Chapter 3
Binding: Reflexives and Pronouns in Modern Danish

3.1 Introduction. Binding of reflexives and pronouns in Danish.

The purpose of this chapter is two-fold. First, the distribution of simple reflexives and pronouns, e.g. Dan. sig ‘REFL’ and ham ‘him’, will be described and an account of these elements will be proposed. Second, it will be argued that complex reflexives, e.g. Dan. sig selv ‘REFL self’, and complex pronouns, e.g. ham selv ‘him self/him himself’, are best accounted for by assuming that binding and intensification are two independent modules of the grammar.

Binding is taken to be a system of syntactic principles which determines the distribution of reflexives and pronouns. Rather than adopting a predicate based approach to binding (cf. Reinhart and Reuland (1993)), we propose a nominal approach in which binding facts follow from the interaction of lexical features of nominal expressions and syntactic domain constraints. In contrast, as discussed in chapter 2, the module of intensification consists of semantic and pragmatic constraints on the distribution of the adnominal intensifier selv ‘self’. That is, it will be argued that the behavior of complex reflexives and complex pronouns follow from the fact that they are adnominally intensified forms of their simple counterparts, e.g. sig ‘REFL’ and ham ‘him’, and that their specific properties can be derived compositionally from their constituent components, i.e. sig/ham ‘REFL/him’ and the adnominal intensifier selv ‘self’. The remainder of this section contains an introduction to binding of reflexives and pronouns in Danish.

\[\text{For similar proposals which also advocate the independence of intensification and binding and outline compositional analyses of complex reflexives and pronouns, see McKay (1991), Baker (1995) and König and Siemund (1999).}\]
Danish distinguishes between simple and complex reflexives, i.e. *sig* vs. *sig selv*, see (1).

(1)  
\[ \text{a. Peter vasker sig/sig selv.} \]  
\[ \text{Peter washes REFL/REFL self} \]  
\[ \text{ʼPeter washes (himself).} \]  
\[ \text{(neutral)} \]  

\[ \text{b. Peter hader *sig/sig selv.} \]  
\[ \text{Peter hates REFL/REFL self} \]  
\[ \text{ʼPeter hates himself.} \]  
\[ \text{(anti-reflexive)} \]  

\[ \text{c. Peter hviler sig/*sig selv.} \]  
\[ \text{Peter rests REFL/REFL self} \]  
\[ \text{ʼPeter is resting.} \]  
\[ \text{(inherently reflexive)} \]  

Predicates differ with respect to whether they allow both simple and complex reflexives (1a) or whether they allow either only complex (1b) or only simple reflexives (1c). The complex form *sig selv* ‘REFL self’ is used with anti-reflexive predicates, i.e. predicates whose meaning imply non-reflexive scenarios, see (1b). The simple reflexive *sig* ‘REFL’ is the default form used both with predicates whose meaning does not imply anti-reflexivity, e.g. the so-called “neutral” predicate *vaske* ‘wash’ in (1a), and with inherently reflexive predicates whose meaning does imply reflexivity, see (1c). The simple/complex distinction also interacts with the interpretation of the referent of the reflexive (e.g. in so-called doppelgänger-effect examples as well as with respect to the choice between sloppy and strict readings in VP ellipsis constructions) and prosodic factors, both of which will be discussed in greater length below.

In Danish the binding domain for reflexives is the tensed clause, indicated with square brackets in the following examples. Local reflexives of the types illustrated in (1) will be discussed in sections 3.2 and 3.3. The so-called long-distance reflexives, which in Danish are limited to the tensed clause, see (2a) vs. (2b), will be described in section 3.3.1 where we also discuss how intensifier-adjunction interacts with locality constraints.
Unlike English where certain logophoric or contrastive uses of what appear to be the reflexive *himself* can be bound by antecedents outside the tensed clause, see (3a), Danish reflexives have to be bound within this domain, (2a) vs. (2b). That is, in Danish, only pronominals, be they simple, e.g. *ham* ‘him’, or complex, *ham selv* ‘him himself’, may have antecedents outside the tensed clauses, see (3b) vs. (2b).

Unlike *himself* in English, Danish reflexives are subject-oriented, i.e. only allow binding by antecedents functioning as subjects, see (4) vs. (5).

(4)  
*Ida told Mary about herself.*

(5)  
*a. Ida told Marie about herself.*

It will be argued that subject-orientedness is a characteristic of ‘true’ reflexives and that all non-subject-oriented reflexives are really intensifiers or some kind of intensified nominal

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2 See chapter 5 for an analysis of locally free *himself* as adnominally intensified pronominals.

3 As discussed in section 3.3.6 the simple reflexive *sig* cannot be stressed. The preposition *om* ‘about’ as used in example (5) is prosodically too light to host the clitic *sig*. Hence, only the complex form of the reflexive, i.e. *sig selv* which can be stressed, is found in such examples. So, the ungrammaticality of (i) below is not due to any anti-locality of the simple reflexive *sig* (as is sometimes suggested, e.g. Vikner (1985)) but simply to phonological factors, see section 3.3.6 for more discussion of the interaction of stressability and adnominal intensification of reflexives.

(i)  
*Peter told Marie about himself.*
expressions. In fact, as will be shown in chapter 5, it is possible to claim that *herself* in the sentence in (4) is not a reflexive but rather a concealed intensified pronoun derived from the full form *her herself* by some sort of deletion rule.

Danish distinguishes between reflexives and pronouns even for possessives, e.g. *sin* ‘POSSREFL’ (6a) and *hans* ‘his’ (6b), whereas English only has one possessive, namely the possessive pronoun *his*.

(6) a. \(\textit{John}, \text{ sagde at Peter\textsubscript{s} bad Hans\textsubscript{em} vaske sin\textsubscript{\textit{i/k/m}}\textsubscript{z} bil}\).
   \(\text{John said that Peter asked Hans wash POSSREFL car}\)
   *‘John said that Peter asked Hans to wash his car.’*

   b. \(\textit{John}, \text{ sagde at Peter\textsubscript{s} bad Hans\textsubscript{em} vaske hans\textsubscript{\textit{i/k/m}}\textsubscript{z} bil}\).
   \(\text{John said that Peter asked Hans wash his car}\)
   *‘John said that Peter asked Hans to wash his car.’*

One of the greatest advantages of assuming binding and intensification to constitute independent modules of the grammar is that it becomes possible to unify the account of argument and possessive reflexives and pronominals in Danish. By considering intensifier-adjunction to reflexives and pronouns to be controlled by binding independent principles (i.e. the semantic/pragmatic principles controlling adnominal intensification) it becomes possible to defend a nominal approach to binding in which the distribution of reflexives and pronouns follow syntactic principles: the reflexives *sig* ‘REFL’ and *sin* ‘POSSREFL’ having to be bound by a subject (local or long-distance) inside the tensed clause (=principle A), and the pronominals *ham* ‘him’ and *hans* ‘his’ having to be free from binding from a subject inside the same domain. The complex forms *sig selv* ‘REFL self’/*sin egen* ‘POSSREFL own’ and *ham selv* ‘him self’/*hans egen* ‘his own’ are adnominally intensified versions of their simple counterparts. All instances of the adnominal intensifier *selv/egen* ‘self/own’ - even the ones occurring in the so-called complex reflexives and pronouns - are thus controlled by the binding-independent principles of the module of adnominal intensification. As already shown

\footnote{Cf. Jakubowicz 1994:206, (1).}
in chapter 2, these principles are susceptible to semantic and pragmatic factors as well as to the focus-structure of the surrounding linguistic context, i.e. the sentence or the larger discourse.

The rest of the chapter is organized as follows. In section 3.2 the foundation for an analysis of reflexives in Danish is outlined. Then, in section 3.3 this analysis will be used to account for the behavior of reflexives in a number of different contexts. Section 3.4 is dedicated to the treatment of complex and simple pronouns. Finally section 3.5 summarizes the results of the previous sections and concludes the chapter.

3.2 Basic properties of Danish reflexives

Before we start discussing how predicate meaning and focus affect the distribution of the adnominal intensifier in complex reflexives and the independence of binding and intensification in general, we first need to describe the formal characteristics of reflexives and lay out the relevant assumptions concerning their syntactic and semantic properties. Section 3.2.1 contains a description of the morphology of reflexives in Danish. Section 3.2.2 and 3.2.3 deals with their semantic and syntactic properties respectively and in section 3.2.4 an analysis of reflexives in Danish based on a modified version of principle A is proposed.

3.2.1 Morphological characteristics of reflexives in Danish

As illustrated in Tables 1-2 Danish has two series of reflexives and pronouns: simple forms (see Table 1) and complex forms (see Table 2). We assume the complex reflexives to be formed by adnominal intensification of the simple reflexives. That is, intensified reflexives are formed in exactly the same way as both intensified DPs (e.g. Kongen selv kom til mødet ‘The king himself attended the meeting’) and complex subject and object pronouns pronouns (e.g. Peter sagde at Marie dansede med all andre end ham selv ‘Peter said that Mary danced
with everyone but himself’), namely by intensifier-adjunction to the simple/unintensified forms. In tables 1-2 column 1 gives the meaning of the forms in columns 2-4. Columns 2-3 illustrate the simple and complex forms of subject and object pronouns and column 4 gives the corresponding simple and complex reflexive pronouns.

Note that only the third person forms maintain a formal distinction between object pronouns and reflexives, i.e. sig ‘REFL’ vs. ham ‘him’. For all first and third person forms there is no formal distinction between reflexives and object pronouns, e.g. mig ‘myself’ and mig ‘me’. Furthermore while the third person object pronouns, e.g. ham/hende ‘him/her’, etc., are marked for both case, number, and gender, the third person reflexive is invariably sig which is unmarked for all these features. In these respects the Danish pronominal system is very similar to the French and German systems.

Table 1. Unintensified pronouns and reflexives.

<table>
<thead>
<tr>
<th></th>
<th>Nominative</th>
<th>Acc./Dat.</th>
<th>Reflexive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st, sing.</td>
<td>Jeg</td>
<td>Mig</td>
<td>mig</td>
</tr>
<tr>
<td>2nd, sing - informal</td>
<td>Du</td>
<td>Dig</td>
<td>dig</td>
</tr>
<tr>
<td>2nd, sing - formal</td>
<td>De</td>
<td>Dem</td>
<td>Dem</td>
</tr>
<tr>
<td>3rd, sing - masculine</td>
<td>Han</td>
<td>Ham</td>
<td>sig</td>
</tr>
<tr>
<td>3rd, sing - feminine</td>
<td>Hun</td>
<td>hende</td>
<td>sig</td>
</tr>
<tr>
<td>3rd, sing - common gender</td>
<td>Den</td>
<td>Den</td>
<td>sig</td>
</tr>
<tr>
<td>3rd, sing - neuter</td>
<td>Det</td>
<td>Det</td>
<td>sig</td>
</tr>
<tr>
<td>1st, plur.</td>
<td>Vi</td>
<td>Os</td>
<td>os</td>
</tr>
<tr>
<td>2nd, plur - informal</td>
<td>I</td>
<td>Jer</td>
<td>jer</td>
</tr>
<tr>
<td>2nd, plur - formal</td>
<td>De</td>
<td>Dem</td>
<td>Dem</td>
</tr>
<tr>
<td>3rd, plur.</td>
<td>De</td>
<td>dem</td>
<td>sig</td>
</tr>
</tbody>
</table>
Table 2. Intensified pronouns and reflexives.

<table>
<thead>
<tr>
<th></th>
<th>Nominative</th>
<th>Acc./Dat.</th>
<th>Reflexive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st, sing.</td>
<td>jeg selv</td>
<td>Mig selv</td>
<td>mig selv</td>
</tr>
<tr>
<td>2nd, sing - informal</td>
<td>du selv</td>
<td>Dig selv</td>
<td>dig selv</td>
</tr>
<tr>
<td>2nd, sing - formal</td>
<td>De selv</td>
<td>Dem selv</td>
<td>Dem selv</td>
</tr>
<tr>
<td>3rd, sing. - masculine</td>
<td>han selv</td>
<td>ham selv</td>
<td>sig selv</td>
</tr>
<tr>
<td>3rd, sing. - feminine</td>
<td>hun selv</td>
<td>hende selv</td>
<td>sig selv</td>
</tr>
<tr>
<td>3rd, sing. - common gender</td>
<td>den selv</td>
<td>den selv</td>
<td>sig selv</td>
</tr>
<tr>
<td>3rd, sing. - neuter</td>
<td>?det selv</td>
<td>?det selv</td>
<td>sig selv</td>
</tr>
<tr>
<td>1st, plur.</td>
<td>vi selv</td>
<td>os selv</td>
<td>os selv</td>
</tr>
<tr>
<td>2nd, plur. - informal</td>
<td>I selv</td>
<td>Jer selv</td>
<td>jer selv</td>
</tr>
<tr>
<td>2nd, plur. - formal</td>
<td>De selv</td>
<td>Dem selv</td>
<td>Dem selv</td>
</tr>
<tr>
<td>3rd, plur.</td>
<td>de selv</td>
<td>dem selv</td>
<td>sig selv</td>
</tr>
</tbody>
</table>

Complex and simple reflexives differ in several ways, i.e. phonologically, syntactically, semantically and pragmatically. The proposal defended here is that these differences can be explained as consequences of adnominal intensification. But before we go into the detailed analysis we first need to spell-out the set of assumptions on which our analysis of binding is based.

3.2.2 Semantics of reflexives

Unlike pronouns, which are specified for person, number, and gender, Danish reflexives are only overtly specified for person\(^5\). Semantically the reflexive sig can be thus characterized as

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\(^5\) Since Danish, unlike Chinese and other languages, does not allow subject reflexives, the only potential case marking of reflexives would be an ACCUSATIVE vs. DATIVE/OBLIQUE distinction. However, as the examples in (i-ii) show, no such distinction is overtly marked on reflexives or pronouns in Danish:
an expression that has an incomplete set of phi-features. That is, we assume sig to function semantically as a variable that is dependent on its antecedent for lexical content and reference. In contrast, that pronouns (e.g. ham ‘him’, hende ‘her’, den ‘them’) have phi-features is obvious from the fact that they are overtly marked for features like person, number and gender and that they can be used deictically, i.e. have lexical content and reference on their own.

The assumption that the simple reflexive sig ‘REFL’ is a featureless variable is supported by the fact that it is the only element that can be bound by an impersonal DP. In certain sentences, a pronoun can be used in the same configurations in which sig can be long-distance bound, see (7). Yet only the reflexive sig ‘REFL’, but not the pronoun ham ‘him’, can occur if the matrix antecedent is an impersonal DP, such as arbitrary PRO or an indefinite expressions, e.g. man ‘one’ or enhver ‘everybody’, see (8)\(^6\)\(^7\).

(7) a. *Peter, lader folk tale om ham\(_{i/z}\)/sig\(_{i/z}\).*
   Peter let-PRES people talk-INF about him/REFL
   ‘Peter lets people talk about him.’

b. *Peter, bad mig om at invitere sig/ham\(_{i/z}\).*
   Peter ask-PAST me about to invite-INF REFL/him
   ‘Peter asked me to invite him.’

(i) a. *Peter vasker sig.*
   Peter washes REFL-ACC
   ‘Peter washes (himself).’

b. *Peter købte sig et hus.*
   Peter bought REFL-DAT a house-ACC
   ‘Peter bought himself a house.’

(ii) a. *Peter vasker ham.*
   Peter washes him-ACC
   ‘Peter washes himself.’

c. *Peter købte ham et hus.*
   Peter bought him-DAT a house-ACC
   ‘Peter bought him a house.’

Since it appears to be orthogonal to the issues discussed in this dissertation, case marking of reflexives and pronouns will not be discussed in great detail.

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\(^6\) This observation, as well as the examples in (7-8a,b), is adapted from Jakubowicz (1994:133).

\(^7\) A similar situation holds in French. In certain contexts, e.g. non-contrastive PPs, the distribution of the reflexive soi ‘RELF’ and the pronominal lui/elle ‘him/her’ overlap, see (i). However, when the antecedent is indefinite then only soi ‘RELF’ can be used, see (ii).

(i) *Pierre, est fier de soi/lui.*
   Peter is proud of REFL/him
   ‘Peter is proud of himself.’

(ii) *Personne n’est fier de soi/*lui.*
(8) a.  
PRO, at lade folk tale om sig/ham selv er kedeligt.
PRO to let people talk about REFL/him be-PRES boring
‘To let people talk about one/him, is boring.’

b.  
Man/Enhver, bad mig om at invitere sig/ham selv.
one/everybody ask-PAST me about to invite-INF REFL/him
‘One/Everybody asked me to invite him.’

The examples in (9) illustrate that intensifier-adjunction does not change the ability of the sig to be bound by an impersonal DP. This should come as no surprise since the intensifier selv ‘self’ is also a featureless, morphologically invariable particle.

(9) a.  
Enhver/man, skal forsvare sig, (selv) mod politiet.
everyone/one must defend REFL against police-the
‘Everyone/one must defend himself/oneself against the police.’

b.  
PRO, At præsentere sig, (selv) for studenterne er kedeligt.
PRO to introduce REFL for students-the is boring
‘To introduce oneself to the students is boring.’

According to proposals by Burzio (1989, 1991), only so-called ‘true reflexives’ can have impersonal antecedents. In this respect both sig and sig selv qualify as true reflexives. While sig lacks overt morphological marking of number, gender and case, it can still be said to be marked for person since it differs morphologically from 1st and 2nd person forms, see Table 1 in section 3.2.1. Burzio (1991), however, argues that the person agreement of sig with a definite DP acting as its antecedent is merely a case of “pseudo-agreement” and that, consequently, true reflexives lack even the person feature. Indeed, as observed by E. Benveniste, in many languages the third person, is the default category, best characterized negatively as the absence of first and second person features, rather than as the presence of a

nobody NEG is proud of REFL/him
‘Nobody is proud of himself.’

8 Cf. also Jakubowicz (1994:116(1a,b)).

(i) beta has no gender, no number, and no person, and,
(ii) alpha is third person.
Burzio further argues that “person markings have a higher relative weight than either gender or number markings since a featureless beta pseudo-agrees with and alpha of any number and any gender, but not with one which is 1st or 2nd person” (ibid.).
special third person feature. True reflexives can thus be defined as genderless, numberless, and personless, i.e. as lacking phi-features. We adopt Burzio’s proposal and assume that both simple \( \text{sig} \) and complex \( \text{sig selv} \) classify as true reflexives\(^{10} \) in this sense. In the rest of the dissertation the term ‘true reflexives’ will be used to refer to nominal expressions which are: (i) featureless (i.e. lack phi-features) and, consequently, bindable by impersonal indefinites, and (ii) subject-oriented (i.e. cannot be bound by non-subject antecedents).

