessives are discussed).

### 2.1.1 Implicit arguments binding reflexives in adjuncts

Implicit binders raise many difficult questions that cannot be discussed here. Many speakers allow implicit arguments to be binders, even if they don't have a realized antecedent (Lødrup 2007a). The point to be made here is that they can also bind reflexives in adjuncts, as in the constructed examples (14)-(15) (where "IMPL-ARG" is the implicit argument binder).

- (14) [Litt **IMPL-ARG** skyting rundt **seg**] hjelper.  
*little shooting around REFL helps*  
A little shooting around one helps.
- (15) [Et **IMPL-ARG** stup i svømmebassenget **sitt**] er bra.  
*a dive in swimming-pool-DEF REFL's is good*  
A dive in one's swimming pool is good.

There is also some kind of implicit binder in a noun phrase like (16).<sup>5</sup> This binder differs from the implicit arguments in (14)-(15) by not being a part of the meaning of the head noun. It occurs in indefinite noun phrases with a propositional interpretation (Lødrup 2007a). Again, the reflexive can be in an adjunct.

- (16) [IMPL Et helt hus for **seg selv**] er et slit.  
*a whole house for REFL SELF is a toil*  
 A whole house for oneself is hard work.

## 2.2 Non-argument possessive binders

The requirement for coargumenthood in Hellan 1988 ((7) above) puts constraints both on the binder and the reflexive. Even if the constraint on the reflexive is wrong, it might be correct that the possessive must be an argument to bind a reflexive. This is the position of the Norwegian reference grammar, Faarlund et al. 1997:1166-67, which has no restriction on the reflexive, but states informally that a possessive must be understood as a "subject" to bind a reflexive. (Anward 1974:22 makes the same claim for Swedish.)

The question is then if a possessive can bind a reflexive when it does not realize a semantic argument of the noun. It was mentioned that the literature gives unacceptable sentences intended to show that this is not possible (discussed below). However, sentences in which a non-argument possessive binds a reflexive represent a regular, productive, and acceptable option in Norwegian, cf. (17)-(20).

- (17) **deres** tid til **seg selv**  
*their time to REFL SELF*  
 their time for themselves
- (18) **hennes** første jul borte fra **sitt** hjemland  
*her first Christmas away from REFL's home-country*  
 her first Christmas away from her home country
- (19) **Braathens** tall for **sin** utenlandstrafikk  
*Braathens's figures for REFL's foreign-traffic*  
 Braathens's figures for their foreign traffic

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<sup>5</sup> Some younger speakers also allow a reflexive form with a generic interpretation to occur with no binder, cf. Lødrup (2007a). An example is (i).

- (i) En motorsag kan skade **seg selv** og andre.  
*a chain-saw can hurt REFL SELF and others*  
 A chain saw can hurt oneself and others.

For these speakers, (14)-(16) (or (16) only) might not involve a binder at all.

- (20) **LOOCs** regler for **sine** egne  
*LOOC's rules for REFL's own*  
LOOC's rules for their own people

We see, then, that a non-argument possessive can bind a reflexive. This fact is interesting in itself, and it has consequences for our understanding of the grammar of possessives. One striking fact is that they can be thematic or non-thematic, without a corresponding difference in form. The nature of possessives, their grammatical relation, thematic role, etc. has been discussed again and again in different frameworks (for example Barker and Dowty 1993, Barker 1995, Taylor 1996, Asudeh and Keller 2001, Chisarik and Payne 2003, Laczko 2007). The fact that Norwegian possessives can be binders independently of thematicity could be taken as an argument that all possessives have the same grammatical relation, which is often assumed in Lexical Functional Grammar (see for example Bresnan 2001:293-95).

### 2.3 Binding domains

The coargument theory predicts that an argument taking head is required for a noun phrase to count as a binding domain. The data given shows that this requirement cannot be maintained.

It is often assumed that a binding domain for a reflexive must contain something that can bind it (for example Huang 1983; this requirement is not in Hellan 1988). This possible binder is sometimes called a subject; in a noun phrase it will be the possessive. For Norwegian, a possible generalization could be that a noun phrase with a possessive is a separate binding domain, while a noun phrase without a possessive is not. In practice, however, there would be numerous exceptions from both parts of this rule, as will become clear in section 4.2.

## 3 Problems with the data

### 3.1 The unacceptable cases

Both Hellan 1988:154 and Faarlund et al. 1997:1167 give unacceptable sentences that are intended to show that a possessive cannot bind a reflexive when there is no coargumenthood. (The condition in Faarlund et al. 1997 is actually weaker, only requiring the possessive to be subjectlike.<sup>6</sup>) Hellan's examples are (5)-(6) above, repeated as (21)-(22).