As mentioned above, being itself an uninflected particle, the intensifier \( \text{selv} \) does not add any phi-features to the complex reflexive \( \text{sig selv} \). While \( \text{sig} \) and \( \text{sig selv} \) are semantically the same in so far as they are both featureless reflexives, they clearly differ semantically in other respects, i.e. with respect to contrastive focus, doppelgänger-effects, sloppy vs. strict readings in VP ellipsis constructions, etc. We argue that all these differences between simple \( \text{sig} \) and complex \( \text{sig selv} \) follow from semantic properties of the intensifier \( \text{selv} \) ‘self’. That is, simple \( \text{sig} \) and complex \( \text{sig selv} \) have the same properties with respect to the binding theory and whatever properties \( \text{sig selv} \) have in addition to simple \( \text{sig} \) derive from the adjunction of the intensifier \( \text{selv} \) ‘self’. As will be shown in the following section, even the different morphological and syntactic behavior of \( \text{sig} \) and \( \text{sig selv} \) follow from the intensifier-adjunction of \( \text{selv} \) to \( \text{sig} \) which transforms the phonological clitic into a full DP.

### 3.2.3 Syntactic structure of reflexives

Simple and complex reflexives display quite different syntactic behaviors. While the simple reflexives, e.g. \( \text{sig} \), display clitic-like behavior, the complex forms of the reflexives, e.g. \( \text{sig selv} \), qualify as full DP phrases. Kayne (1975) found that the French reflexive clitic \( \text{se} \) behaves differently from regular DPs with respect to a number of different syntactic processes. Applied to complex and simple reflexives in Danish, these tests show that \( \text{sig} \) behaves

\(^{10}\) In this respect Danish \( \text{sig/sig selv} \) behaves like French \( \text{se/soi/soi-même} \) and Dutch \( \text{zich/zich zelf} \).
similarly to French *se* in a number of respects while the syntactic behavior of the complex reflexive *sig selv* patterns with that of full lexical DPs. That is, the complex reflexive *sig selv* can be stressed, used as answer to a question, coordinated, clefted and topicalized. The simple reflexive *sig*, on the other hand, cannot undergo any of these processes, see (10a-e).

(10) | Property                      | * | OK | * |
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<tbody>
<tr>
<td>a. stress</td>
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<tr>
<td>b. answer to questions</td>
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<tr>
<td>c. coordination</td>
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<td>d. clefting</td>
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<tr>
<td>e. topicalization</td>
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</table>

The examples illustrating the properties listed in (10a-e) are given in section 3.3.6, and have therefore not been repeated here. Though Danish *sig* and French *se* are both phi-feature-less clitics they do, nevertheless, display different behaviors in other respects. For examples, while *se* has to attach to its host verb, *sig* does not. The example in (11) illustrates the fact that French *se* cannot be separated from the verb.

(11) *Pourquoi se rase-t-il?*

    [CP pourquoi [C’ se; rase; [TP il, tj, ….]]]

    why REFL shave-PRES he

    ‘Why does he shave (himself)?’

In the question in (11) the clitic *se* attaches to the verb and moves along with it when it is moved to C. While French *se* necessarily attaches to its host predicate, this is not the case for Danish *sig*, which can be separated from its verb by other material. Being a verb-second (V2) language, Danish requires the verb to raise to C in main clauses11. The examples in (12a,b) show that in such cases the clitic *sig* remains behind thereby becoming separated from the verb by the subject.

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11 The literature on Mainland Scandinavian languages contains a variety of proposals as to the analyze V2 sentences. Since this issue does not bear directly on the topic under discussion here, it will not be discussed in any detail. The bracketed sentences in (12) are slightly adapted versions of Holmberg and Platzack’s (1989, 1995) analysis of syntax of mainland Scandinavian V2 phenomena.
The examples in (13) and (14)\(^\text{12}\) illustrate another difference between se and sig. The clitic se cannot be omitted in the second of two coordinated verbs with or without auxiliary verb, see (13a,b)\(^\text{13}\). Only when the auxiliary verb is dropped too is this possible, see (13c). Danish sig shows no such constraints and can be freely omitted from all but the last of the coordinated verbs, see (14a,b)\(^\text{14}\).

(13) a. *Avant de sortir, Marie s’habille et *(se) peigne soigneusement.*
    before to go out, Marie REFL dresses and (REFL) comb meticulously
    ‘Before going out, Marie dresses and combs herself meticulously.’

b. *Marie s’est habillée et *(s’)est peignée soigneusement.*
    Marie REFL is dressed and (REFL) is combed meticulously
    ‘Marie dressed and combed herself meticulously.’

c. *Marie s’est habillée et (s’est) peignée soigneusement.*
    Marie REFL is dressed (REFL is) combed meticulously
    ‘Marie dressed and combed herself meticulously.’

(14) a. *Marie klæder (sig) og reder sig omhyggeligt.*
    Marie dresses (REFL) and combs REFL carefully
    ‘Marie dresses and combs herself carefully.’

b. *Peter barberede (sig), vaskede (sig) og tørrede sig.*
    Peter shaved washed and dried REFL
    ‘Peter shaved, washed and dried (himself).’

We take the differences between se and sig illustrated in (11-14) to mean that while the French reflexive clitic se forms a morphological constituent with its host sig does not. Sig is, however, a phonologically dependent form that is prosodically too light to stand on its own

\(^\text{12}\) The examples are based on similar examples in Jakubowicz (1994:209, ex. (12-3)).

\(^\text{13}\) The observation that se cannot be dropped in such coordinated constructions is from Kayne (1975).

\(^\text{14}\) Note, however, that such deletion of all but the last instance of sig is not possible with inherently reflexive verbs, see more detailed discussion such cases in chapter 4, section 4.2.8.
and therefore needs to attach to a host constituent (noun or verb or any other category) with which it then forms a phonological constituent.

In Danish, both simple pronouns, e.g. *ham ‘him’, and simple reflexive, e.g. *sig ‘REFL’, differ from full lexical DPs in that they can undergo object shift to a position outside the VP and attach to an appropriate phonologically heavy host, see (15a)\(^1\), where *sig and *ham precede the negation *ikke ‘not’. But unlike *sig, the simple pronoun *ham ‘him’ is stressable and can therefore be left in situ if stressed, see (15b), which shows that the stressable simple pronoun *ham (and the stressed intensified reflexive *sig selv) but not the unstressable *sig can follow the negation *ikke ‘not’.

(15)  a.  Peter; vaskede *sig; / *sig; selv / *HAMz; / *hamz; / *bilen ikke.(+object shift)
     Peter washed REFL/REFL self/him/REFL car-the
     Peter did not wash (himself)/him/the car.

     b.  Peter; vaskede ikke *sig; / *sig; selv / HAMz; / *hamz; / bilen.(object shift)
     Peter washed not *REFL/REFL self/him/car-the
     Peter did not wash himself/him/the car.

Summarizing the above, we follow Halpern (1992) and Jakubowicz’s (1994) in concluding “that Danish clitics are syntactically independent prosodically bound words, whereas in modern French, *se as well as *le are clitics that select for morphological attachment. Thus *sig and *ham form only a prosodic constituent with their host and not a morphological one”(Jakubowicz 1994, p. 118-9). In brief, a crucial difference between *ham ‘him’ and *sig ‘REFL’ illustrated in (15) boils down to stressability: while *sig can never receive stress, see the tests in (10), *ham ‘him’ can, see (15b). When unstressed, both *sig and *ham are syntactically independent but prosodically bound words. Since the negation *ikke ‘not’ cannot felicitously receive stress it is not a viable host for prosodically dependent clitics. In contrast, the proper name *Ida in (15a) can be stressed and is thus able to host clitics. The simple

\(^1\) Examples as well as discussion thereof are from Jakubowicz (1994:218, i-ii).
pronoun *ham* can still be made acceptable in (15b) by attracting sentence stress onto itself, although thereby changing the meaning contribution of the sentence by adding the corresponding focus-generated implicatures (contrast, contextually defined scales of prominence/remarkability, etc.). Since the simple reflexive *sig* on its own cannot be stressed under any circumstances the only way to save the sentence is to enable *sig* to receive sentence stress by adnominally intensifying it, see (15b).

Based on the differences between *sig* and *sig selv* described above it is clear that these expressions must have different syntactic representations. Adopting Longobardi’s analysis of nominal expressions (which goes back to Abney (1987)) we assume that all nominal arguments are projections of a head D constituent. As argued in chapter 2, section 2.2.2.3, this approach makes it possible to arrive at an elegantly unified account of the syntax of nominal expressions in argument positions, see (16).

(16) a. \[ DP [N kong ] [D -en ] ] ‘the king’
b. \[ DP [D ham] ] ‘him’
c. \[ DP [D sig ] ] ‘REFL’

As shown in (16) all nominal arguments are assumed to be projections of a head determiner. Pronouns and reflexives are assumed to behave as determiners, i.e. they are assumed to head their own DPs, see (16b) and (16c). Besides making it possible to arrive at a unified analysis of the syntax of nominal expressions in this approach has the additional advantage of enabling us to unify the account of adnominal intensification. As discussed in chapter 2 intensified nominals such as *kongen selv* ‘the king himself’ are best analyzed as simple adjunction structures, see (17a).

(17) a. \[ DP [DP [N kong ] [D -en ] ] [selv ] ] ‘the king himself’
b. \[ DP [DP [D ham ] ] [selv ] ] ‘him self’
c. \[ DP [DP [D sig ] ] [selv ] ] ‘REFL self’
As shown in (17b) and (17c) the complex pronoun *ham selv* ‘him self’ and the complex reflexive *sig selv* ‘REFL self’ can be analyzed as intensified DPs having the same syntax as intensified R-expressions. In other words, syntactically all types of nominal expressions behave alike with respect to intensification.

The fact that both simple pronouns and simple reflexives can undergo object shift follow from their ambiguous X₀/XP status. In contrast, full lexical DPs as well as intensified reflexives and pronouns, neither of which can undergo object-shift, are unambiguously XPs. The differences between *sig* and *ham* illustrated in (10a-e), follows from stressability rather than syntax: *ham* can be stressed, while simple *sig* cannot\(^{16}\).

### 3.2.4 Consequences of relegating binding and intensification to different modules: a syntactic approach to binding of reflexives: principle A

The central claim defended here is that simple *sig* and complex *sig selv* have the same properties with respect to the binding theory and that whatever properties *sig selv* has in addition to simple *sig* derive from the intensifier *selv* ‘self’. One often mentioned difference between simple and complex reflexives, which appear to contradict this claim, is their seemingly different behavior with respect to long-distance binding, see (18) which illustrate that in an out-of-the-blue context the simple reflexive *sig* can be long-distance bound while the complex reflexive *sig selv* cannot.

(18) *Peter, bad Jørgen, barbere sig\(\_z\) / sig\(\_z\_\_z\_z\_z\_z\) selv.*
    *Peter ask-PAST Jørgen shave-INF REFL*  
    ‘Peter asked Jørgen to shave him/himself.’

Since Faltz (1975) there has been a tendency to link the morphological complexity of reflexive elements to locality. For Danish and similar languages (e.g. the other mainland Scandinavian languages, Dutch, etc.) this lead to the proposal that the simple reflexive *sig* is anti-local (i.e.
specialized for LD-binding) while the complex reflexive sig selv has to be locally bound (cf. Vikner 1985, among others). As will be shown below, both of these assumptions are wrong. The simple reflexive sig can indeed be a locally-bound, theta-role receiving argument anaphor (as shown by the example in (18)) and, given the right circumstances, complex reflexives may be LD-bound. Notice that this does not amount to the claim that sig and sig selv have identical behaviors. On the contrary, it is quite obvious that sig and sig selv do behave differently in many respects. But rather than trying to account for these differences within binding theory, we divide the explanatory burden between two modules, i.e. binding and intensification. That is, we argue that any differences between sig and sig selv should be accounted for not by reference to binding principles but by reference to factors related to adnominal intensification, i.e. focus, prosodic differences, doppelgänger-effects, etc. For expository reasons, we will limit the following description of binding properties of Danish reflexives to the behavior of simple sig, - the assumption being that the any differences between sig and sig selv follow either directly from the binding-independent principles of the module of intensification or are phonological, syntactic or semantic side-effects of intensifier-adjunction.

Before jumping ahead to the analysis of complex reflexives in Danish, let us first consider the relevant descriptive generalizations concerning the binding of the simple reflexive sig. Consider the sentences in (19) which illustrate the locality constraints restricting the distribution of sig.

(19) a. \([Peter, \text{barberede } \text{sig}_i]_o\],
    Peter shave-PAST REFL
    ‘Peter shaved (himself).’

---

16 See also section 3.3.6 where stressability will be discussed in more detail.
The sentence in (19a) illustrates that while sig may be locally bound\(^{18}\), it cannot have a sentence-external antecedent or be used deictically. The sentences in (19b,c) illustrate that sig need not be bound by the most local sentence-internal subject, but may be long-distance bound by a higher subject provided that it (pseudo-)

agrees in person. Finally the sentences in (19d) vs. (19c) illustrate the locality constraint on long-distance binding: long-distance binding of sig is only ok as long as the antecedent is still located inside the minimal tensed clause containing sig.

Though languages which allow long-distance anaphora seem to differ widely with respect to the type of complement out of which binding of reflexives can occur, typological studies claim to have discovered the implicational universal in (20) (adapted from Huang (2000:92-3), cf. also Burzio 1996, 1998).

\[(20)\quad \text{An implicational universal for long-distance anaphora complement types:}\]

\[
\text{NPs} > \text{small clauses} > \text{infinitivals} > \text{subjunctives} > \text{indicatives}
\]

What (20) says is that if a language allows LD-binding of reflexives into a certain type of complement then it will also allow LD-binding of reflexive into all the types of complements lower on the hierarchy. That is, if a language allows LD-binding into indicative complement

\(^{17}\) Note that unlike Chinese zǐjī  “[self-self”, Danish reflexives are not subject to blocking by intervening 1st or 2nd person pronouns. This difference may be due to the fact that sig is a reflexive anaphor while zǐjī is an adnominal intensifier. Exploring this idea is, however, beyond the scope of this dissertation and will be left for future research.

\(^{18}\) A number of analyses of Danish and similar languages (e.g. Vikner (1985) etc.) deny that such examples show that sig can be locally bound. Instead, they claim that instances of local sig are not true reflexive anaphors but
clauses then it will also allow binding of reflexives into all the other types of complements. Danish, which allows LD-binding out of infinitivals thus also have LD-binding out of small clauses (and resultatives) and NPs as discussed in section 3.3. In contrast, Italian is reported to allow LD binding out of subjunctives (cf. Huang (2000:93)) and Old Icelandic is claimed to be of the most inclusive type, allowing LD-binding even out of indicative clauses (cf. Sigurdsson 1990a, quoted in Huang (2000:93)). Many attempts have been made to give a unified account of the various types of LD-binding found in the worlds languages. While the reduction of such cross-linguistic variation to unified account based on a small set of general principles is, of course, the ultimate goal of linguistic theory it remains beyond the scope of the present dissertation. The rest of this chapter will therefore be limited to binding of sig in Danish. That is, our aim will be to explain the following descriptive generalization concerning domain restrictions, see (21).

(21) **Descriptive generalization I:**

\[ \text{sig must be bound inside the minimal tensed clause}^{19}. \]

Now let us turn to another property of Danish reflexives, viz. subject orientation. Unlike Eng. *himself* which appears to allow binding by non-subject antecedents\(^{20}\), see (22), Dan. *sig* can only be bound by subject antecedents, see (23).

(22) **Peter told Mary, about herself.**

---

\(^{19}\) The generalization in (21) is based on examples with infinitival clauses functioning as complements of verbs denoting acts of communication (e.g. saying, uttering, etc.). Theoretically it should be possible to find examples of LD-binding of *sig* out of non-complement infinitival clauses. The sentence in (i) exhibits LD-binding of *sig* out of an adverbial clause:

(i) **Den asketiske munk flyttede hen til Ganges floden for at kunne vaske sig i helligt vand hver morgen.**
the ascetic monk moved over to Ganges river-the for to be-able-to wash REFL in holy water every morning

‘The ascetic monk moved to the River Ganges to be able to wash himself in holy water every morning.’

\(^{20}\) Rather non-thematic grammatical markers forming part of a complex predicate and that thematic *sig* is specialized for long-distance binding. See chapter 4 for more discussion and criticism of such analyses.
(23) Peter, fortalte Marie, om sig selv.
Peter told Marie about REFL self
‘Peter told Marie about himself.’

This leads us to the more precise descriptive generalization in (24).

(24) **Descriptive generalization I (revised version):**
sig must be bound by a subject inside the minimal tensed clause.

Chomsky’s (1981, 1986) binding theory, see (25)-(27), has met with a great deal of criticism over the years. It has been claimed that a number of cross-linguistically wide-spread phenomena cannot be captured properly by these principles, e.g. logophors, overlap in distribution of reflexives and pronouns in certain contexts, e.g. possessive constructions, picture-NP, etc. In this dissertation, however, it will be argued that the original insights of Chomsky’s syntactic approach to binding are basically sound. That is, the distribution of anaphors and pronouns is controlled by syntactic domain constraints like principles A and B, see (25)-(28).

(25) a. An anaphor is bound in a local domain.
    b. A pronominal is free in a local domain.

(26) alpha binds beta if and only if
    (i) alpha is in an A-position,
    (ii) alpha c-commands beta, and
    (iii) alpha and beta are co-indexed.

(27) alpha c-commands beta if and only if
    (i) alpha does not dominate beta,
    (ii) beta does not dominate alpha and
    (iii) the first branching node dominating alpha also dominates beta.

---

20 See chapter 5 where it is argued that English self-forms locally bound by non-subject antecedents (as in (22) above) are really reduced forms of intensified pronouns, e.g. *herself* in (22) is assumed to derive from the adnominally intensified pronominal *her herself*. 
(28)  Binding Domain\textsuperscript{21}  
alpha is a binding domain for beta if and only if alpha is the minimal category (i.e. the smallest DP or IP/S) containing beta, a case-licensor or beta, and a SUBJECT accessible to beta.

As discussed in the following, apparent exceptions to these principles should be explained either by reference to parametric variation (e.g. with respect to what counts as binding domain in a given language or with respect to morphological properties of reflexives (i.e. their status as either affixes, clitics, free forms, etc.)) or by reference to binding-independent factors (e.g. semantic/pragmatic factors influencing adnominal intensification of reflexives, prosodic factors (e.g. stressability), etc.) rather than by radically changing the architecture of binding theory.

As the descriptive generalization in (24) states, in Danish the local domain is the tensed clause. This is illustrated by the sentence in (29) which shows that any subject within the minimal tensed clause is a potential antecedent for sig.

(29)  \textit{Peter hørte Marie, bede sygeplejersken, vaske sig/\textit{o}.}  
Peter heard Mary ask-INF nurse-the wash-INF REFF  
‘Peter heard Marie ask the nurse to wash REFL.’

That is, more specifically, in (29) the antecedent of sig can be either the closest subject sygeplejersken ‘the nurse’, the intermediate subject Marie or the matrix subject Peter. Thus the two facts about sig which any theory must be able to explain is why it must be bound within the minimal tensed clause and why the binder must be a subject. In the following a modified version of Pica’s (1984,86) LF movement approach to LD-binding of reflexives will be

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\textsuperscript{21} The “binding domain” referred to in (28) corresponds what in older versions of the theory used to be called the Governing Category, usually defined as in (i).

(i) \textbf{Governing Category (GC)}  
\quad Alpha is a GC for beta if and only if alpha is the minimal category (i.e. the smallest DP or IP/S) containing beta, a governor of beta, and a SUBJECT accessible to beta.

Cf. also the older version of Governing Category from Chomsky 1986, p. 169, given in (ii) below.

(ii) \textbf{Governing Category (GC) (Chomsky 1986)}  
\quad ‘A governing category of alpha is a maximal projection containing both a subject and a lexical category governing alpha (hence containing alpha). A governing category is a ‘complete functional complex’
outlined. The advantages of Pica’s LF movement analysis of LD-binding have been argued to be that it provides a unified analysis of three properties considered to be common to all LD-anaphora listed here in (30a-c).

(30)  
   a.  LD-binding  
   b.  subject-orientation  
   c.  morphological simplicity

Successive cyclic movement from lower to higher INFLs/Ts via COMP allow one to consider LD binding of sig as obeying the locality requirement of principle A. As shown in section 3.2.2, sig lacks phi-features. We therefore assume that it has to adjoin to INFL/T in order to obtain features from the subject via spec-head agreement. This explains why sig is always subject-oriented (cf. Jakubowicz 1994:119). Though both Danish sig ‘REFL’ and its French counterpart se ‘REFL’ are clitics base-generated in argument position, they still differ in important ways as described in section 3.2.3. Unlike Romance clitics, e.g. French se, which cannot be separated from their host, Danish sig can be separated from the verb by other material, see examples (11) and (12) in section 3.2.3. That is, French se moves along with its host verb when it moves overtly to adjoin to INFL/T (cf. Pollock 1989), see (11). In contrast, Danish sig is a syntactically independent prosodically bound word which does not form a morphological constituent with its host22, see (12). Thus when sig moves from its based-generated position to a higher INFL/T this has to be an instance of covert movement at LF. Long-distance binding of sig can thus be explained as a resulting from cyclic movement of sig from the lower INFL/T to a higher INFL/T (cf. Jakubowicz 1994:126, Pica 1987, Cole, Hermon, and Sung 1990, etc.).

(CFC) in the sense that all grammatical functions compatible with its head are realized in it” (Chomsky 1986, p. 169).

22 In contrast to Jakubowicz (1994:123), who assumes that certain Danish verbs (i.e. [+affectedness] verbs) “can incorporate the element projected in their internal argument position”, we do not assume incorporation of sig into the verb in cases of locally bound sig (e.g. Peter forsvarer sig ‘Peter defends himself’).
The claim that only morphologically simple reflexives can be LD-bound stems from the observation by Faltz (1975) that, cross-linguistically, simplex reflexives tend to allow LD-binding while morphologically complex reflexives must be locally bound. Since, in the LF movement analysis, only head elements can undergo head-to-head movement, that allegedly explains why, as it is claimed, only morphologically simple reflexive elements can be LD-bound.

While we agree that Pica’s LF movement analysis provides a satisfactory account of both LD-binding and subjection orientation (30a-b), we disagree with its account of the difference between simple and complex reflexives (30c). First of all the descriptive generalization that only simple reflexives can be LD-bound while complex reflexives must be locally bound may not be as solid as it seems. The fact that so-called complex reflexives can be long-distance bound has been brought up in the literature, e.g. the following German and Japanese examples of long-distance binding of the complex intensifier-based reflexives sich selbst ‘REFL self’, and zibun-zisin ‘self-self’ discussed in Huang (2000:96, example (2.169c,d)), see (31)-(32).

(31)    Willi₁ dachte, daß Hans₂ mit Fritz₃ über sich₁² selbst gesprochen hat.
          ‘Willi thought that Hans has spoken with Fritz about REFL self spoken has
          ‘Willi thought that Hans has spoken with Fritz about himself.’

(32)    Takasi₁-top Hirosi-SUBJ zibun-zisin₁ ni kasite kureta kuruma-o kowasite simatte.
          ‘Takasi has broken the car which Hirosi lent self-self.’

Based on such examples we conclude that the LF movement analysis has to be modified so as to allow for the possibility of LD-binding of adnominally intensified reflexives. Note that the complex reflexives in (31) and (32), i.e. sich selbst ‘REFL self’, and zibun-zisin ‘self-self’, both qualify as adnominally intensified reflexives in that they are composed of the simple reflexives sich ‘REFL’ and zibun ‘SELF’ to which the adnominal intensifiers selbst ‘self’ and
zisin ‘self’ have been adjoined. In this sense they are entirely parallel to the Danish intensified reflexive sig selv ‘REFL self’. Since we know that adnominal intensifiers can be stranded (Q-floated) by movement of their associate, it is only logical to assume that the same thing may happen in the case of intensified reflexives. That is, we assume that, at LF, the X° reflexive sig may move covertly to a higher INFL or T° node on its own leaving the intensifier behind. For expository reasons detailed discussion of LD-binding of complex reflexives will be postponed till section 3.3.1. The remainder of this section will contain a brief outline of how the version of the LF movement analysis defended here accounts for both local and LD-binding of simple sig.

The reflexive is assumed to have interpretable but non-valued features. It thus needs to move to get its features valued, see (33).

(33) \[ \text{sig} \quad [+\text{interpretable, non-valued}] \text{features} \]

The structure in (34c) illustrates a sentence containing a locally bound reflexive at spell-out.

(34) \[ \text{Local binding of thematic sig with neutral predicates (embedded clauses):} \]
   a. Array: \{at, John, vasker, sig, ikke\}
   b. Sentence: .... at John ikke vasker sig.
      that John not washes REFL
      ‘… that John doesn’t wash himself.’

\[ \text{See the analysis of q-floated adnominal intensifiers in chapter 2, section 2.2.5.} \]
In (34) the simple reflexive sig merges with the neutral verb vaske ‘wash’ from which it receives both case and the internal theta-role. An embedded clause was chosen for this example in order to avoid the complications of V2 word-order and object-shift – both phenomena which occur only in main clauses. The negation – which is assumed to adjoin to the left edge of the predicate (i.e. vP) does not play any role here and is just added to facilitate comparison with structures discussed in (36). Just like traditional LF-movement analyses of LD-binding à la Pica (1984, 1986), we assume that it is the specific featural properties of sig which dictate that it must move to adjoin to T’ at LF in order to get interpreted. That is, sig is assumed to have [+interpretable, -valued] features. In other words, since sig has no lexical content of its own it has to move to enter into a spec-head relation with the subject John in order to be interpreted. The bracketed sentence in (35c) illustrate how the LF-movement analysis accounts for LD-binding of sig.
LD-binding of thematic sig with neutral predicates (embedded clauses):

a. Array: {at, John, bad, Hans, vaske, sig}

b. Sentence: … at John bad Hans vaske sig.
   that John asked Hans wash REFL
   ‘… that John asked Hans to wash him/himself.’

c. \[
[CP [C at [TP Johni [T \[T^o\ sigk \[VP bad Hansk \[CP \[T' \[T to \[VP bad Hansk \[CP \[TP PROk \[T \[T^o \[T \[T to \[VP vaske t]]]]]]]]]]]]]]]]]]
\]

d. \[
[CP [C at [TP Johni [T \[T^o\] [VP bad Hansk \[CP \[TP PROk \[T \[T^o \[T \[T to \[VP sigk \[VP vaske t]]]]]]]]]]]]]
\]

Since sig is a head it can undergo successive cyclic movement from lower infinite T to a higher finite T where it may receive lexical content from its antecedent through spec-head agreement. It may also, as shown in (35d), get its features valued by spec-head agreement with the subject of the embedded clause.

In main clauses, Danish has V2 word order as well as object shift of personal pronouns and reflexives. V2 word order entails movement of a constituent (often the subject) and the main verb to spec-CP and C respectively. And object-shift involves the movement of pronouns and reflexives from their argument positions to spec-vP (cf. Platzack and Holmberg (1995), McGinnis (1999)). Both processes are illustrated in (36) which shows the sentence at spell-out. In order to get interpreted the reflexive sig will still have to move to T at LF as described above.
(36) **Local binding of thematic sig with neutral predicates (main clause):**

a. Array: \{John, vasket, sig, ikke\}

b. CP
   \[\]
   \[John\] \\
   \[\]
   \[vasket\] \\
   \[TP\] \[\]
   \[T'\] \[vP\] \\
   \[t\] \\
   \[t\] \\
   \[sig\] \\
   \[\]
   \[NEG\] \\
   \[ike\] \\
   \[DP\] \\
   \[\]
   \[v\] \\
   \[VP\] \\
   \[V\] \\
   \[DP\] \\
   \[t\] \\
   \[t\]

So far only examples with local and LD-binding of the simple reflexive sig in argument position of neutral verbs have been discussed. In the following section the viability of the analysis proposed here will be scrutinized by a closer investigation of how it deals with both simple and complex reflexives in a number of different syntactic environments as well as with different types of predicates. The analysis of non-thematic sig which occurs with certain “deponent”/inherently reflexive verbs (e.g. *skamme sig* ‘(lit.) shame REFL/be ashamed’, *brænde sig* ‘(lit.) burn REFL/(accidentally) get burned’ will be discussed in chapter 4, section 4.3.
3.3  Binding of reflexives in different contexts: testing the independence of binding and intensification.

In the following sections, the descriptive and explanatory adequacy of the analysis of Danish reflexives presented in section 3.2 will be put to the test by taking a closer look at the behavior of simple and complex reflexives in different syntactic positions. That is, we discuss morphological complexity and locality (section 3.3.1), reflexives as direct objects of different predicates (section 3.3.2), reflexives in resultative constructions (section 3.3.3), reflexives in ECM constructions (section 3.3.4), possessive reflexives (section 3.3.5), as well as reflexives in prepositional predicates and PPs (section 3.3.6). In all cases, it will be shown that the differences between sig and sig selv follow from adnominal intensification rather than binding-related factors.

3.3.1. The independence of intensification and locality constraints.

According to accounts of Danish currently found in the literature (e.g. Vikner (1985), Jakubowicz (1994), etc.), the complex reflexive sig selv is a subject-oriented reflexive which cannot be long-distance bound, see (37).

(37)  
McArthur said sygeplejeren gave me a morphine injection.
McArthur asked nurse-the give ____ a morphine injection
‘McArthur asked the nurse to give himself a morphine injection.’

a. sig\textsubscript{\textit{i/k}} REFL
b. sig\textsubscript{\textit{i/k stamina}} REFL

Jakubowicz (1994:130-131) explains the absence of LD-binding of the complex reflexive sig selv as a consequence of its syntactic structure. Unlike sig, which is a head, sig selv is a maximal projection which cannot undergo successive cyclic movement from a lower to a higher INFL/T via COMP without violating the ECP. However, since sig selv is also
featureless it must move the closest INFL/T to obtain features which explains why, like sig, it can only be bound by a subject antecedent.

As mentioned above, sig selv has so far been assumed to be a local reflexive. However, given the right context it is possible to find examples in which sig selv may (at least marginally) felicitously be LD bound, see (38) and (39).

(38) Context: McArthur is an extremely tough general who feels that the lightly wounded soldiers ought to put up with the pain in order to save painkillers for the truly needing. When McArthur himself got a large piece of shrapnel in his thigh he stubbornly refused to take any kind of painkillers. But in the end the pain became too much for him. So far his principles had dictated him to ask the nurses to give the painkillers to the other soldiers in his ward.

Men igår, sent på natten bad McArthur mig endeligt give _____ en morfinindsprøjtning.
But yesterday, late on night-the asked McArthur me finally give-INF _______ a morphine injection
‘But yesterday, late at night McArthur, finally asked me to give _______ a morphine injection.’

a. ?sig; selv   REFL; self
b. ?sig;       REFL

In (38) the local subject mig ‘me’ is first person and is thus ruled out as a potential antecedent for sig due to lack of (pseudo-)agreement with the reflexive. The only possible antecedent for sig is therefore the matrix subject McArthur. The elaborate context given in (38) also contributes to making the matrix subject the most likely antecedent. Furthermore, the context explicitly contrasts a typical situation, in which McArthur asks the nurse to give one of the other wounded soldiers an injection, with the truly exceptional situation in which he asks the nurse to give himself an injection. In other words, the explicitly contrastive context triggers focusing of the reflexive sig which, due the fact that simple sig cannot be stressed, has to be realized as the adnominally intensified reflexive sig selv.

The example in (39) is identical to (38) except for the local subject which has been replaced by the 3rd person DP sygeplejeren ‘the nurse’ which is a potential antecedent for the reflexive since it (pseudo-)agrees with sig.
As shown in (39a) the presence of this potential subject antecedent does make LD-binding of sig selv more difficult to obtain than LD-binding of simple sig (39b), but it does not exclude it. The ‘*’ in (39d) is due to the anti-reflexivity of the predicate give ‘give’. Now, if it is the case that sig selv is even marginally acceptable long-distance bound (given the right context) then Pica and Jakubowicz’s accounts of sig selv as a local anaphor cannot be correct. We know from the discussion of q-floated intensifiers in chapter 2, section 2.2.5, that adnominal intensifiers may be stranded in the same way as floated quantifiers when the associate has to move to a higher position, e.g. V2 movement of the subject DP, see (40a). We also know that intensifiers can be fronted while leaving their associate behind, as discussed in chapter 2, section 2.2.6, see (40b).

It is therefore natural to assume that the sig of the intensified reflexive sig selv may leave the adjoined intensifier selv behind when it undergoes cyclic LF movement to get features from the matrix subject in sentences like (38a) and (39a). While such an approach makes it possible to account for LD-binding of sig selv, it does not by itself explain why LD-binding of complex
reflexives is so rare as to have been overlooked (or marginalized) by researchers working on Danish reflexives for so long. Within the analysis proposed in this dissertation a straightforward explanation of the rarity of LD-bound sig selv naturally presents itself. As discussed in greater detail in section 3.3.2, one of the main motivations for intensifier-adjunction to simple reflexives is predicate meaning. Anti-reflexive predicates like afløse ‘replace, relieve (someone as guard)’ are not readily compatible with reflexive scenarios. Therefore, when such readings are forced, they have to be construed as relations between the referent of the antecedent and a representation of the referent of the reflexive. As discussed in section 3.3.2, this doppelgänger-effect triggers the intensification of locally bound reflexives with anti-reflexive predicates, see (41a).

(41) a. Vagten, afløste *sig i/ sig selv.  
   guard-the replaced REFL/REFL self  
   ‘The guard replaced himself.’

b. Vagten, bad Peter afløse sig i/*k/ sig ?i/k selv.  
   Guard-the asked Peter replace REFL  
   ‘The guard asked Peter replace himself.’

When the meaning of the predicate is compatible with reflexive scenarios (e.g. neutral and inherently reflexive predicates) then selv-adjunction to locally bound sig is not mandatory for semantic reasons. In the case of neutral predicates, selv-adjunction to sig thus has to be motivated either by explicitly contrastive contexts or phonological factors (as in the case of certain prepositional predicates). The same applies to LD-bound instances of reflexives in argument position of anti-reflexive verbs, see (41b). That is, as shown in (41b) vs. (38-9), in the absence of an explicitly contrastive context, as for instance, the kind triggered by anti-reflexive predicates (41a), intensification of LD-bound sig selv is not felicitous.

Other contexts which license intensification of reflexives are the so-called wax museum contexts involving the use of reflexive pronouns to refer to statues/representations of
the individual denoted by the antecedent. First consider the instances of locally bound \textit{sig} and \textit{sig selv} in (42).

(42) Context: Imagine Bill Clinton visiting the wax museum. He notices a statue of himself with an unshaven face. Since he doesn’t like the look of the statue he takes out a razor and starts to shave it. A third party witnessing this situation describes it in the following terms:

  a. \textit{Bill Clinton, barberede sig},
  b. ....... \textit{sig, selv}.

‘Bill Clinton shaved RELF/REFL self’

The sentence with the simple reflexive in (42a) can only have the interpretation in which the real Clinton shaves himself (i.e. the real Clinton), see (43a). It cannot have the so-called statue-reading, see (43b), in which the real Clinton shaves a statue of Clinton. In contrast, the sentences with the complex reflexive in (42b) can have both reading (43a) and (43b).

(43) a. Clinton<real> shaves himself<real>.
   b. Clinton<real> shaves himself<statue>.

What these examples show is that in order to get a statue-reading of a reflexive pronoun it must be adnominally intensified. The example in (44) is designed to test what happens when a statue-reading of a LD-bound reflexive is forced.

(44) Context: Imagine Bill and Hillary Clinton visiting the wax museum together. Bill notices a statue of himself with with an unshaven face. He happens to have a razor in his inner pocket but since he is temporarily in a wheel chair (due to a recent golfing accident) he hands the razor to Hillary and asks her to go over and shave the statue. A third party witnessing this situation describes it in the following terms:

  a. \textit{Clinton, bad Hillary, barbere #sig},
  b. \textit{(?)sig, selv}.

‘Clinton asked Hillary shave RELF/REFL self’

Although solid judgments are hard to come by in sentences like (44)\footnote{Two factors conspire to make sentences like (44) extremely difficult to judge. First, there is a growing tendency to use pronouns instead of LD-bound reflexives. That is, most native speakers rarely use LD-bound reflexives, preferring to use pronouns instead. Second, many informants do not like statue-readings of reflexives. The usual reaction being: “I would never say “Clinton shaved himself” in such cases but rather “Clinton shaved the statue of Clinton.”} it seems to be the case that \textit{sig selv} is more felicitous than \textit{sig}. Once again, the generalization that \textit{sig selv} cannot be
LD-bound appears to be too strong\textsuperscript{25}. That is, syntactically, \textit{sig} and \textit{sig selv} behave alike with respect to binding-related locality constraints. Pragmatically and semantically they differ with respect to which contexts they may or may not occur in. But these differences falls under the theory of intensification, as presented in chapter 2. So while it is true that there is a strong tendency for \textit{sig selv} to have local antecedents this is due to the pragmatic/semantic constraints on intensification rather than to syntactic locality constraints on the distribution of reflexives and pronouns.

### 3.3.2 Locally bound reflexives in argument position: complex reflexives = a sub-type of adnominal intensification.

In the following four sections (i.e., sections 3.3.2.1-4) an intensification-based account of the distribution of Danish simple and complex reflexives, i.e. \textit{sig} and \textit{sig selv}, with different types of predicates will be outlined. Based on what kinds of nominal expressions they allow in object position, Danish verbal predicates can be divided into three main types\textsuperscript{26}: (i) “neutral” predicates which allow both simple and complex reflexives (i.e. \textit{sig} and \textit{sig selv}) and DPs, see (45), (ii) “anti-reflexive” predicates which allow the complex reflexive \textit{sig selv} and DPs but not the simple reflexive \textit{sig}, see (46), and (iii) “inherently reflexive” predicates which allow only the simple reflexive \textit{sig}, see (47).

(45) \textbf{“Neutral” predicates:}
\begin{enumerate}
    \item \textit{Peter vasker sig / sig selv / bilen.}
    Peter washes REFL / REFL-SELF / car-the
    ‘Peter washes himself / the car.’
\end{enumerate}

\textit{himself”, etc…”}. However, if only given the choice between \textit{sig} and \textit{sig selv} in sentences like (44), with a forced statue-reading of the reflexive, then \textit{sig selv} appears more felicitous.

\textsuperscript{25} See also example (109b) in section 3.3.5 which clearly shows that intensified possessive reflexives (e.g. \textit{sin egen} ‘POSSREFL own’) may be LD-bound.