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<sup>6</sup> The Swedish reference grammar, Teleman et al. 1999:333, gives an even weaker condition, saying that a noun phrase can be a binding domain "if the



- (21) \***Jons** venner fra **sin** studietid skrev en vakker nekrolog over ham.  
*Jon's friends from REFL's study-time wrote a nice obituary on him*  
 Jon's friends from his student days wrote a nice obituary on him.
- (22) \***Jons** egne bøker i ryggsekken **sin** ble for tunge for ham.  
*Jon's own books in backpack-DEF REFL's got too heavy for him*  
 Jon's own books in his backpack got too heavy for him.

The question is what makes these sentences unacceptable when (8)-(11) and (17)-(20) are acceptable. Note first that these sentences would not be perfect with the reflexives replaced by non-reflexive possessives. On the other hand, they would be acceptable if the possessives were deleted. Norwegian generally prefers less use of possessors than for example English (Lødrup 2008). For example, it would be unacceptable to use possessors with the nouns in the Norwegian translation of (23).

- (23) They had their hands in their pockets.

The unacceptability of (21)-(22) could maybe be related to the "peripherality" of the modifier containing the reflexive. Examples (21)-(22) and similar sentences given in the literature have in common that it does not seem to be clear if this modifier has a restrictive or non-restrictive interpretation. Example (21) could be compared to the constructed example (24), which is structurally similar to (21), except that the modifier can only get a restrictive interpretation. Example (24) is clearly acceptable with a reflexive.

- (24) Pers bekjenskaper fra fjellturene **sine / hans**  
*Per's acquaintances from mountain-hikes REFL's / his*  
 er mer interessante enn bekjenskapene fra kontoret.  
*are more interesting than acquaintances-DEF from office-DEF*  
 Per's acquaintances from his mountain hikes are more interesting than  
 his acquaintances from the office.

In example (25) on the other hand (which is also constructed), the reflexive is a part of a modifier that can only get a non-restrictive interpretation. The pronominal possessive is best in (25).

- (25) **presidentens** livvakt John fra **sin / hans** private styrke  
*president-DEF's body-guard John from REFL's / his private militia*  
 the president's body guard John from his private militia

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noun is a nomen actionis or another noun with a relational content" (my translation HL).

A possible generalization is that reflexives are less acceptable in non-restrictive modifiers. If this is correct, it must be a part of the tendency found in many languages that more 'peripheral' constituents can be reluctant to let binding go into them. For example, even if adjuncts in Norwegian sentences normally behave like parts of the local binding domain, this is sometimes not the case with adjuncts that are peripheral to the main proposition. An example with a personal pronoun is (26), which is acceptable to me and other linguists I have asked.

- (26) Ifølge **ham selv** var han ikke aktiv i opprøret.  
*according-to him SELF was he not active in rebellion-DEF*  
According to him, he was not active in the rebellion.

### 3.2 Optionality

It is not clear to what extent it is obligatory for a possessive to bind a reflexive. Informant testing in Aass 1979:404-6 indicates that many speakers accept personal pronouns bound by possessives.<sup>7</sup> Examples with pronouns can also be found in texts, cf. for example the pronominal possessives in (27)-(28).

- (27) **Dag Solstads** opplesning av **hans** siste roman  
*Dag Solstad's reading of his last novel*  
Dag Solstad's reading of his last novel  
(28)  **Clintons** versjon av **hans** turbulente år  
*Clinton's version of his turbulent years*  
Clinton's version of his turbulent years

Optional binding raises many difficult questions. In general, several properties can influence the choice between a reflexive and a personal pronoun. Thematic roles represent one well known case (Jackendoff 1972:ch. 4, Hellan 1988:ch 4). In addition, binding can be sensitive to properties like definiteness, animacy, topicality, point of view, etc. (see for example Kuno 1987, Lødrup 2007c). This is not easy to investigate in practice, however, because intuitions tend to be uncertain, and there is variation between informants.

It is not clear what properties are relevant for binding in noun phrases. Topicality and/or point of view might be relevant. The constructed examples (29) and (30) differ in these respects. Example (29) has a pronominal

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<sup>7</sup> It should be mentioned, however, that the test sentences were not optimal, possibly allowing for more than one analysis (the crucial PP could be taken as a separate constituent in the clause).

possessive as binder, and the point of view is with its referent. The personal pronoun seems to be less acceptable in (29) than in (30), in which a genitive noun phrase is the binder, and the point of view is not with its referent.

(29) Ludvig Karsten gikk lykkelig omkring.

*Ludvig Karsten walked happy around*

Ludvig Karsten walked around happy.

**Hans** bilde av **hans** / **sin** kone var endelig ferdig.

*his picture of his / REFL's wife was finally finished*

His picture of his wife was finally finished.

(30) Vakten gikk fortvilet omkring.

*guard-DEF walked desperate around*

The guard walked around desperate.

**Ludvig Karstens** bilde av **hans** / **sin** kone var stjålet.

*Ludvig Karsten's picture of his / REFL's wife was stolen*

Ludvig Karsten's picture of his wife was stolen.

#### 4 Simple and complex reflexives in noun phrases

Another important question concerning binding in noun phrases concerns the distribution of simple and complex reflexives. Hellan 1988 proposed that the complex reflexive is used in local binding, while the simple reflexive is used in non-local binding. Combined with the analysis of local binding as coargument binding, this theory generates two predictions concerning the distribution of simple and complex reflexives in noun phrases:

1) A reflexive in a noun phrase with argument structure should be simple if it is bound by the subject of the sentence (Hellan 1988:69). This follows from its not being a coargument with the subject, which makes it a long distance reflexive.

2) A possessive should not bind a simple reflexive in a noun phrase. This follows from the conception of the simple reflexive as a long distance reflexive, and the well known fact that only subjects can be long distance binders (Pica 1987).

Sections 4.1 and 4.2 will show that these predictions are not correct.

#### 4.1 Simple reflexives

Hellan 1988 does not discuss binding of simple reflexives in noun phrases. However, Faarlund et al. 1997:1166 say that a possessive cannot bind a

simple reflexive. They don't give any reason or explanation. (They cannot relate it to the simple reflexive's status as a long distance reflexive, because they don't share this view.)

However, simple reflexives bound by possessives represent a regular option in Norwegian. Examples are (31)-(33).

- (31) **hans** verden rundt **seg**  
*his world round REFL*  
his world around him
- (32) **hans** ville skyting rundt **seg** (constructed)  
*his wild shooting around REFL*  
his wild shooting around him
- (33) **hans** famling bak **seg** (constructed)  
*his feeling behind REFL*  
his feeling behind him

The choice between simple and complex reflexives bound by possessives follows the same rule as when they are locally bound by subjects. In the theory of Lødrup 2007b, the relevant generalization is the following: In a PP, the simple reflexive is used when the preposition is locational, while the complex reflexive is used when the preposition is non-locational.<sup>8</sup> When a preposition is used with a non-locational meaning, the complex reflexive is the only option, as in (34).

- (34) **Wittgenstein's** betraktninger omkring **seg selv**  
*Wittgenstein's reflections around REFL SELF*  
Wittgenstein's reflections on himself

Note that the reflexives in (31)-(33) cannot be long distance reflexives. One important argument for this is that they can be substituted by the complex reflexive, which is not used in clear cases of non-local binding (Faltz 1985:153-154, Lødrup 2007b, 2007c). An example is (35).

- (35) **hans** ville skyting rundt **seg selv** (constructed)  
*his wild shooting around REFL SELF*  
his wild shooting around himself

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<sup>8</sup> This generalization for PPs is part of a broader generalization (Lødrup 1999, 2007b): The simple reflexive is used when the physical aspect of the referent of the binder is in focus. It is an inalienable denoting the body of the referent of the binder, while the complex reflexive is an elsewhere form.

It is clear, then, that possessives can bind simple reflexives in local binding. This fact runs counter to the traditional view of the simple reflexive, but it is predicted by the theory in Lødrup 2007b.

#### 4.2 Non-coargument complex reflexives

The analysis in Hellan 1988 predicts that a reflexive in a noun phrase with argument structure should be simple if it is bound by the subject of the sentence (Hellan 1988:69). This follows from its not being a coargument with the subject, which makes it a long distance reflexive in his analysis. Hellan 1988:69 gives (36) as an example (his question marks).

- (36) ??Jon leste [noen omtaler av **seg selv**].  
*Jon read some reviews of REFL SELF*  
Jon read some reviews of himself.

However, searching the web shows that the complex reflexive is commonly used in similar sentences with *omtale* 'review' and other nominalizations. Before giving examples, it should be pointed out that sentences like (37), from Hellan (1988:177), are not relevant in this context.

- (37) Jon begikk [et **IMPL-ARG** overgrep mot **seg selv**].  
*Jon committed an offense against REFL SELF*  
Jon committed an offense against himself.