\textsuperscript{26} This tripartite typology of predicates is directly inspired by a similar proposal by Zribi-Hertz (1995).
b. *Peter forsvarer sig / sig selv / Marie.* 
Peter defends REFL / REFL-SELF / Mary 
‘Peter defends himself / Mary.’

(46) “Anti-reflexive” predicates:

a. *Peter mistænker *sig / sig selv / Marie.* 
Peter suspects *REFL / REFL-SELF / Mary 
‘Peter suspects himself / Mary.’

b. *Peter misunder *sig / sig selv / Marie.* 
Peter envies *REFL / REFL-SELF / Mary 
‘Peter envies himself / Mary.’

(47) “Inherently reflexive” predicates:

a. *Peter skammer sig /*sig selv /*Maire.* 
Peter shames RELF / *REFL-SELF / *Mary 
‘Peter is ashamed of himself / Mary.’

b. *Peter dukker sig / *sig selv / *Marie.* 
Peter ducks REFL / *REFL-SELF / *Mary 
‘Peter ducks *himself / *Mary.’

The distribution of different types of nominal expression in object position with the different verb types is summarized in (48).

(48) Distribution of nominal expressions in object position:

<table>
<thead>
<tr>
<th>Type</th>
<th>Expression</th>
<th>Position</th>
<th>Object Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Anti-reflexive</td>
<td>*sig / sig selv / DP</td>
<td>sig selv / sig selv / DP</td>
<td>DP</td>
</tr>
<tr>
<td>b. Neutral</td>
<td>sig / sig selv / DP</td>
<td>sig selv / sig selv / DP</td>
<td>DP</td>
</tr>
<tr>
<td>c. Inherently reflexive</td>
<td>sig / *sig selv / *DP</td>
<td>*sig selv / *sig selv / *DP</td>
<td>*DP</td>
</tr>
</tbody>
</table>

We argue that the so-called “neutral” transitive verbs that allow the simple reflexive in direct or indirect object position retain their transitivity even when they occur with the simple reflexive sig. In contrast, other approaches (e.g. Reinhart and Reuland 1993, and others) assume that the so-called “neutral” verbs occur twice in the lexicon: once, as a true transitive

---

27 The exact definition “inherently reflexive” is discussed in chapter 4 where a distinction between inherently reflexive predicates with themat reflexives vs. inherently reflexive predicates with non-thematische reflexives is introduced.

28 The term “object position” is used here as a cover term for both direct and indirect object. As shown in (i-iii) below, di-transitive predicates can also be divided into the three main types:

(i) anti-reflexive ditransitive : Peter solgte *sig / sig selv / Mary et hus.
(ii) neutral ditransitive : Peter købte sig / sig selv / Mary et hus.
(iii) inher. refl. ditransitive : Peter anskaffede sig / *sig selv / *Mary et hus.

‘Peter sold/bought/acquired himself/Mary a house.’
verb (which require the complex reflexive sig selv), and once as an inherently reflexive verb (which does not need to be overtly reflexive-marked by the SELF element of the complex reflexive). These competing views of “neutral” predicates will be compared and evaluated in more detail in chapter 4, section 4.2.

With respect to binding, reflexives, pronouns, and DPs have widely different properties. While DPs and pronouns, have semantic content and are able to refer on their own, the reflexive sig does not have phi-features and behaves semantically like a variable which is dependent on its binder for reference. However, from the point of view of intensifier-adjunction, reflexives, pronouns, and DPs are all nominal expressions which may be the target of adnominal intensification. In other words, by assuming that the selv in sig selv is the same adnominal intensifier as the one we find in intensified DPs, e.g. Peter selv kom til mødet ‘Peter himself came to the meeting’, we can now account for the intensified reflexive sig selv using the same analysis as the one used to analyze intensified DPs in chapter 2.

Simply observing the distribution of simple reflexives, complex reflexives and DPs in object position, see (45-48), is not the only way to classify predicates either as “anti-reflexive”, “neutral”, or “inherently reflexive”. There are, as will be shown in the following sections, binding-independent semantic tests which can be used to classify predicates.

3.3.2.1 Anti-reflexives predicates: predicates which are incompatible with reflexive scenarios

In this section we show that it is possible to predict whether or not a given verb is anti-reflexive by testing its semantic compatibility with reflexive scenarios. To illustrate how this semantic testing of predicate meaning works let us take a closer look at the transitive predicates in (49).
Since the verbs in (49) can all take full lexical DPs in object position, they cannot, per definition, be inherently reflexive. But how do we determine whether they are “anti-reflexive” or “neutral” without looking at the distribution of simple and complex reflexives? As mentioned above, we argue that testing for semantic compatibility with reflexive scenarios makes it possible to predict whether a transitive verb is neutral or anti-reflexive. On the basis of this kind of testing, we predict that the verbs in (49f-h) are neutral while those in (49a-e) are anti-reflexive. Based on what they mean, the predicates in (49a-e) simply do not make much sense in reflexive scenarios. For example, how can one of the guards standing guard in front of Buckingham Palace possibly replace himself, see (49a) and (50a)? The new well-rested guard can relieve/replace the old exhausted and sleep-deprived guard exactly because they are different persons. In other words, it is not possible for one person to replace himself in this sense and still remain the same person. The same goes for (49c) efterfølge ‘succeed’. Strictly speaking it makes little sense to say that King Henry IV succeeded himself as king of England, especially since in traditional monarchies a new king can only be crowned after the death of the old, see (50b). One way to make sense of such an utterance would be to assume that King Henry IV only pretended to be dead and then dressed up as the crown prince in order to be crowned in his place. In other words, he would have to appear in someone else’s guise or under a different representation (i.e. that of the crown prince). That is, the generalization seems to be that anti-reflexive predicates presuppose that the linguistic expressions occupying
the positions of external and internal argument do not refer to the same individual, or, as in the sentences in (50), do not refer to the same representation of a given individual.

(50) a. *Vagten afløste sig selv.*
   ‘The guard replaced himself (as guard).’

b. *Henry IV efterfulgte sig selv.*
   ‘Peter succeeded himself (as king of England).’

c. *Peter bønfalde sig selv.*
   ‘Peter implored himself.’

d. *Peter mistænkte sig selv.*
   ‘Peter suspected himself of doing something.’

e. *Peter misunde sig selv.*
   ‘Peter envied himself’

The predicates *bønfalde* ‘implore’, *mistænke* ‘suspect (somebody of doing something)’ and *misunde* ‘envy’ also fall under this generalization in that they only make sense when the arguments are two different individuals, or the same individual appearing under a different representation, see (50c-e). Take the example of *mistænke* ‘suspect’ in (50d). Suspecting somebody of murder means that you have reasons to believe that this person committed a crime but are still unsure whether or not he is the culprit because you lack the evidence to prove it. Since people are normally assumed to know whether or not they have committed a crime it does (under normal circumstances) not make sense to say that they suspect themselves of having committed a crime. The uncertainty presupposed by the predicate *mistænke*

---

29 In the following the terms “representation”, “representational identity” and “representational non-identity” are used to refer to statue-readings, see (i), qua-sentences, see (ii), as well as any other type of sentence which involve differences in referential status between antecedent and reflexive.

(i) *Peter*<real> barberede *sig<statue>/sig<statue> selv.
   ‘Peter shaved himself.’

(ii) *Peter*<qua> i egenskab af barber. barberede *sig/sig selv.
   ‘Peter, working as barber, shaved himself.’

The term “doppelgänger-effect” is also used as a cover term for a wide range of phenomena involving differences in referential status.
‘suspect’, illustrated by the contradictory flavor of the sentence in (51), clashes with the presupposed knowledge of one’s own acts and makes the reflexive use of this predicate infelicitous, unless some kind of presupposed representational non-identity is involved.

(51)  
Peter mistænkte Mary for at have skudt Kennedy og han vidste at hun havde gjort det.  
Peter suspected Mary of having shot Kennedy and he knew that she had done it.’

That is, one way to make sense of (50d) would be to assume that Peter is schizophrenic and thus has multiple personalities, or to assume that he has had memory loss, etc\(^{30}\).

Let us now turn to the verbs barbarede ‘shave’, tørre ‘dry’ and pynte ‘adorn’ in (49f-h). Testing them for compatibility with reflexive scenarios indicates that they are neutral rather than anti-reflexive. A proposition like Peter shaved/dried/adorned himself does not have any of the non-sensical or weird flavor found with the sentences in (50a-e). The activities denoted by the predicates in (49f-h) are entirely compatible with reflexive scenarios. That is, the verbs barbarede ‘shave’, tørre ‘dry’ and pynte ‘adorn’ do not evoke any presupposition of (representational) non-identity. A sentence like Peter shaved himself can (and usually does) mean that Peter shaved his own face. It does not have to mean that he shaved himself under a different representation (e.g. a statue of himself, etc.). Hence, based on compatibility with reflexive scenarios, we predict that these verbs should be neutral (i.e. be able to take both sig and sig selv in object position). The examples in (52) show that this prediction turns out to be true.

(52)  
   Peter shaved / dried / adorned REFL / REFL self / John.
   ‘Peter shaved/dried/adorned himself/John.’

\(^{30}\) The sentence in (i) might be construed as a counterexample to this account.

(i)  
I suspected myself of having committed a fashion faux pas.

Note, however, that in (i) it is not the identity of the person having committed a faux pas which is unknown, but rather the specific conditions under which wearing a specific garment might be considered a faux pas in a given social context. (p.c. J. Higginbotham)
Based on the above examples and discussion we conclude that testing a predicate’s semantic compatibility with reflexive scenarios can be used to determine whether or not a predicate is “anti-reflexive”\textsuperscript{31}. If a transitive predicate is semantically incompatible with reflexive scenarios then it is “anti-reflexive”. In other words, an anti-reflexive predicate can be defined as a predicate whose meaning presupposes that its arguments are either referentially different (i.e. have different semantic values) or (if co-extensional) appear under different representations\textsuperscript{32}, see (53).

\begin{quote}
(53) Anti-reflexive predicates: \\
A given predicate is anti-reflexive if it evokes a presupposition of (representational) non-identity of its arguments that is not cancelable by context.
\end{quote}

Conversely, if a transitive predicate is semantically compatible with reflexive scenarios then it is “neutral”.

It is important to note that the definition of anti-reflexivity defended in this dissertation does not crucially rely on the notion of co-argumenthood. What is important is the relationship between reflexive and antecedent in terms of presupposed representational identity vs. non-identity. Certain contexts trigger a presupposition that reflexive and antecedent are (representationally) non-identical. Predicate meaning is only one among different source of this presupposition. In sections 3.3.3, 3.3.4, and 3.3.5 we show that the meaning of certain resulative constructions, EC, constructions, and possessive constructions, e.g. (100), (104) and (111), also trigger a presupposition of representational non-identity of reflexive and antecedent. The definition in (53), as well as the definitions of neutral and inherently reflexive predicates given throughout section 3.3.2, are thus only to be considered definitions of different predicate-types. The notions of anti-reflexivity, neutrality and inherent

\textsuperscript{31} Cf. E. König’s notion of “other-directedness” and “other-directed” predicates.

\textsuperscript{32} For more discussion of the notions of identity and representational identity, see section 3.3.2.7.
reflexivity are more general and do not rely on the notion of co-argumenthood but rather on presupposed identity vs. (representational) non-identity of antecedent and reflexive.

3.3.2.2 Predicates which are semantically incompatible with non-reflexive scenarios

Predicates that are semantically incompatible with non-reflexive scenarios, i.e. predicates which require reflexive scenarios\(^\text{33}\), can be classified as “inherently reflexive,” see (54)-(56).

\[
\begin{align*}
\text{(54)} & \quad \text{a. Peter is out of his own } / \text{*DP} \_s \text{ mind.} \\
& \quad \text{b. Peter cleared his own } / \text{*DP} \_s \text{ throat by saying ahem.}
\end{align*}
\]

\[
\begin{align*}
\text{(55)} & \quad \text{Peter solede sig / *sig selv / *Marie. (Danish)} \\
& \quad \text{Peter tanned REFL / REFL self / Marie} \\
& \quad \text{‘Peter was tanning/sunbathing.’}
\end{align*}
\]

\[
\begin{align*}
\text{(56)} & \quad \text{a. Peter took the knife with } \text{him / *himself / *Mary.} \\
& \quad \text{b. Peter tog kniven med } \text{sig / *sig selv / *Mary. (Danish)} \\
& \quad \text{Peter took knife-the with } \text{RELF / REFL self / Mary} \\
& \quad \text{‘Peter took the knife with } \text{him / *himself / *Mary.’}
\end{align*}
\]

The meanings of the complex predicate ‘be out of one’s mind’ in (54) and the simple verbal predicate sole ‘tan’ (55) both presuppose the identity of the participants involved in the action/event. Unlike normal bathing, sunbathing can only be performed on one’s own body. Since the unique object cannot be contrasted with other potential sunbathees (i.e. Peter solede *Marie/*barnet/etc. ‘Peter sunbathed *Marie/*the child/etc.’) intensifier-adjunction to sig is not possible. Similarly, since it not possible to go out of somebody else’s mind, intensifier-adjunction of own\(^\text{34}\) to the possessive pronoun his in (54a) is not ok. The English and Danish examples in (56) also qualify as inherently reflexive. In the account proposed here the judgments in the examples in (56) are explained in the same way as (54)-(55). The meaning of

\(^{33}\) Note the difference between the narrow definition of reflexivity (antecedent-anaphor relation between co-arguments) and the more loosely defined notion of ‘reflexive scenario’ (which does not necessarily involve co-arguments), e.g. while both (i) and (ii) qualify as reflexive scenarios only (i) involves reflexivity in the narrow sense.

\[
\begin{align*}
\text{(i)} & \quad \text{Peter washed } \text{Ø himself.} \\
\text{(ii)} & \quad \text{Peter cleared [his, throat].}
\end{align*}
\]
the whole construction ‘X took a knife with Y’ is only compatible with reflexive scenarios in which X=Y. All non-reflexive scenarios in which X ≠ Y necessarily crash because they lead to non-sensical meanings. The theory of adnominal intensification developed in chapter 2 can thus be used to explain why the complex form of the reflexive is not possible. Since the unique object cannot be contrasted with other individuals with whom the knife could have been brought (i.e. *Peter tog kniven med Marie/barnet/etc. ‘*Peter took the knife with Marie/the child/etc.’) intensifier-adjunction to sig is not possible because it would lead to a violation of the contrastiveness condition on adnominal intensification. Presupposed identity of the participants in the action denoted by the predicate/construction can thus be used to determine whether or not a given predicate is inherently reflexive, see (57).

(57) **Inherent reflexive predicates:**
A given predicate is inherently reflexive if it evokes a presupposition of identity of its arguments that is **not** cancelable by context.

Since the examples in (54), involving possessive pronouns and intensifiers, obviously do not involve antecedent-anaphor relations between co-arguments of the same predicate, they constitute strong evidence against both the lexical ambiguity accounts of local reflexives (cf. Reinhart and Reuland 1993) and reanalysis accounts (cf. Vikner 1985). The examples in (56) also pose a threat to lexical ambiguity and reanalysis accounts since it is not obvious that the Subject DP Peter and him/sig in (56a,b) are co-arguments of the same predicate take/tage ‘take’. Unless, of course, one analyzes take _ with _ as a complex predicate. In contrast, since the nominal approach to binding defended here is not based on co-argumenthood, it encounters none of these difficulties in providing a unified account of (54-56).

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34 As discussed in section 3.3.5, we assume that own is the suppletive form of the adnominal intensifier himself.
3.3.2.3 Neutral predicates: predicates which are semantically compatible with reflexive scenarios and which are not semantically incompatible with non-reflexive scenarios

By combining the semantic tests proposed in the previous two sections, a given predicate can now be identified as “neutral” (independently of binding-theoretic factors) if it is semantically compatible with reflexive scenarios while at the same time not being semantically incompatible with non-reflexive scenarios. The verbs in (58a-c) meet these requirements and thus qualify as neutral.

(58)  
   a.  *barbere*  ‘shave’
   b.  *tørre*  ‘dry’
   c.  *pynte*  ‘adorn’

As discussed above, the verbs in (58a-c) are entirely compatible with reflexive scenarios, i.e. they do not evoke any presupposition of non-identity of the representations of their arguments.

A sentence like *Peter shaved (himself)* can (and usually does) mean that Peter shaved his own face. It does not have to mean that he shaved himself under a different representation. We thus conclude that (58a-c) are not anti-reflexive. Furthermore, these predicates are also compatible with non-reflexive scenarios. That is, sentences like *Peter shaved John* are perfectly meaningful. This shows that these verbs are not inherently reflexive, i.e. do not evoke any presupposition of identity of their arguments. Based on such semantic testing for anti-reflexivity, see (53), and inherent reflexivity, see (57), we conclude that (58a-c) are neutral predicates. More generally, we define neutral predicates negatively as predicates that are devoid of particular presuppositions concerning the (representational) identity of their arguments. If (58a-c) are neutral predicates then they should allow *sig, sig selv* and DPs in object position. As (59) shows, this prediction turns out to be true.

(59)  
   *Peter, barberede/tørrede/pyntede sig, / sig, selv / John.*
   
   ‘Peter shaved (himself) / John.’
Notice, however, this kind of semantic testing of neutral predicates is not problem-free. Even if a transitive predicate is logically compatible with reflexive readings this does not necessarily mean that it always allows the simple reflexive sig in object position (as a neutral predicate should do). There are predicates that appear to behave as “anti-reflexives” even though they are logically compatible with reflexive readings. The verb koge ‘boil’ is an example of such a predicate, which at first glance appear to behave as an anti-reflexive in that it disallows simple sig, see (60), but is nevertheless semantically compatible with reflexive readings.

(60)  
  Peter kogte sig / sig selv / Mary.  
  Peter boiled REFL / REFL self / Mary  
  ‘Peter boiled himself / Mary.’

While it may be strange or unexpected given what we know about the world, it still does not lead to nonsense to say that someone consciously puts himself in a big water-filled pot on the stove and then turns on the gas in order to boil himself.

Semantically both barbere ‘shave’, see (59), and koge ‘boil’, see (60), classify as predicates which are compatible with non-reflexive scenarios while at the same time not being incompatible with reflexive scenarios. They should thus both behave as neutral predicates. However, as illustrated by (59) and (60) they differ with respect to the acceptability of simple sig. How do we explain this difference? The fact that predicate meaning is not sufficient to tell the two verbs apart suggests that their differences are to be explained at the level of expectations generated by standard assumptions about the world rather than lexical semantics. Under normal circumstances a person is not expected to boil him- or herself.

Predicates of this type, e.g. koge ‘boil, can change behavior (e.g. from “anti-reflexive” to “neutral”) as a result of changes in the larger context in which it occurs. Compare the way the predicate koge ‘boil’ behave in a “normal” context, see (60) with how it behaves in science-fiction context, see (61).
Science-fiction context based on “special” assumptions about the world:

Did you know that the skin of the Martians can endure much higher temperatures than ours. Indeed, it is quite normal for Martians to wash themselves (sig) in hot oil. Some places it is even normal to boil oneself (sig) in oil with regular intervals.’