In (37), the only possible interpretation (which follows from the meaning of the verb) is that the noun phrase has an implicit argument that is coindexed with the subject. This implicit argument is a local binder within the noun phrase. (A parallel interpretation of (36) would be that the subject reads what he has written about himself. To the extent that this interpretation is possible, it is irrelevant in this context.<sup>9</sup>)

Sentences (38)-(42) have complex reflexives that are bound by the subject, not by implicit arguments. This makes them genuine counterexamples to

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<sup>9</sup> Also not relevant is a sentence like (i).

- (i) **Naboen** hørte et rop fra [leiligheten over **seg**].  
*neighbor-DEF heard a cry from apartment-DEF above REFL*  
The neighbor heard a cry from the apartment above him/her.

In (i), the noun does not have argument structure, and the local preposition takes a simple reflexive, regardless of whether the binder is a possessive or a subject. (This follows from the rule for simple and complex reflexives mentioned in section 4.1.)

Hellan's generalization.<sup>10</sup> They represent a regular, productive, and acceptable option in Norwegian.

- (38) **Hun** (..) støvsuger nettet etter artikler og [omtale av **seg selv**].  
*she vacuums net-DEF after articles and mentions of REFL SELF*  
She vacuums the net for articles and mentions of her.
- (39) **Arbeidsfolk** (..) støtter [angrep mot **seg selv**].  
*workers support attacks on REFL SELF*  
Workers support attacks on them.
- (40) **Sheriffen** tar (...) lett på [truslene mot **seg selv**].  
*sheriff-DEF takes easy on threats-DEF against REFL SELF*  
The sheriff does not care about the threats against him.
- (41) (**Han**) opplevde virkelig [overgrep mot **seg selv**].  
*he experienced really harassment against REFL SELF*  
He really experienced harassment against him.
- (42) **Han** fant [et bilde av **seg selv**] i avisen.  
*he found a picture of REFL SELF in paper-DEF*  
He found a picture of himself in the paper.

It would not be possible to save Hellan's analysis by saying that sentences like (38)-(42) have the simple reflexive plus an emphatic *selv* 'self'. The reason is that his analysis must treat binding in these sentences as long distance binding, and there can never be a *selv* part in clear cases of long distance reflexives, cf. section 4.1.

The subject can even bind a complex reflexive in a noun phrase with argument structure embedded in a noun phrase with argument structure, as in (43). This option also exists for possessives (as mentioned in section 2.1) and implicit argument binders, as in (44)-(45). This fact gives an additional argument against involving long distance binding here, because of the standard assumption that only subjects can be long distance binders.

- (43) å **PRO** kontrollere [bruken av [opplysninger om **seg selv**]]  
*to control use-DEF of information about REFL SELF*  
to control the use of information about oneself

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<sup>10</sup> Reflexives in picture noun phrases are sometimes claimed to be outside binding theory; they are exempt anaphors (or 'logophors') in for example Pollard and Sag 1994, Reinhart and Reuland 1993, and Hestvik and Philip 2001 (on Norwegian). It is not clear, however, that picture noun phrases should be singled out in an account of binding in Norwegian; they seem to behave like other relational nouns. There also seems to be no reason to assume that Norwegian has exempt anaphors (Lødrup 2007b).

- (44) [**hennes** reaksjoner på [opptak av **seg selv**]]  
*her reactions to shots of REFL SELF*  
 her reactions to shots of herself
- (45) Ellefsen har aldri gitt [**IMPL-ARG** samtykke til [eksponering av **seg sjølv**]].  
*Ellefsen has never given consent to exposure of REFL SELF*  
 Ellefsen has never given his consent to exposure of himself.

The simple reflexive can sometimes be found in similar sentences.<sup>11</sup> Examples are (46)-(47), which have simple reflexives in nominalizations with the same head nouns as (39)-(40).

- (46) **Man** blir (..) GAAAL av [alle angrepene mot **seg**].  
*one gets maaad from all attacks-DEF against REFL*  
 One gets mad from all the attacks against one.
- (47) **Delva** har anmeldt [alle truslene mot **seg**].  
*Delva has reported all threats-DEF against REFL*  
 Delva has reported all the threats against him.

It is difficult to find systematic differences between sentences with simple and complex reflexives (and personal pronouns, cf. footnote 11). There seem to be a variety of factors involved, including point of view, emphasis, expectedness, etc.

It must be concluded that the coargument theory of the complex reflexive cannot account for its use in noun phrases. It has been shown that both the simple and the complex reflexive can be used in noun phrases with argument structure when the binder is outside the noun phrase.

Even if the factors that condition this choice between simple and complex reflexives are not understood, its technical aspects can be described using insights from the literature. One important insight that must be kept is that complex reflexives are locally bound — given a proper definition of local binding (Faltz 1985:153-154, Lødrup 2007b, 2007c). It is then necessary to assume that a noun phrase is not necessarily a separate binding domain, even if its head has argument structure. Consider a sentence like (36) again, repeated as (48).

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<sup>11</sup> To some extent, a personal pronoun is also possible, violating the general anti-subject orientation of personal pronouns in Norwegian (see discussion in Hestvik 1992:583-85). An example is (i).

- (i) **Yasser Arafat** fnyser av [de israelske truslene mot **ham**].  
*Yasser Arafat snorts at the Israeli threats-DEF against him*  
 Yasser Arafat snorts at the Israeli threats against him.

- (48) **Jon** leste [noen omtaler av **seg selv** / **seg**].  
*Jon read some reviews of REFL SELF / REFL*  
 Jon read some reviews of himself.

When the simple reflexive is used, it must be assumed (as in Hellan's analysis) that the noun phrase is a separate binding domain, which means that this is a case of long distance binding.<sup>12</sup> However, when the complex reflexive is used, it must be assumed that the subject is a local binder, and the noun phrase is not a binding domain.

When noun phrases as binding domains were discussed in section 2.3, it was mentioned as a possible rule that a noun phrase with a possessive is a separate binding domain, while a noun phrase without a possessive is not. This rule would have many exceptions to both its parts. In a sentence like (48) with the simple reflexive, the noun phrase will be a binding domain even if there is no possessor. In a sentence like (49), with the complex reflexive, the noun phrase will not be a binding domain even if there is a possessor.

- (49) I går svarte **NN** på [MMs beskyldninger mot **seg selv**].  
*in yesterday replied NN to MM's accusations against REFL SELF*  
 Yesterday, NN replied to MM's accusations against him.

The assumption that noun phrases with argument structure are sometimes binding domains and sometimes not might seem ad hoc, but there is independent motivation.<sup>13</sup> Research on binding in English has shown that it is possible for a subject to bind a reflexive in a noun phrase, even if the noun

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<sup>12</sup> In the theory of simple and complex reflexives assumed here (cf. Lødrup 2007b), a simple reflexive can be locally bound, and it is predicted that a local preposition takes a simple reflexive. This means that it is not necessary to assume long distance binding in examples like (i) or (ii).

- (i) **Per** fortalte om [skytingen rundt **seg**]. (constructed)

*Per told about shooting-DEF around REFL*

Per told about the shooting around him.

- (ii) **Pers** fortelling om [skytingen rundt **seg**] (constructed)

*Per's story about shooting-DEF around REFL*

Per's story about the shooting around him

<sup>13</sup> Implicit arguments complicate the picture. They can make the noun phrase a separate binding domain (Lødrup 2007a), as in (i), but most often they do not.

- (i) Forståelsen for andre springer ut av [IMPL-AG forståelsen av **seg selv**].

*understanding-DEF for others springs out of understanding-DEF of REFL SELF*

The understanding for others comes from the understanding of oneself.



phrase has a possessive (at least with picture nouns, see Keller and Asudeh 2001, Asudeh and Keller 2001, Runner and Kaiser 2005, see also Rappaport 1986:106-7 on Russian). Cf. (50)-(51).

(50) Hanna found Peter's picture of her.

(51) Hanna found Peter's picture of herself.

Keller and Asudeh 2001:6 write about sentences like (50)-(51): "pronouns and anaphors are both highly acceptable; no significant acceptability difference could be detected"

In terms of binding theory, example (51) would correspond to the Norwegian version with the complex reflexive, in which the noun phrase is not a separate binding domain. Example (50) would correspond to the Norwegian version with the simple reflexive, in which the noun phrase is a separate binding domain. (The reason English can use a pronoun here is that English personal pronouns are not anti-subject oriented, differing from Norwegian.)

## 5 Conclusion

The coargument theory of binding cannot account for the distribution of reflexives in Norwegian noun phrases.

The facts about binding in noun phrases support an alternative theory in which both simple and complex reflexives can be locally bound, and the local domain for binding is the whole noun phrase (and the whole sentence).

A possessive can bind a reflexive without being an argument of the noun, and a reflexive in an adjunct can be locally bound.

A noun phrase without argument structure can be a binding domain, and a noun phrase with argument structure does not have to be one.

However, one still has to say, with Zifonun 2003:285 and others, that binding in noun phrases is a difficult topic, which we know too little about. This is true both of theory and data — for example optionality and the choice between reflexives and personal pronouns.

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