The different contexts in (60) and (61), based on different basic assumptions about the way the world works, give rise to different sets of expectations. Based on what we know about boiling and the consequences it has for the human body we expect the verb koge ‘boil’ to be other-directed, i.e. under normal circumstances it denotes an activity that is directed at things or people other than oneself. Hence, it is odd (but not impossible) to say that somebody boiled himself. This explains why simple sig is not fully acceptable in (60). Note that sig is not ungrammatical in (60) but merely unacceptable. As indicated in (60), under normal circumstances focusing of the reflexive through adnominal intensification (i.e. sig selv) is necessary to mark the (representational) non-identity evoked by the expectations of other-directedness associated with the predicate koge ‘boil’ in the normal, non-science-fiction context.

In contrast, in the science-fiction-like context in (61) the background assumptions about the world are different and no longer clashes with the reflexive scenario $x$ boiled $x$. Hence unintensified sig can occur as the object of koge ‘boil’ without making the sentence unacceptable.

Based on the above discussion we conclude that there are two sub-types of “neutral” predicates, see (62).

---

35 We use the symbol * to indicate grammaticality violations and # to indicate violation of pragmatic/discourse principles.
(62) **Sub-types of neutral predicates:**

a. **(Normal) neutral predicates:**
   A given predicate is neutral if it lacks presuppositions concerning the (representational) identity of its arguments.

   Examples:
   - *vaske* ‘wash’
   - *barbere* ‘shave’
   - *tørre* ‘dry’
   - *forsvare* ‘defend’

b. **“Hidden” neutral predicates:**
   A given neutral predicate is a “hidden” neutral verb if normal background assumptions about the world trigger expectations of (representational) non-identity of its arguments.

   Examples:
   - *koge* ‘boil’
   - *dolke* ‘stab’
   - *filme* ‘film, shoot’
   - *forgylde* ‘gild’

Both the normal neutrals in (62a) and the “hidden” neutrals in (62b) are defined by their lack of presuppositions of either (representational) non-identity or identity of their arguments. To the untrained eye, however, the predicates in (62b) at first appear to behave like anti-reflexives in that they disallow simple *sig* under normal background assumptions about the world, see (60). But given the right context (i.e. a different set of background assumptions about the world) they can be shown to accept simple *sig* in object position, see (61). Since their true nature as neutral verbs (i.e. the lack of presuppositions about the identity or non-identity of their arguments) is hidden under normal circumstances, we refer to these verbs as “hidden” neutral predicates.

Note that the anti-reflexive predicates discussed in section 3.3.2.1 cannot be made to allow simple *sig* no matter how much the context is changed. That is, the presupposition of non-identity of the representations of the arguments evoked by anti-reflexive predicates cannot be overridden or cancelled by context. That is, even in a science-fiction scenario in which Martians are described as incurable schizophrenics who pass their days suspecting themselves of this and that; even in such scenarios, simple *sig* is still not ok in sentences like (63).
(63) Marsbeboeren mistænkte *sig / sig selv / Peter.
Mars-dweller-the suspected REFL / REFL self / Peter
‘The Martian suspected himself / Peter.’

The present approach to reflexives can account for the change-of-behavior data in (60-61) without assuming the existence of any specific lexical features distinguishing between “hidden neutral” and “normal neutral” predicates. Instead, it is assumed that the predicate koge ‘boil’ is one and the same in both (60) and (61) and that it is the changes in context (i.e. background assumptions about the world) which are responsible for generating different sets of presuppositions in (60) and (61). This contrasts with other approaches to reflexives (cf. Reinheart and Reuland 1993) which would have to assume the existence of two homophonous predicates: (i) koge₁ ‘boil (something)’ a “normal” transitive predicate, and (ii) koge₂ ‘boil (oneself)’, an inherently reflexive predicate.

3.3.2.4. Summary: Presuppositions triggered by predicate meaning

In sections 3.3.2.1-3 we have shown that predicate meaning and pragmatic factors can be used to predict whether a given verb is anti-reflexive, inherently reflexive, or neutral. Whether a predicate is anti-reflexive or not depends on whether or not it presupposes (representational) non-identity of its arguments, see the definition of anti-reflexivity in (53), repeated here as (64). Whether a predicate is inherently reflexive or not depends on whether it presupposes identity of its arguments, see (57), repeated here as (65). As shown in (66) neutral predicates are characterized by the lack of presuppositions concerning the identity or non-identity of their arguments. Finally, “hidden” neutral predicates, which also lack such presuppositions, are distinguished from (normal) neutral predicates in that they evoke a expectations (based on world-knowledge) of the (representational) non-identity of their arguments, see (62b) repeated here as (67).
(64) **Anti-reflexive predicates:**
A given predicate is anti-reflexive if it evokes a presupposition of (representational) non-identity (of its arguments) that is not cancelable by context.

(65) **Inherently reflexive predicates:**
A given predicate is inherently reflexive if it evokes a presupposition of identity (of its arguments) that is not cancelable by context.

(66) **Neutral predicates:**
A given predicate is neutral if it lacks presuppositions concerning the identity (of its arguments).

(67) **“Hidden” neutral predicates:**
A given neutral predicate is a “hidden” neutral verb if it normal background assumptions about the world trigger expectations of (representational) non-identity (of its arguments).

It is important to remember that the different types of predicates defined in (64-7) are not based on featural differences. Rather the behavior of a given predicate with respect to intensification of reflexives depends directly on its meaning (whether or not it has presuppositions concerning the identity of its arguments) and, in the case of hidden neutrals, on the meaning of the verb plus background assumptions about the world. That is unlike, for example Zribi-Hertz who bases her predicate typology on a [+/-disjoint reference feature], the present account does not rely on binding-related features. Furthermore, as mentioned above, although the definitions in (64)-(67) refer to arguments of predicates, the notion of argumenthood is not crucial for semantic notions of “anti-reflexivity”, “neutrality” and “inherent reflexivity”.

### 3.3.2.5 Complex reflexives as arguments of proto-typical neutral predicates.

In the previous section, we explained why locally bound reflexives occurring in object position of neutral predicates do not have to be intensified. However, we still haven’t addressed the questions why neutral predicates, unlike inherently reflexive predicates, can have locally
bound intensified reflexives as direct objects and why they do take have intensified reflexives in some contexts by simple reflexives in other.

As shown in chapter 2, adnominal intensification of any kind of nominal expression is felicitous only in contrastive contexts, i.e. in contexts in which the intensified DP could have some other referent, see the contrastiveness principle repeated here as (68).

(68) **Contrastiveness condition on adnominal intensification:**
A nominal expression can only be intensified adnominally if it can be contrasted with other expressions in the context in which it is found.

Of the three unsaturated propositions in (69-71b) both (69b) and (70b) give rise to felicitous sentences when expressions referring to entities other than the subject Peter are saturating the empty argument position indicated by x. In other words, with both neutral and anti-reflexive predicates the referent of the expression filling the internal argument position can potentially be contrasted with other entities. Hence intensification of sig is possible with these kinds of verbs. In contrast, with inherently reflexive predicates (71) the argument position can only be filled by an expression which corefers with the subject Peter, i.e. sig. Hence, the referent of the expression filling the internal argument position cannot be contrasted with other entities. Consequently, (68) rules out intensification of reflexives with inherently reflexive predicates.

(69) a. Peter **mistænkte** sig / sig selv / Mary.
Peter suspects *sig / REFL / REFL self / Mary
b. Peter suspects x.

(70) a. Peter vasket sig / sig selv / Mary.
Peter washes REFL / REFL self / Mary
b. Peter washes x.

(71) a. Peter **tog en kniv med** sig / *sig selv / *Mary.
Peter took a knife with *sig / REFL / REFL self / *Mary.
b. Peter took a knife with x.

As shown in section 3.3.2.1, in the case of anti-reflexive predicates it is the presupposition of (representational) non-identity of their arguments which trigger the intensification of sig. But
since, as argued in the previous section, neutral predicates do not presuppose the (representational) non-identity of their arguments, the intensification of sig with proto-typical neutral predicates has to have some other motivation. In the literature it has sometimes been claimed that intensification of sig is optional with grooming predicates (e.g. wash, dress, clean, etc.). However, as the examples in (72)-(73) show, this generalization needs qualification. Intensification of sig with proto-typical neutral predicates is not optional, but rather determined by discourse factors like focus and contrastiveness. That is, intensification of sig has to occur when the referent of sig is focused or explicitly contrasted with some other entity, see (72), and it cannot occur in contexts where sig is not being contrasted or focused, see (73).

(72) Q: Hvem var det nu at Peter havde vasket? Havde han vasket sin hund? who was it now that Peter had washed had he washed POSSREFL dog ‘Who was it that Peter had washed? Had he washed his dog?’
A: Nej, han havde vasket SIG SELV / *SIG.
No he had washed REFL SELF / REFL ‘No, he had washed himself.’

(73) Q: Hvad var det nu at Peter havde gjort før han gik i seng? what was it now that Peter had done before he went to bed ‘What was it Peter had done before he went to bed?’
A: Nej, han havde VASKET sig / #sig selv.
no he had WASHED REFL / REFL self ‘No, He had WASHED himself.’

The example in (73) shows that when the contrast is not on the object of vaske ‘wash’ as in (72) but rather on the predicate itself, then sig can not felicitously be intensified by selv-adjunction. This is due to the fact that no more than one instance of focus is allowed in one sentence (cf. Baker’s (1995)). It has been argued more that a sentence may contain more than one focused element, e.g. Simpson & Wu (2002). Regardless of whether one or more foci is allowed per sentence, the unacceptability of (73) follows from the lack contextual motivation.
for focusing the simple reflexive sig, in addition to the predicate. In other words, we do not exclude the possibility that it may be possible to find contexts in which (73) is ok.

Based on the above discussion, we conclude that although neutral predicates allow both simple unintensified and intensified reflexives, intensifier-adjunction of reflexives still needs to be licensed. Contrastive focus is one way to license complex reflexives with neutral predicates. In the section 3.3.2.7 additional “contextual” triggers of intensifier adjunction of reflexives with neutral predicates will be discussed.

3.3.2.6 Using inalienable possession to test whether a verb is neutral or anti-reflexive

Inalienable possession may be used as a binding-independent method to test whether a given predicate is neutral or anti-reflexive. Neutral verbs differ from anti-reflexive verbs not only with respect to their meaning (i.e. whether or not they presuppose (representational) non-identity of their arguments) and, consequently, the distribution of simple and complex reflexives, but also with respect to the possibility of taking inalienably possessed direct objects. The examples in (74-75) illustrate the differences between neutral and anti-reflexive with respect to inalienable possession.

(74) Neutral predicates allow inalienable possession:

Peter vaskede hænderne.
Peter washed hands-the.

\(^{\text{ok}}\)(i) ‘Peter washed his own two hands.’    (inalienable)
\(^{\text{ok}}\)(ii) ‘Peter washed the hands (of the body he was dissecting).’    (alienable)

(75) Anti-reflexive predicates do not allow inalienable possession:

Peter stjal hænderne.
Peter stole hands-the.

\(^{*}\)(i) ‘Peter stole his own two hands.’    (inalienable)
\(^{\text{ok}}\)(ii) ‘Peter stole the hands (of the body he was dissecting).’    (alienable)
“Hidden neutral” predicates tend not to allow inalienable possession:

Peter kogte hænderne.

Peter boiled hands-the.

(i) ‘Peter boiled his own two hands.’ (inalienable)

(ii) ‘Peter boiled the hands (of the body he was dissecting).’ (alienable)

For the sentence in (74) both of the readings in (i) and (ii) are ok. For the sentence in (75) only the reading in (ii) is possible. That is, while neutral predicates allow inalienable possession, anti-reflexive predicates, e.g. stjæle ‘steal’ in (75), do not. As expected, “hidden neutral” predicates fall in between. Under normal circumstances they are incompatible with inalienable possession, see (76), but given the right context, e.g. the science-fiction context discussed in section 3.3.2.3, it can be allowed, see (77).

Marsmanden kogte hænderne i olie førend han lavede mad. (inalienable)

Martian-the boiled hands-the in oil before he made food
‘The Martian washed his hands in oil before cooking.’

The table in (78) sums up the behavior of different types of predicates with respect to inalienable possession.

<table>
<thead>
<tr>
<th>Predicate type</th>
<th>Allows inalienable possession</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Anti-reflexive</td>
<td>NO</td>
</tr>
<tr>
<td>b. Neutral</td>
<td>YES</td>
</tr>
<tr>
<td>c. “Hidden Neutral”</td>
<td>YES/NO (depending on context)</td>
</tr>
<tr>
<td>d. Inherently reflexive</td>
<td>(Does not apply)</td>
</tr>
</tbody>
</table>

According to Lødrup (1997), who analyzes sig as a generalized inalienable, the ability to license inalienable possession is a common property of all neutral predicates. Lødrup needs this assumption to support his claim that locally bound simple sig and inalienable possessed objects are found in the same contexts. While we do not share these assumptions we do consider inalienable possession to be a useful (though not fool-proof) method to distinguish between anti-reflexive and neutral predicates.

However, rather than analyzing sig as a generalized inalienable, as proposed by Lødrup (1997), we adopt Vergnaud and Zubizarreta’s (1992) analysis of inalienable
constructions which is based on the assumption that inalienable nouns take a possessor argument which is syntactically bound to the external possessor (which in Danish is usually the subject DP). Vergnaud and Zubizarreta argue that while inalienable nouns take a possessor argument, see (79a), alienable nouns do not, see (79b).

(79)  

a. hænderne(x) ‘the hands’  
b. hænderne ‘the hands’  

They furthermore assume the existence of a lexical redundancy rule relating the two lexical entries in (79), cf. Vergnaud and Zubizarreta 1992, p. 596, 601, numbers of examples have been adapted. Adopting this approach enables us to view inalienably possessed nouns to be a kind of anaphoric nominal expressions whose distribution can be accounted for by the principles of binding theory. The fact that inalienable possessed nouns seem to be found in the same environments as simple sig is therefore not surprising. The presupposed (representational) non-identity of anti-reflexive predicates explains why the inalienable reading of hænderne ‘the hands’ in (75) is not available. In other words, the presupposition of (representational) non-identity extends to inalienably possessed objects. Since the anti-reflexive meaning of stjæle ‘steal’ in (75) presupposes representational non-identity of its arguments it also presupposes the representational non-identity of the subject and the anaphoric possessor argument of the inalienable object noun³⁶.

³⁶ Note that it could be argued that the analysis defended here would lead to the wrong prediction that intensification of the Ø possessor argument anaphor should be possible, see (i).

(i) *Peter stjal Ø egne hænder(ne).
Peter stole own hands

Furthermore, it could also be argued that the analysis proposed here does not (marginally?) grammatical without the intensifier egen ‘own’.

(ii) Peter stjal sine hænder.
Peter stole POSSREFL hands
‘Peter stole his hands.’

One possible answer to these objections might be found in the fact that in the case of possessive reflexives the full paradigm includes three different forms, e.g. Ø (i.e. inalienable possession), sin ‘POSSREFL’, and sin egen ‘POSSREFL own’, in addition to the possessive pronouns hans ‘his’ and hans egen ‘his own’. In a sense, the simple unintensified possessive intensive sin ‘POSSREFL’ can thus be considered the ‘intensified’ version of the Ø possessor argument in inalienable constructions. Another solution to the problems raised above, could potentially be found in the fact that unlike sig ‘REFL’ which is unstressable, the possessive reflexive sin ‘POSSREFL’ can
3.3.2.7 Linking doppelgänger effects and anti-reflexivity

Intensifier-adjunction to simple reflexives can take place in a number of different contexts. In sections 3.3.2.1 and 3.3.2.3 anti-reflexive (containing presuppositions of (representational) non-identity) and “hidden neutral” predicates (which together with background assumptions about the world generate expectations of (representational) non-identity)) were shown to trigger intensification of simple reflexives. In section 3.3.2.5 contrastive contexts were identified as another trigger of intensification of simple sig with neutral predicates. In this section a number of other contexts triggering intensification of simple reflexives with neutral predicates will be discussed, namely wax museum contexts (statue-readings), qua-sentences, and strict readings of reflexives in VP-ellipsis constructions. In the following we will show that all these intensification triggering contexts, see (80d(i-iv)), involve some kind of ‘doppelgänger-effects’, i.e. (representational) non-identity of the reflexive and its antecedent.

(80) Complex reflexives (e.g. sig selv):
   a. anti-reflexive predicates
   b. hidden neutral predicates
   c. contrastive contexts (with neutral predicates)
   d. ‘doppelgänger-effects’ (with neutral predicates):
      (i) statue-readings
      (ii) qua-sentences
      (iii) strict (and sloppy) readings in VP ellipsis

In other words, we argue that all the phenomena in (80a-d) should be given a unified analysis in terms of (representational) non-identity of the reflexive and its antecedent, the only difference being the locus of the presupposition of representational non-identity: with the anti-reflexive predicates (80a) the presuppositions is part of the meaning of the predicate; in the case of the different types of doppelgänger-effects listed in (80b-d), the presupposition comes from the surrounding context or larger discourse.

carry stress on its own without the help of the adnominal intensifier. See section 3.3.6 for more discussion of the link between stressability and adnominal intensification. While the exploration of these issues is highly relevant to the present analysis, space considerations force us to leave this topic for future research.
3.3.2.7.1 Selv as marker of statue-readings

Since Jackendoff’s (1992) paper “Madame Tussaud meets the binding theory” called attention to the fact that names can be used to refer to statues or representations of their normal referents, it has been known that simple and complex reflexives differ in this respect. First consider the instances of locally bound sig and sig selv in (81).

(81) Context: Imagine Bill Clinton visiting the wax museum. He notices a statue of himself with an unshaven face. Since he doesn’t like the look of the statue he takes out a razor and starts to shave it.

a. Bill Clinton, barberede sig.

b. Bill Clinton, barberede sig, selv.

Bill Clinton shaved RELF/REFL self ‘Bill Clinton shaved (himself).’

The sentence with the simple reflexive sig in (81a) can only have the interpretation in which the real Clinton shaves himself (i.e. the real Clinton), see (82a). It cannot have the so-called statue- or doppelgänger-reading, see (82b), in which the real Clinton shaves a statue of Clinton. In contrast, the sentence with the complex reflexive sig selv in (81b) can have both reading (82a) and (82b).37

(82) a. Clinton<real> shaves himself<real>.

b. Clinton<real> shaves himself<statue>.

We argue that this semantic difference between simple/unintensified reflexives and complex/intensified reflexives is a consequence of intensifier-adjunction. As described in chapter 2, adnominal intensification automatically generates a set of alternative referents for the associate of the intensifier. In the case of sig selv it is thus the focus-generated set of alternative semantic values for sig (triggered by adnominal intensification) which gives rise to doppelgänger-effects, i.e. statue-readings in wax-museum contexts. Note that a similar

37 At first glance, the fact that the complex reflexive sig selv can have both readings in (82) may seem to constitute a problem for the analysis presented here. If intensification of sig licenses statue-readings, then why can we have instances of sig selv without statue-readings (e.g. (81b) read as (82a))? We suggest that in these cases the selv-adjunction simply serves other purposes, e.g. contrastive focus, see section 3.3.2.5.
A proposal is found in König & Siemund (1999:48)\textsuperscript{38}. In its unintensified/simple form \textit{sig} behaves as a variable which has to be referentially and representationally identical to its binder. Thus the present approach achieves a (semantically and morphologically) fully compositional analysis of complex reflexives. That is, while the simple reflexive (e.g. Dan. \textit{sig}) has to be corefential (and co-representational) with its antecedent, the complex reflexive (e.g. Dan. \textit{sig selv}) may be either coreferential with its antecedent, or refer to a representation of the antecedent or the referent of the antecedent under a different representation\textsuperscript{39}.

### 3.3.2.7.2. Qua-sentences

The examples in (83) illustrate the motivation for analyzing dobbelgänger-effects in terms of representational identity/non-identity rather than in terms of referential identity.

(83) a. ???*Peter, working as barber, shaved.
    b. Peter, working as barber, shaved himself.

\textsuperscript{38} Discussing similar examples in Dutch, see (i) below, where the complex reflexive \textit{zich zelf} ‘REFL self’ allows statue-reading but the simple reflexive \textit{zich ‘REFL}’ does not, König & Siemund (1999:48) suggest that “What \textit{zelf adds to the meaning of the reflexive is the evoking of alternatives to the value given which is, of course Mary. Since in the context given there is no mention of other people being present, who could be such alternatives, and given that we know that there are many statues of famous people present, one of which represents Mary, there is a tendency to think of the statues as alternatives to the value given, which is therefore interpreted as Mary’s statue rather than Mary herself.”

(i) Context: Mary is famous and walks into Madame Tussaud’s:
    a. \textit{Zie keek in een spiegle en ze zag zich in een hoek staan.} ‘She looked into a mirror and she saw herself standing in a corner.’
    b. \textit{Zie keek in een spiegle en ze zag zichzelf in een hoek staan.} ‘She looked into a mirror and she saw herSELF standing in a corner.’

\textsuperscript{39} In Russian the simple reflexive \textit{sebja ‘REFL}’ allows both coreferential and doppelgänger readings. This appear to be a counter-example to generalization that simple reflexives require coreferentiality while complex reflexives also allow doppelgänger readings. Note, however, that unlike, simple \textit{sig} in Danish, which cannot be stressed, \textit{sebja} is stressable. This difference in stressability may be responsible for the different behavior of these reflexives w.r.t. doppelgänger effects. Russian also has an unstressable simple reflexive, i.e. the suffixal –sja, which behaves like Dan. \textit{sig} in that it has to be both referentially and representationally identical to its antecedent. Russian \textit{sebja} is thus more similar to German \textit{sich} which also allow both coreferential and doppelgänger readings, than Danish \textit{sig}. See section 3.3.6 for more discussion of the link between stressability, intensification and ‘doppelgänger’ effects.
Imagine a context where a group of soldiers are lost in a forest for weeks. In order to maintain a certain level of hygiene the platoon leader picks Peter to function as camp barber and immediately orders him to shave everybody in the camp including himself. In this context, (83b) is clearly preferred over (83a). Similarly, in the corresponding Danish sentence in (84b) the complex reflexive sig selv is much better than the simple reflexive sig in (84a).

(84) a. Peter, i egenskab af barber, barberede sig.
   Peter in quality of barber shaved REFL sig.
   ‘Peter, qua barber, shaved.’

b. Peter, i egenskab af barber, barberede sig selv.
   Peter in quality of barber shaved REFL self sig selv.
   ‘Peter, qua barber, shaved himself.’

Now, in all the sentences in (83a-b) and (84a-b) there is clearly referential identity between the antecedent Peter and the reflexive pronoun. The qua-sentences thus differ from the statue-reading sentences, discussed in the previous section, where the relation between reflexive and antecedent does not involve referential identity but rather a relation between a real person (the referent of the antecedent) and a statue of this person (the referent of the reflexive). So if the doppelgänger-effect is defined as involving lack of referential identity between antecedent and reflexive (as in the case of (82b)) then the mandatory complex reflexive in qua-sentences would not qualify as a doppelgänger-effect. Hence, we would expect (83a) and the corresponding sentence with simple sig in (83c) to be ok. This however, is clearly not the case. Furthermore, at an intuitive level, the sentences in (83b) and (84b) are clearly felt to involve some kind of doppelgänger of Peter. That is, the individual Peter is perceived of as occupying two roles at the same time. On the one hand, he is performing the duty of squad barber. On the other, he is the object of the shaving efforts of the squad barber. In other words, Peter is perceived as appearing in two different formal roles or representations. So rather than involving both referential and representational non-identity of the arguments of the predicate (as was the case of statue-reading in wax museum contexts) qua-sentences involve only
representational non-identity. The referents of reflexive and antecedents are the same in (83b) and (84b), i.e. the individual Peter, but he appears under different representations. In this respect, the qua-sentences are very similar to the sentences with anti-reflexive predicates discussed in section 3.3.2.1, e.g. (50b) repeated here as (85).

(85)  
\[
\text{Henry IV efterfulgte } \ast \text{sig / sig selv.} \\
\text{Henry IV succeeded REFL / REFL self} \\
\text{‘Peter succeeded himself (as king of England).’}
\]

Strictly speaking the complex reflexive \textit{sig selv} and the antecedent \textit{Henry IV} refer to the same individual in the world. However, as discussed in section 3.3.2.1 the only way to make sense of such an utterance would be to assume that reflexive and antecedent refer to different representations of the same individual, i.e. in this case Henry IV himself vs. Henry IV appearing disguised as the crown prince after feigning his own death. Analyzed in this way, anti-reflexivity (85), statue-readings (82b), qua-sentences (83b, and 84b), can all be said to involve representational non-identity. In the case of anti-reflexive predicates, it is the meaning of the predicate which presupposes representational non-identity. Since both statue-readings and qua-sentences can be constructed with semantically neutral predicates (e.g. \textit{barbere} ‘shave’ in (82) and (83-84)) the representational non-identity cannot have its source in the predicate in these cases. As discussed above, in the case of statue-readings, representational non-identity is motivated by the wax-museum context, or similar contexts involving an individual and a representation (i.e. statue, painting, picture, photo, tape-recording, video-recording\textsuperscript{40}, etc.) of this individual. In the case of qua-sentences, the representational non-identity is introduced by the word \textit{qua} itself, or one of its equivalents, e.g. \textit{working as}, etc. In brief, anti-reflexivity, statue-readings, and qua-sentences all involve representational non-identity, also referred to here as the ‘doppelgänger-effect’, albeit from different sources. Introducing the notion of representational identity thus makes it possible to arrive at a unified
analysis of these three phenomena which have hitherto been considered to be unrelated. In the following section we argue that this analysis should also be extended to another phenomenon involving complex reflexives, i.e. the choice between strict and sloppy reading of reflexives in VP-ellipsis constructions.

3.3.2.7.3 **Strict readings of reflexives in VP-ellipsis**

In this section we argue that the strict identity reading of reflexives in VP-ellipsis constructions is due to doppelgänger-effects, i.e. it involves representational non-identity. The example in (86) illustrate the difference between simple and complex reflexives with respect to the availability of strict and sloppy reading in ellipsis constructions.

(86) a. Peter vaskede sig og det gjorde Hans også. (only sloppy)
   Peter washed REFL and it did Hans also
   ‘Peter washed (himself) and so did Peter.’

   b. Peter vaskede sig selv og det gjorde Hans også. (strict and sloppy)
   Peter washed REFL self and it did Hans also
   ‘Peter washed himself and so did Peter.’

Note that the same paradigm is found in English, see (87).

(87) a. Peter washed Ø and so did Hans. (only sloppy)
   b. Peter washed Ø himself and so did Hans. (both sloppy and strict)

As shown in (86) the simple reflexive sig can only be given a sloppy reading while the complex reflexive sig selv can have both sloppy and strict readings. The sentences in (86) both involve two propositions the first being expressed by the sentences Peter vaskede sig in (86a) and Peter vaskede sig selv in (86b) and the second being expressed by the same sentence, i.e. og det gjorde Hans også, in both cases. The first proposition in both (86a) and (86a) involve referential identity of the arguments of the verb wash, they differ with respect to representational identity. The first conjoint in (86a), i.e. Peter vaskede sig, expresses a self-washing activity. In contrast due to the presence of the intensified selv ‘self’, the first conjoint

---

40 See Rooryck and van den Wyngaerd (1999) for a number of interesting examples in Dutch.
in (86b), i.e. *Peter vaskede sig selv*, implies that Peter washed somebody and that this somebody happened to be Peter. In this respect, the first conjoint in (86b) is similar to a qua-sentence, i.e. it involves a case of accidental identity of two participants in an activity. That is, in both (86b) Peter washes/shaves somebody who just happens to be himself. In other words, Peter is performing a shaving/washing action on his doppelgänger, i.e. a representation of himself. Hence, the necessary presence of the intensifier *selv*.

It has been claimed that long-distance *sig* has both strict and sloppy readings, see (88).

\[(88) \quad \text{Peter asked nurse-the wash REFL and it did Hans also} \]
\[\text{‘Peter asked the nurse to wash himself, and so did Hans.’}\]

Reliable data on the availability of strict and sloppy readings of LD-*sig* is difficult to come by. Although (88) has been claimed to be ok with a strict reading of *sig*, it appears to me that (88) can only felicitously be given a sloppy identity reading in an out-of-the-blue context. Indeed if asked to make-up a context for (88) most informants assume a scenario in which Peter and Hans are patients in the same ward in a hospital who both ask the nurse to washes themselves. So far none of the informants that I have consulted provides a context in which Peter is the only patient and Hans is a relative who happens to be visiting Peter and who out of concern for his welfare asks the nurse to wash Peter.

Furthermore, if forced to provide a sentence with a strict reading, then most speakers prefer the sentence in (89) with the pronoun *ham* ‘him’ instead of the reflexive.

\[(89) \quad \text{Peter asked nurse-the wash REFL and it did Hans also} \]
\[\text{‘Peter asked the nurse to wash himself, and so did Hans.’}\]

In other words, there is no need to force long-distance reflexives to have strict readings since exactly in those contexts pronouns (which can always have strict readings) are allowed (and, for most speakers, preferred over reflexives).
Based on the above discussion of reflexives in VP-ellipsis constructions we conclude that the availability of strict readings of reflexives is an instance of the doppelgänger-effect (i.e. (representational) non-identity) triggering adnominal intensification of the simple reflexive sig.

### 3.3.2.8 Complex reflexives and distributivity

Complex reflexives have sometimes been claimed to disambiguate in favor of distributive readings, see (90a) vs. (90b).

(90)  

<table>
<thead>
<tr>
<th>Variant</th>
<th>Example</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Soldaterne forsvarede sig.</td>
<td>(collective/distributive)</td>
</tr>
<tr>
<td></td>
<td>soldiers-the defended REFL</td>
<td>‘The soldiers defended themselves.’</td>
</tr>
</tbody>
</table>

b. Soldaterne forsvarede sig selv.  (distributive) |

| soldiers-the defended REFL self |
| ‘The soldiers defended themselves.’ |

However, in a contrastive context in which the soldiers as a group are contrasted with another group of individuals, the collective reading is also possible with complex reflexives, compare (91b) and (91b).

(91)  

<table>
<thead>
<tr>
<th>Variant</th>
<th>Example</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>(?)Soldaterne forsvarede sig, men overladte civil befolkningen til fjenden.</td>
<td></td>
</tr>
<tr>
<td>soldiers-the defended REFL but left civil population to enemy-the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘The soldiers defended but left the civilians to the enemy.’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b. Soldaterne forsvarede sig selv, men overladte civil befolkningen til fjenden.  |

| soldiers-the defended REFL self but left civil population to enemy-the |
| ‘The soldiers defended themselves but left the civilians to the enemy.’ |

The fact that the sentence in (91a) is slightly odd without the intensifier selv is due to the explicitly contrastive context which calls for intensification of the reflexive. The sentence in (91b) clearly falsifies the claim that the complex reflexive sig selv must have a distributive reading, thus refuting the alleged direct link between distributivity and intensification of reflexives.

Furthermore, it seems that in most cases the choice between collective vs. distributive readings of reflexives depends on factors other than intensification of the reflexive. See, for
example, the sentences in (92) which show that the distributive reading can be triggered by predicate meaning.

(92)  

a.  
Soldaterne vaskede sig.  
soldiers-the washed REFL  
‘The soldiers washed (themselves).’  
(distributive)  

b.  
Soldaterne vaskede sig selv.  
soldiers-the washed REFL self  
‘The soldiers washed themselves.’  
(distributive)  

While (90a) the simple reflexive *sig* is readily interpreted as having a collective reading, in (92a) the default reading is the distributive reading. It seems obvious that this difference between (90a) and (92a) follows from the meaning of the predicates. Soldiers are per definition assumed to work together under unified command to achieve a common goal, e.g. to defend or attack someone or something. It is therefore not surprising that in (90a) with the predicate *forsvare ‘defend’* *sig* is most readily given a collective reading. In contrast, the default choice of a distributive reading of *sig* in (92a) follows from the meaning of the grooming verb *vaske ‘wash’*. Under normal assumptions, washing (by showering or sponging) is a self-grooming activity which is performed by each individual on his or her own body. As a consequence, the collective reading of *sig* in (92a) is blocked by the relative difficulty of imagining a plausible scenario in which the soldiers engage in a collective grooming activity and as a result all get washed.

Since the verbs used in (90-92) are all neutral, anti-reflexivity does not interfere with the intensification of reflexives in these examples. The fact that the collective readings of complex reflexives are quite felicitous given the right context, see (91b), shows that, unlike what has been claimed in the literature, intensification of reflexives does not necessarily trigger distributive readings. Furthermore the fact that the choice between distributive and collective readings of reflexives can be shown to vary from predicate to predicate, as in (90a)
vs. (92a), provides additional evidence that intensification of reflexives is not directly linked to distributivity, but depends on other factors, such as, for example, predicate meaning.

3.3.2.9 Summary

In the previous sub-sections of section 3.3.2 we have discussed the behavior of locally bound reflexives occurring as internal arguments of verbal predicates. According to our proposal that binding and intensification constitute separate modules of the grammar we predict the binding behavior of reflexives $\text{sig}$ to follow from principle A as formulated in section 3.2, while intensification of reflexives (i.e. the distribution of the so-called complex reflexive $\text{sig selv}$) should follow from the principles of intensification, i.e. the principle of contrastiveness as formulated in chapter 2. We have shown that this approach to binding and intensification can successfully account for the distribution of simple and complex reflexives found in the contexts summarized in the descriptive generalizations in (93) and (94).

(93) Simple reflexives (e.g. Dan. $\text{sig}$):
   a. Neutral predicates (section 3.3.2.3)
   b. Inherently reflexive predicates (section 3.3.2.2)

(94) Complex reflexives (e.g. Dan. $\text{sig selv}$):
   a. anti-reflexive predicates (section 3.3.2.1)
   b. hidden neutral predicates (section 3.3.2.3)
   c. contrastive contexts (with neutral predicates) (section 3.3.2.5)
   d. doppelgänger-effects (with neutral predicates):
      (iv) statue-readings (section 3.3.2.7.1)
      (v) qua-sentences (section 3.3.2.7.2)
      (vi) strict (and sloppy) readings in VP ellipsis (section 3.3.2.7.3)

In the following sections the distribution of simple and complex reflexives in resultatives (section 3.3.3), ECM constructions (section 3.3.4), and possessive constructions (section 3.3.5) will be argued to be amenable to the same type of explanation. Section 3.3.6 presents a phonological account of the distribution of complex reflexives in prepositional predicates which explains intensification of reflexives with certain PPs a consequence of the inability of
simple reflexives (which behave phonologically like clitics) to carry stress on their own.

Section 3.3.6 also contain discussion of the role of stressability of reflexives with respect to adnominal intensification in other languages (French, and German).

### 3.3.3 Reflexives in resultative constructions

As shown in (95-98), resultatives can behave as either neutral (95), anti-reflexive (96), or inherently reflexive predicates (97-98), depending on the meaning of the words involved (cf. Veraart 1996).

(95) **Neutral resultative construction:**

<table>
<thead>
<tr>
<th>Example</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. <strong>Peter arbejdede sig rig.</strong></td>
<td>Peter worked self/his parents rich.</td>
</tr>
<tr>
<td>b. <strong>Peter arbejdede sine forældre rige.</strong></td>
<td></td>
</tr>
<tr>
<td>c. <strong>Peter arbejdede sig selv rig.</strong></td>
<td>Peter worked REFL/REFL self/his parents rich.</td>
</tr>
</tbody>
</table>

(96) **Anti-reflexive resultative construction:**

<table>
<thead>
<tr>
<th>Example</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. <strong>Peter drak #sig under bordet.</strong></td>
<td></td>
</tr>
<tr>
<td>b. <strong>Peter drak Hans under bordet.</strong></td>
<td></td>
</tr>
<tr>
<td>c. <strong>Peter drak sig selv under bordet.</strong></td>
<td>Peter drank REFL/REFL self/Hans under table-the</td>
</tr>
</tbody>
</table>

‘Peter drank himself/Hans under the table.’

(97) **Inherently reflexive resultative construction:**

<table>
<thead>
<tr>
<th>Example</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. <strong>Peter arbejdede sig svedig.</strong></td>
<td>Peter worked self/his parents sweaty.</td>
</tr>
<tr>
<td>b. <strong>Peter arbejdede sine forældre svedige.</strong></td>
<td></td>
</tr>
<tr>
<td>c. <strong>Peter arbejdede sig selv svedig.</strong></td>
<td>Peter worked REFL/REFL self/his parents sweaty.</td>
</tr>
</tbody>
</table>

41 Unlike its English counterpart, the Danish verb *arbejde* ‘work’ cannot be used as a causative with the meaning ‘make somebody work’, compare (i) and (ii).

(i) **Peter arbejdede sig selv svedig.**

(ii) **Peter arbejdede sine forældre svedige.**

The Danish translation of (i) would necessarily involve a periphrastic causative, e.g. **Peter fik sine ansatte til at arbejde hårdt** ‘Peter got his employees to work hard.’
Notice that the only difference between the sentences in (95) and (97) is the adjective denoting the end result of Peter’s work, i.e. rig ‘rich’ vs. svedig ‘sweaty’. In other words, simply replacing one with the other changes the whole resulative from a neutral (95) to an inherently reflexive (97) or vice versa. Likewise, (96) could change from “anti-reflexive” to “neutral” simply by replacing the phrase under bordet ‘under the table’ with the fuld ‘drunk’. In the analysis proposed here the fact that changing the adjective in (95) and (96) can change the behavior of these resultative constructions can be explained as a change in the presuppositions triggered. The resultative construction drink somebody under the table in (96) is semantically anti-reflexive (or ‘hidden’ neutral) because it triggers the presupposition that the reflexive is representationally non-identical to its antecedent Peter. By changing the phrase under the table to drunk the resultative construction no longer presupposes non-identity of Peter and the reflexive. Hence the neutral behavior shown in (96). In other words (95) and (97) are structurally identical, but differ semantically with respect to presupposed (representational) non-identity of reflexive and antecedent. Unlike purely syntactic accounts of binding, which have difficulties accounting for the different distribution of simple and complex reflexives in such cases, the account adnominal intensification proposed here is sensitive to semantic and pragmatic factors (i.e. presupposed representational non-identity) and, as a result, faces no such difficulties.

Unless resultatives are analyzed as complex predicates these examples constitute a serious challenge for predicate-centered theories of binding like Reinhart & Reuland (1993). However, in the nominal account of binding proposed here nothing hinges on whether or not
resultatives are complex predicates. Indeed, since binding and intensification are independent of each other, binding theory has nothing to say about the distribution of the intensifier selv ‘self’ which falls under the contrastiveness principle discussed in chapter 2.

3.3.4 Reflexives in ECM constructions

As shown in (99-100), ECM constructions can behave as either neutral, see (99), or anti-reflexives predicates, see (100), depending on the meaning of the words involved.

(99) Neutral ECM construction:

a. Peter anså sig for at være intelligent.

b. Peter anså sine forældre for at være intelligente.

c. Peter anså sig selv for at være intelligent.

Peter considered REFL/REFL self/his parents for to be intelligent
‘Peter considered himself/his parents to be intelligent.’

(100) ‘Hidden’ utral ECM construction:

a. Peter anså #sig for at være død.

b. Peter anså sine forældre for at være døde.

c. Peter anså sig selv for at være død.

Peter considered REFL/REFL self/his parents for to be dead
‘Peter considered himself/his parents to be dead.’

Considering somebody to be intelligent is a neutral activity which can be directed and oneself as well as others, see (99). In contrast, considering somebody to be dead cannot be directed at oneself, at least not in the literal sense. The only way to save such a sentence would be to assume the existence of some kind of doppelgänger, e.g. Peter’s soul (liberated from his body at death), Peter’s ghost roaming around after the physical death of Peter, etc., who considers the physical Peter to be deceased. Hence (100) behaves as an anti-reflexive or ‘hidden’ neutral with respect to intensification of reflexives. That is, the meaning of the ECM construction in (100) triggers the presupposition that Peter and the individual he considers to be dead are (representationally) non-identical. It is this presupposition, which is present in (100) but not in (99), which triggers adnominal intensification of the simple reflexive sig.
Once again, binding and intensification are independent of each other. Binding of $\text{sig}$ falls under principle A which is satisfied in both (99) and (100) since the reflexive are bound by a subject (Peter) inside the minimal tensed clause. The distribution of $\text{selv} \ ‘self' on the other hand, falls under the contrastiveness principles of the module of intensification and is thus directly sensitive to the presuppositions of identity triggered by the meaning of the words involved in the construction (e.g. $\text{intelligent} \ ‘intelligent', \ vs. \ \text{død} \ ‘dead') and background encyclopedic knowledge$\textsuperscript{42}.

Together with resultative constructions (discussed in section 3.3.3 above) and possessive construction (discussed in the following section), ECM constructions constitute potentially problematic cases for predicate-based approaches to binding (e.g. Reinhart and Reuland (1993)). Since the notions of anti-reflexivity, neutrality and inherent reflexivity invoked in the analysis proposed here do not rely on the notion of co-argumenthood but rather on the presence/absence of presuppositions of (representational) (non-)identity of reflexive and antecedent it does not run into these problems.

### 3.3.5 Complex reflexives and pronouns in possessor position

In this section we show that the distribution of simple and complex possessive reflexives, e.g. $\text{sin} \ ‘\text{POSSREFL}'$ and $\text{sin egen} \ ‘\text{POSSREFL}'$, follow the same general pattern as the distribution of reflexives in argument position (i.e. $\text{sig}$ and $\text{sig selv}$). That is, the binding

$\textsuperscript{42}$ Note that the same doppelgänger-effect discussed in section 3.3.2 above can also be found in ECM-construction, see (i). (i) a. $\text{Peter så sig/sig selv danse i spejlet.}$  
$\text{Peter saw REFL/REFL self dance in mirror-the}$  
$\text{‘Peter saw himself dance in the mirror.’}$  

b. $\text{Peter så #sig/sig selv danse på video-optagelsen.}$  
$\text{Peter saw REFL/REFL self dance on video-recording-the}$  
$\text{‘Peter saw himself dance in the video-recording.’}$  

According to Rooryck and van den Wyngaerd (1999), wherefrom these examples are adapted, the difference between (ia) which allow simple $\text{sig}$ and (ib) which doesn’t should be explained in terms of time-slice identity. In our analysis the difference has to be due to representational non-identity. Somehow the contemporary reflection of a person in a mirror comes closer to full identity than the digital representation of a video-recording (which thus trigger a presupposition of representational non-identity).
behavior of possessive reflexives (e.g. Dan. *sin* ‘POSSREFL’) are accounted for by principle A as formulated in section 3.2, and the distribution of the intensifier *egen* ‘own’, follows the same principle of contrastiveness as its suppletive variant *selv* ‘self’. One of the main strengths of the analysis proposed here is thus that it can be straightforwardly extended to intensified possessive reflexives, which constitute a major problem for most predicate-based accounts, e.g. Reinhart & Reuland (1993).

The Danish system of nominal expressions in possessor position is given in (101). Unlike English, Danish has a possessive reflexive, i.e. *sin* ‘POSSREFL/his/her/one’s’, in addition to the possessive pronouns *hans* ‘his’.

(101) Danish nominal expressions in possessor position:

<table>
<thead>
<tr>
<th>Simple/unintensified</th>
<th>Complex/intensified</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Reflexive</td>
<td><em>sin</em> ‘his/her/one’s’</td>
</tr>
<tr>
<td>b. Pronoun</td>
<td><em>hans</em> ‘his’</td>
</tr>
<tr>
<td>c. DP</td>
<td><em>kongens</em> ‘the king’s’</td>
</tr>
</tbody>
</table>

Except for the suppletive form of the intensifier, see (103), and the different case forms (i.e. assuming *sin* ‘POSSREFL’ to be the genitive form of *sig* ‘REFL’) this system is exactly the same as the ones found in argument position, compare (101) and (102).

(102) Danish nominal expressions in argument position:

<table>
<thead>
<tr>
<th>Simple/unintensified</th>
<th>Complex/intensified</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Reflexive</td>
<td><em>sig</em> ‘REFL’</td>
</tr>
<tr>
<td>b. Pronoun</td>
<td><em>ham</em> ‘him’</td>
</tr>
<tr>
<td>c. DP</td>
<td><em>kongen</em> ‘the king’</td>
</tr>
</tbody>
</table>

---

43 The full paradigm of possessive reflexives and pronouns can be found in Appendix II.
(103)
Suppletive variants of intensifier:

a. Argument position: selv ‘himself’
b. Possessor position: egen ‘own’

Like their argument position counterparts (i.e. sig ‘him, her, one’ and ham ‘him’) the
distribution of sin and hans are constrained by the principles A and B of the binding theory.

Sin (like sig) is a reflexive and must be bound by a subject in a local domain and hans ‘his’
(like ham ‘him’) is a pronoun and must be free in a local domain, i.e. the minimal tensed
clause, see (104a-d).

(104) a. Peter sagde at John vaskede sin i/k hans i/z tegnebog.
    ‘Peter said that John washed POSSREFL/ his wallet.’
b. Peter sagde at John vaskede sin i/k egen / hans i/z egen tegnebog.
    ‘Peter said that John vaskede POSSREFL own/ his own wallet.’
c. Peter sagde at John stjal sin i/k hans i/z tegnebog.
    ‘Peter said that John stole POSSREFL/ his wallet.’
d. Peter sagde at John stjal sin i/k egen / hans i/z egen tegnebog.
    ‘Peter said that John stole POSSREFL own/ his own wallet.’

The sentences in (105) illustrate LD-binding of the possessive reflexive sin follow the same
pattern as LD-binding of sig ‘REFL’, i.e. its antecedent can be found outside infinitival clauses.

(109) a. Peter bad Hans vaske sin i/k hund.
    Peter asked Hans wash POSSREFL dog
    ‘Peter, asked Hans, to wash his dog.’

44 The existence of synonymous words egenrisiko ‘own-risk’ and selvrisiko ‘self-risk’ can be construed as evidence
for the hypothesis that they are suppletive variants. Even when used as a noun the words selv ‘self’ and egen ‘own’
can be found to be interchangeable, see (i) which is from J.P. Jacobsen (1880) Niels Lyhne, p. 65.

(i) Hvilken forunderlig, forjætningsfuld Tid var det ikke, hvor sælsomt ikke Øren at høre sin Sjæls
    utydelige, londomsfulde Hvisken klinge frem i Virkelighedens Luft, som vildt udfordrende
    Lurtoner, som Brag af Kølleslag paa Tempelmure, som Hvin af Davidsstene paa Flugt mod
    Goliathspander og som sejerssikker Fanfare. Det var som at høre sig selv tale i fremmede
    Tunger, med fremmed Klarhed og fremmed Magt om det, der var Ens dybeste, inderste eget.
    ‘[...] It was like hearing oneself speak in foreign tongues, with foreign clarity and foreign
    power about that which was one’s deepest, innermost own.’

In the example in (i) the possessive intensifier eget ‘own’ is used in a context in which one might just as well find
the intensifier selv ‘self’, see (ii)

(ii) [...] der var Ens dybeste, inderste selv.
    [...] which was one’s deepest innermost self
    [...] which was one’s deepest innermost self.’

Although, selv and egen are in overlapping distribution there are still subtle meaning differences. However, rather
than taking the origin of these to be lexical, we assume them to be parasitic on the possessive relation itself.
b.  *Peter lod forældrene sove i sin egen seng mens han selv sov på sofaen is stuen.*

   Peter let parents-the sleep in POSSREFL own bed while he self slept on sofa-the in living room-the
   ‘Peter let his parents sleep in his own bed while he himself slept on the sofa in the living room.’

Though LD-binding of the simple possessive reflexive *sin* is more frequently found, LD-binding of intensified possessive reflexives is by no means excluded, i.e. given an appropriate context that satisfies the contrastiveness principle of adnominal intensification, see (105b). That is the adjunction of the intensifier *egen* ‘own’ does not affect the LD-potential of the possessive reflexive *sin*. In other words, just like in the case of *sig*, see section 3.3.1, intensification of possessive reflexives does not directly affect locality constraints\(^{45}\).

The examples in (106-108) illustrate that Danish possessive reflexives *sin* and *sin egen* exhibit the same overall distributional pattern as the argument reflexives *sig* and *sig selv* with respect to “neutral”, “anti-reflexive” and “inherently reflexive” constructions/sentences\(^{46}\).

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\(^{45}\) The same independence of intensification and locality constraints can be found with the English possessives *his* and *his own*. Contrary to what has often been claimed, the complex possessive *his own* is not an anaphor which must be locally bound, but rather an intensified pronominal element which may be bound either locally or non-locally, see (i).

(i)  
   a. *The Housing Association* are encouraging people, *ez* to buy their\(_{e}z\) houses.
   b. *The Housing Association* are encouraging people, *ez* to buy their\(_{e}z\) own houses.
   c. *The Housing developers* were encouraging people, *ez* to buy their\(_{e}z\) own houses.

   ((a-b) from Quirk et al. (1985:363), (c) from Zribi-Hertz (1995:361))

The minimal pair (ia,b) has been interpreted as evidence in favor of assuming that adding *own* to the possessive pronoun gives rise to an anaphoric element which must be locally bound. However, as shown by Zribi-Hertz (1995), changing the matrix subject from *housing association* to *housing developers* gives rise to a sentence in which long-distance binding of *his own* is pragmatically more acceptable more, see (ic). The importance of this example in the context of this paper is that it provides further evidence in favor of the proposal that binding and intensification belong to different modules of the grammar. At first glance intensifier-adjunction may seem to have changed the possessive pronoun *his* to an anaphor *his own*. But when more attention is paid to the pragmatic context of the sentences, it becomes clear that *his own* is not an anaphor but an intensified possessive pronoun which is decomposable into *his* and *own* (the suppletive form of the intensifier *himself* whose distribution is controlled by the principles of the module of intensification). The minimal pair (ib,c) also shows that the distribution of the intensifier *own* is sensitive to semantic/pragmatic factors. See also chapter 5 for more discussion of the analysis of possessives in Modern English.

\(^{46}\) Examples involving 1st person possessives can also be used to illustrate that intensifier adjunction is triggered by something else than a need for disambiguation, e.g.:

(i)  *Je suis *mon/mon propre ennemi.  ‘I am my own enemy.’  (Fr.)*
(ii)  *I am *my/my own enemy.
(iii)  *Jeg er *min/min egen fjende.  ‘I am my own enemy.’  (Dan.)*
(iv)  *Wo shi *wo / wo ziji de di-ren.  ‘I am my own enemy.’  (Ch.)*
(106) **“Neutral” constructions:**

a. \( \text{Peter} \), vasker sin /sin egen / John’s tegnebog.

   Peter washes POSREF /POSREF own/ John’s wallet.

   ‘Peter washes his / his own / John’s wallet.’

b. \( \text{Peter} \) hader sin /sin egen / John’s mor.

   Peter hates POSREF /POSREF own/ John’s mother.

   ‘Peter hates his / his own / John’s mother.’

(107) **“Anti-reflexive” constructions:**

a. \( \text{Peter} \) er *sin /sin egen / John’s fjende.

   Peter is *POSREF /POSREFL own/ John’s enemy.

   ‘Peter is his / his own / his enemy.’

b. \( \text{Peter} \) stjal *??sin /sin egen / John’s tegnebog.

   Peter stole *??POSREF/ POSSREF own / John’s wallet.

   ‘Peter stole his / his own / John’s wallet.’

(108) **“Inherently reflexive” constructions:**

a. \( \text{Han} \) var ved at gaa ud af sit /?* sit eget/*Peters gode skind af glæde.

   he was about to go out of POSREF/?*POSREFL own/Peter’s good skin of happiness

   ‘He nearly jumped out of his good skin of sheer happiness.’

b. \( \text{Han} \) hyttede sit /??sit eget /*Peters skin. (cont. bet. a/b)

   he saved POSREF/ ??POSREF own/*Peter’s skin

   ‘He saved his own life.’

The importance of the above examples involving Danish reflexive possessives *sin* and *sin egen* is that they show that disambiguation is not the prime motivation for intensifier adjunction to possessives. In sentences like the ones in (104) with two potential antecedent for the possessive *sin* only the local antecedent can bind *sin*. These sentences (unlike the English translations thereof) are not ambiguous; *sin* can only have *John* (the local subject) as its antecedent since it is an anaphor which has to abide by principle A and *hans*, being a pronoun which has to be free in its local domain, can only have *Peter* as its antecedent. Since it cannot be the need to disambiguate between multiple potential antecedents which motivates the presence of *egen* ‘own’ on *sin* in the “anti-reflexive” constructions in (107) it has to be

See chapter 4 for more discussion of 1st and 2nd person pronouns and reflexives.

47 Note that adding the particle *back* saves the sentences in (ia), see (ib):

(i) a. *He, stole his, wallet.* (simple predicate: steal __)

b. He, stole his, wallet back. (complex predicate: steal __ back)
something else\textsuperscript{48}. As the contrast between (104a,b), (106) and (104c,d), (107) shows it is the semantic/pragmatic make-up of the sentence (i.e. the presupposed or expected (representational) non-identity of the reflexive and its antecedent\textsuperscript{49}) which triggers intensifier-adjunction to  sin. Based on the meaning of the predicates  \textit{vaske} ‘wash’ and \textit{stjæle} ‘steal’ and world knowledge, native speakers know that for a given individual \(x\), the proposition \(x \text{ washes } x\)'s wallet\) is pragmatically OK. The proposition \(x \text{ steals } x\)'s wallet\), however, is pragmatically odd; stealing is per definition an “anti-reflexive” activity. The meaning of the verb \(\text{steal}\) presupposes that the stealer does not originally possess the stealee. Indeed, anti-reflexivity, i.e. presupposed representational non-identity of the stealer and the original owner of the stolen goods, seems to be an integral part of the meaning of the predicate \textit{stjæle} ‘steal’, i.e. given normal circumstance the expectation is that people would not steal their own things. The examples in (108) show that Danish also have “inherently reflexive” possessive constructions (usually of idiomatic nature) which disallow all but the simple unintensified reflexive possessive \(\text{sin}\). We can therefore conclude that the distribution of Danish simple and complex possessives (\(\text{sin}\) and \(\text{sin egen}\)) in “neutral”, “anti-reflexive” and “inherently reflexive” predicates follow the same general pattern as the simple and complex argument reflexives \(\text{sig}\) and \(\text{sig selv}\).

In this section we have shown that the same generalizations hold for both adnominal intensification of reflexives in argument position (e.g. \(\text{sig selv } \text{REFL self}'\)) and adnominal intensification of reflexives in possessor position (e.g. \(\text{sin egen } \text{POSSREFL own}'\)). This constitutes a major obstacle for analyses of binding which are based on the notions of co-

The sentences in (i) thus indicate that some kind of analysis of resultatives as complex predicates is needed.\textsuperscript{48} For the example in (111b) and similar examples an structural i-within-i filter explanation has been proposed, see Vergnaud and Zubizarreta (1992).

\textsuperscript{49} If reflexivity is defined as corefence between co-arguments, then the relation between \textit{sin} and its antecedent \textit{John} in the sentences in (104-108) is not strictly speaking one of reflexivity. “Reflexivity” is here used more loosely to refer to self-directed predicates/constructions in a broader sense.
argumenthood, e.g. Reinhart and Reuland (1993). It seems rather implausible to maintain that the difference between (106a) and (108b) should derive from the a lexical feature (e.g. Reinhart and Reuland’s [±inherently reflexive], or Zribi-Herts’s [±disjoint reference]) distinguishing between the predicate vaske ‘wash’ and the predicate stjæle ‘steal’. The structural relationship between the reflexives (i.e. sin and sin egen) and their antecedent has to be assumed to be the same all the sentences in (106-108). And yet, the sentences differ as to whether they allow the simple possessive reflexive or not. While this difference can be accounted for in terms of focus and presuppositions as illustrated, it seems impossible to account for it in terms of any kind of predicate-centered ‘reanalysis’ or ‘lexical ambiguity’ account which only applies to co-argument binding.

3.3.6 Binding of simple and complex anaphors in PPs and prepositional predicates: phonological factors affecting intensification of reflexives

In this section it will be shown that phonological factors – notably stress placement - interact with the distribution of intensifier-adjunction to the simple reflexive sig. We argue that the focus-based analysis of intensifier-adjunction proposed here stands a better chance of giving a satisfying account of the nature of this interaction between phonology and syntax than competing analyses of complex reflexives.

The rest of this section will be organized as follows. First, in section 3.3.6.1, the clitic-like properties of the simple reflexive sig (e.g. the fact that it cannot be stressed) are illustrated using a number of syntactic tests. Then, in section 3.3.6.2, it is shown that the

---

50 It would potentially be interesting to test possessive reflexives for doppelgänger-effects (e.g. statue-readings in wax-museum context, qua-sentences, etc.). We would expect sin vs. sin egen to display the same differences with respect to representational non-identity as sig and sig selv. Due to space limitations we leave this topic for future research.

idiosyncrasies of the distribution of simple and complex reflexives in prepositional predicates follows from *sig’s* status as a phonologically ‘light’ clitic (cf. Zwicky 1977). Finally in section 3.3.6.3 stressability of reflexives will be discussed as a potential explanation of cross-linguistic variation in intensification of reflexives\(^\text{52}\).

3.3.6.1. Stressability of reflexives: prosodic uses of *selv = stress carrying element*

In this section a set of syntactic tests are used to show that simple reflexive *sig* is a phonologically ‘light’ clitic-like element which cannot carry word-stress on its own and therefore requires intensifier-adjunction in order to be able carry stress like a full lexical DP. The different behaviors of the simple and complex reflexives in Danish are summarized in (109). Unlike the complex reflexive anaphor *sig selv*, the simple reflexive anaphor *sig* is a clitic that cannot be stressed, used to answer questions, coordinated, clefted, or topicalized.

(109) Comparing simple *sig* and complex *sig selv*:

<table>
<thead>
<tr>
<th>Tests \ expressions</th>
<th><em>sig</em></th>
<th><em>sig selv / DP / ham / ham selv</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Stress</td>
<td>NO</td>
<td>YES (see (110))</td>
</tr>
<tr>
<td>b. Answer to questions</td>
<td>NO</td>
<td>YES (see (111))</td>
</tr>
<tr>
<td>c. Coordination</td>
<td>NO</td>
<td>YES (see (112))</td>
</tr>
<tr>
<td>d. Clefting</td>
<td>NO</td>
<td>YES (see (113))</td>
</tr>
<tr>
<td>e. Topicalization</td>
<td>NO</td>
<td>YES (see (114))</td>
</tr>
</tbody>
</table>

The sentences in (110)-(114) illustrate the differences between *sig* and *sig selv* with respect to the properties in (109)\(^\text{53}\).

(110) **Stress:**

*Peter bad Hans om at vaske*\(^*\)SIG / SIG SELV / KONGEN.*

‘Peter asked Hans about to wash REFL/REFL SELF / KING-the’

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\(^{52}\) Cf. Siemund (2000).

\(^{53}\) The tests in (109) and the examples in (110-4) are based on Jacobowicz (1994) who in turn was inspired by Kayne (1975).
(111) **Answering questions:**

Q: *Hvem vasker Peter?*  
A: *Sig / sig selv / Marie*

Who washes Peter  
REFL/REFL self/Marry  
‘Who does Peter wash?’  
‘*REFL / REFL SELF / Mary’

(112) **Coordination:**

*Peter vaskede barnet og *sig / sig selv / hunden.*

Peter washed child-the and REFL /REFL self /dog-the  
‘Peter washed the child and *REFL / REFL SELF / the dog.’

(113) **Clefts:**

*Det var *sig / sig selv / hunden Peter vaskede.*

It was REFL / REFL self / dog-the Peter washed  
‘It was *REFL / REFL SELF / the dog that Peter washed.’

(114) **Topicalization:**

*Sig / sig selv / hunden vaskede Peter ikke.*

REFL / REFL self / dog-the washed Peter not  
‘*REFL / REFL SELF / the dog Peter didn’t wash.’

Notice that the verbal predicate *vaske* ‘wash’ which is used in the above examples is a semantically neutral predicate which allows the simple reflexive anaphor *sig* as its internal argument, e.g. *Peter vasker sig* ‘Peter washes (himself)’. The mandatory presence of *selv* in these examples thus cannot be due to any semantically “anti-reflexive” nature of the predicate. We therefore conclude that intensification of *sig* in these cases must be prosodically motivated, i.e. it must be due to a need to make the clitic *sig* heavy enough prosodically to receive stress.

In this section, we have established that intensifier-adjunction to *sig* interacts with prosodic factors like stress. Being a phonologically ‘light’ clitic-like element (cf. Zwicky 1977) *sig* cannot carry stress. Therefore, intensifier-adjunction is necessary to make the

---

54 The French reflexive *soi* ‘REFL’, which can both be stressed (i.e. *SOI*) and intensified (i.e *soi-même*), illustrates that inability to be stressed is not a universal property of simple reflexives. German *sich* and Russian *sebja* are also both stressable. In contrast, Russian –*sja* and English Ø-reflexives are both unstressable, just like Danish *sig*.

55 There is one idiomatic expression which contains an instance of stressed, simple/unintensified *sig*, see (i).

(i) *Peter er ikke som alle de andre barn. Han er noget for sig.*  
Peter is not like all the other children he is something for REFL  
‘Peter is not like all the other children. He is something special.’
reflexive behave like a full lexical DP. In the next section we propose that this susceptibility to phonological factors can be used to explain the distribution of complex reflexives in certain types of prepositional predicates.

3.3.6.2. Intensifier-adjunction to reflexives in PPs and the interaction with sentential stress

The main purpose of this section is to show that in addition to semantic factors (i.e. anti-reflexivity and inherent reflexivity defined in terms of presupposition of identity or (representational) non-identity), prosodic factors (i.e. stress-placement) also plays an important role in determining when reflexives must be adnominaly intensified. The claim is that a number of exceptions to the semantic account of intensification of reflexives can be explained as following from special prosodic properties of certain prepositional constructions.

Distributionally, most prepositional predicates in Danish exclude the use of the simple reflexive sig while allowing intensified reflexives and DPs. As shown in (115-7) this generalization holds for prepositional verbs as well as prepositional nouns and adjectives.

(115) Prepositional verbs:
   a. *tale til* ‘speak to’
   b. *pege på* ‘point to/at’
   c. *drømme om* ‘dream about’
   d. *lytte til* ‘listen to’
   e. *sigte på* ‘aim at’
   f. *Hans peger på *sig / sig selv / bilen.*
      ‘Hans points at *Ø / Ø himself / the car.’

At this point we have no account of this fact. Note, however, that some speakers prefer sig selv over stressed SIG in (i).
While prepositional predicates pattern with anti-reflexive predicates distributionally, i.e. with respect to intensifier-adjunction to the simple reflexive sig, they do not necessarily all have anti-reflexive meanings which are logically incompatible (or even implausible) with reflexive scenarios. Since Danish sig ‘REFL’ cannot be stressed, as shown in section 3.3.6.1, we have to look for a language with stressable reflexives to see if the distinction between semantically anti-reflexive and neutral predicates can hold for prepositional predicates. French is such a language, since it has the prosodically strong reflexive soi ‘REFL’ which can host stress on its own. And as shown in (118) and (119), French reflexives in PPs may have both the intensified and the unintensified form depending on the meaning of the predicate, see (118) vs. (119). That is, French prepositional predicates can be classified as either anti-reflexive, neutral or inherently reflexive based on semantic/pragmatic criteria.

(118) **Semantically neutral prepositional predicates (French):**

a. *Personne n’est fier de soi/soi-même/Marie.*
   person NE is proud of REFL/REFL-same/Marie
   ‘Nobody is proud of himself/Marie.’

b. *Personne n’est content de soi/soi-même/Marie.*
   person NE is satisfied of REFL/REFL-same/Marie
   ‘Nobody is happy with himself/Marie.’
Semantically anti-reflexive prepositional predicates (French):

a. Personne n’est jaloux de *soi/soi-même/Marie.
   person NE is jealous of REFL/REFL-same/Marie
   ‘Nobody is jealous of himself/Marie.’

b. Personne ne bavarde avec *soi/soi-même/Marie.
   person NE chats with REFL/REFL-same/Marie
   ‘Nobody is chatting with himself/Marie.’

Semantically inherently reflexive prepositional predicates (French):

Personne n’est hors de soi/*soi-même/*Marie de fureur.
person NE is out of REFL/REFL-same/Marie of fury
‘Nobody is beside REFL/*REFL self /*Mary with rage.’

The predicates être fier de and être content de, in (118), are semantically neutral in that they are compatible with both reflexive and non-reflexive scenarios. In contrast, the predicates être jaloux de and bavarder avec, in (119), are semantically anti-reflexive in that they are compatible only with non-reflexive scenarios and thus trigger intensifier-adjunction to the simple reflexive soi ‘REFL’ ⁵⁶. Finally, the predicate in (120) presuppose identity of its arguments and is thus inherently reflexive.

Since Danish also uses intensifier-adjunction to license reflexive scenarios with predicates whose meaning is logically incompatible (or pragmatically implausible) with reflexive scenarios, as shown in section 3.3.2, one would assume that semantically neutral prepositional predicates corresponding to the French predicates in (118) would allow both simple and complex reflexives. This prediction, however, does not hold. As shown in (121-122), in Danish prepositional predicates, regardless of meaning, need to have a complex reflexive.

Semantically neutral prepositional predicates:

a. Peter er stolt af *sig/sig selv/Marie.
   Peter is proud of REFL/REFL self/Maire
   Peter is proud of himself/Marie.’

b. Peter er tilfreds med *sig/sig selv/Marie.
   Peter is satisfied of REFL/REFL self/Marie
   ‘Peter is happy with himself/Marie.’

⁵⁶ This observation is from Zribi-Hertz (1995) who invokes a [+/-disjoint reference] feature to capture the difference between PPs like fier de ‘proud of’ vs. jaloux de ‘jealous of’.

Semantically anti-reflexive prepositional predicates

a. *Peter er misundelig på *sig/sig selv/Marie.
   Peter is jealous on REFL/REFL self/Maire
   ‘Peter is jealous of himself/Marie.’

b. *Peter sludrer med *sig/sig selv/Marie.
   Peter chats with REFL/REFL self/Marie
   ‘Peter is chatting with himself/Marie.’

Meaning-wise one would expect the predicates 
*vere stolt af ‘be proud of’ and 
tilfreds med
‘satisfied with’ to behave like their French counterparts in (118), but in spite of their “neutral” meanings they still behave distributionally like anti-reflexives as shown in (121a,b). So if it is not the semantic anti-reflexivity of the predicates which triggers selv-adjunction to sig in (121a,b), then what is it? We argue that it is prosodic factors. Simple/unintensified sig is a non-stressable element which needs to cliticize to a prosodically stronger host to receive stress.

The prepositional predicates in (115-117) all have unstressed prepositions. Since the language does not allow such unstressed prepositions to be followed by unstressable clitics, intensification of simple reflexives is necessary to make the reflexive able to carry non-contrastive sentence stress which is required on the complement of such prepositional predicates. Hence, only sig selv and DPs are allowed with the prepositional predicates in (115-117).

As mentioned above, many of the prepositional predicates in Danish are of the type illustrated in (115-117), which, regardless of their meaning, do not allow simple sig. There are, however, a number of prepositional constructions which allow simple sig. They can be divided into those which only allow simple sig, and those which allow both simple and complex reflexives as well as DPs. Let us first consider the prepositional expressions in (123-124).
Prepositional constructions allowing only simple sig:

a. *at være bange af sig*
   to be afraid of REFL
   ‘to be (naturally) timid’

b. *at have en revolver på sig*
   to have a gun on REFL
   ‘to carry a gun (with oneself)’

c. *at bide smerten i sig*
   to bite pain-the in REFL
   ‘to bear the pain without flinching’

d. *at slå fra sig*
   to hit from REFL
   ‘to defend oneself, hit back, fight back’

e. *at bide fra sig*
   to bite from REFL
   ‘(fig) hit back, fight back, give as good as one gets’

f. *at være om sig*
   to be about REFL
   ‘be enterprising, be busy; have an eye for opportunities’

The example sentences in (124) illustrate how the expressions listed in (123) behave, i.e. allowing simple sig, but neither intensified sig selv, nor DPs. The expressions in (129) differ from the prepositional predicates in (115-117) in several ways. First, the meanings of the predicates in (115) are clearly formed compositionally from the meaning of the verb plus the meaning of the preposition. Take for instance, *tale til* ‘speak to’ which is straightforwardly composed of the verb *tale* ‘speak’ plus the preposition *til* ‘to’. As in German and other related languages, many of the predicates of the type illustrated in (115) have alternative forms where the preposition is fused with the verb, e.g. *tiltale* ‘address someone, speak to someone’. In contrast, the predicates in (123) are of a more idiomatic nature. In many cases, the meaning of

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57 Note that out of the 6 predicates in (123), only (123b) has a reflexive (i.e. *oneself*) in the English translation. In all the other cases the Danish reflexive *sig* ‘gets lost in translation’. The fact that *sig* does not need to be translated in these cases indicates that it is most likely non-thematic. See chapter 4 for more discussion of the distinction between thematic and non-thematic reflexives.
the whole expression cannot be deduced compositionally from its component parts, e.g. it is not immediately obvious how (123f) være ‘be’ + om ‘about’ comes to mean ‘be active; have an eye for opportunities’. In other cases, however, the meaning is more transparent, e.g. (123b) have en revoler på sig ‘have a gun on oneself’. Finally, none of the expressions in (123) have variant forms of the tiltale ‘to-speak, address’ vs. tale til ‘speak to, address’ type which, as discussed above, is frequently found with the expressions in (115). That is, compounds such as *omvære ‘about-be’, *frabide ‘from-bite’ are all impossible.

In addition to prepositional constructions allowing only simple sig, Danish also has a series of prepositional expressions which allow simple and complex reflexives as well as DPs, see (125).

(125) Prepositional constructions which allow both simple and complex reflexives as well as full lexical DPs:

a. Peter så en slange bag sig / sig selv /Mary.

‘Peter saw a snake behind himself / Mary’

b. Peter så en slange foran sig / sig selv /Mary.

‘Peter saw a snake in front of himself / Mary’

Notice that the prepositions found in (125) are different from both (115-7) and (123). First of all, they are not part of the verbal/adjectival/nominal predicate but function as locative and directional adverbials. Second, the prepositions involved, e.g. foran ‘in front of’, bag ‘behind’, over ‘over’, etc., all assign theta-roles on their own. In contrast, in the predicates in (115-117) it is the verbal part of the predicates which assign theta-roles while the prepositions merely

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58 In theory it should be possible to find a particle verb like tiltale which behaves as (semantically and distributionally) neutral when combined but as (distributionally) anti-reflexive (while still semantically neutral)
function as case-assigners. As for the expressions in (123) the thematic status of *sig is debatable\(^59\). Even if considered to be thematic, the simple *sig in (123) cannot plausibly be claimed to received a theta-role form the verbal component of the expression. Hence, if the instances of *sig in (123) have a theta-role, it must come from the preposition itself. Finally, in addition to being morphologically more complex, the prepositions in (125) are all prosodically strong enough to carry word stress on their own, and, even more importantly, have to be stressed. As discussed below, this difference in stressability will turn out to be crucial. The distribution of different types of prepositions among the three distributional classes of prepositional predicates is summarized in (126).

(126)  
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<table>
<thead>
<tr>
<th>Prepositions constructions:</th>
<th>Prepositions</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Type (115-117):</td>
<td>*af[-stress] 'of'</td>
</tr>
<tr>
<td>*sig / *sig selv / DP</td>
<td>*om[-stress] 'about'</td>
</tr>
<tr>
<td></td>
<td>*på[-stress] 'on'</td>
</tr>
<tr>
<td></td>
<td>*fra[-stress] 'from'</td>
</tr>
<tr>
<td></td>
<td>*i[-stress] 'in'</td>
</tr>
<tr>
<td></td>
<td>*med[-stress] 'with'</td>
</tr>
<tr>
<td></td>
<td>*for[-stress] 'for', etc.</td>
</tr>
<tr>
<td>b. Type (123):</td>
<td>*af[+stress] 'of'</td>
</tr>
<tr>
<td>*sig / *sig selv / *DP</td>
<td>*om[+stress] 'about'</td>
</tr>
<tr>
<td></td>
<td>*på[+stress] 'on'</td>
</tr>
<tr>
<td></td>
<td>*fra[+stress] 'from'</td>
</tr>
<tr>
<td></td>
<td>*i[+stress] 'in', etc.</td>
</tr>
<tr>
<td>c. Type (125):</td>
<td>*bag[-stress] 'behind'</td>
</tr>
<tr>
<td>*sig / *sig selv / DP</td>
<td>*foran[-stress] 'in front of'</td>
</tr>
<tr>
<td></td>
<td>*over[-stress] 'over', etc.</td>
</tr>
</tbody>
</table>

As shown in (126), the prepositions found in (115-117)/(126a) also appear in well-formed constructions with the simple reflexive *sig (123)/(126b). However, at closer inspection a very important difference between the constructions in (115-117) vs. the constructions in (123) becomes apparent. In the case of the complex predicates in (115-117), non-contrastive sentence stress always falls on the main verb/noun/adjective rather than the preposition, which when separated, due to prosodic factors. However, so far we have not been able to find an example.
is always unstressed, see (127a), where stressed syllables are marked in bold. In contrast, in
the expressions in (123), it is the preposition which is unstressed, thus allowing the reflexive to
be unstressed, see (127b).

(127)  a. **Peter pegede** **på mig.** (type illustrated in (115-7))
      Peter pointed on me
      ‘Peter pointed at me.’

      b. **Jeg havde en revolver** **på mig.** (type illustrated in (123))
      I had a gun on me
      ‘I was carrying a gun.’

The reason why in (127) first person pronoun/reflexive *mig* ‘me’ is used instead of third
person forms, is that *mig* ‘me’ is stressable while *sig* ‘REFL’ is not, thus making it possible to
construct a paradigm as in (127) where the only variable is stress placement. Since we know
from section 3.3.6.1 that *sig* is not stressable and thus has to be adnominally intensified in
order to carry stress, we can now explain some of the differences between the prepositional
constructions in (115-7) vs. (123) as following from the differences in stress-patterns, see
(128) and (129).

(128)  a. **Peter pegede** **på**
      Peter pointed on
      ‘Peter pointed at himself/Marie.’

    b. **ok sig selv**
    a. **sig selv**
    a. **Marie**
      REFL/REFL self/Marie

    c. **ok Marie**
      REFL/REFL self

(129)  a. **Peter havde en revolver** **på**
      Peter had a gun on
      ‘Peter was carrying a gun.’

    b. **sig selv**
    a. **sig selv**
    a. **Marie**
      REFL/REFL self

The unacceptability of (128a) follows directly from the fact that *sig* cannot carry stress on its
own. Hence intensification of *sig* is necessary, as shown in (128b). Furthermore the fact that
simple (unstressed) *sig* is ok in (129a) follows from the fact that in this case the preposition *på*
is stressed, and as a consequence, able to host the clitic *sig*.

———

59 Cf. Vikner (1985) who claim that the *sig* in *bange af sig* ‘be timid’ and similar “inherently reflexive”
While (128a-b) and (129a) can be explained by reference to the stress patterns, the unacceptability of (129b) cannot. In this case, sig selv should be ok. There is no prosodic reason why sig selv should not be allowed here. Based on what the expressions in (123b)/(129) mean we suggest that it is their semantically “inherently reflexive” nature (i.e. the presence of a presupposition of (representational) identity of sig and its antecedent) which is responsible for the unacceptability of (129b). That the expression in (129) is semantically inherently reflexive is confirmed by the unacceptability of (129c). Notice that even with unstressed pà ‘on’ and stressed Marie, (129c) would still be unacceptable. Hence, the unacceptability of (129b) follows from the Constrastiveness Condition on adnominal intensification.

Based on the above examples we conclude that the presence/absence of intensification of sig in prepositional constructions is triggered by either semantic factors, e.g. mandatory absence of intensification in the “inherently reflexive” expressions in (123), (129b), and (131b), or prosodic factors (e.g. mandatory presence of intensification in the distributionally, but not necessarily semantically, “anti-reflexive” expressions in (115-7), (121), (128) and (130).

(130) Semantically neutral expression with stress-determined preposition (-stress):

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Peter tog et billede</td>
<td>*af</td>
</tr>
<tr>
<td>b.</td>
<td>af</td>
<td>sig selv</td>
</tr>
<tr>
<td>c.</td>
<td>af</td>
<td>barnet</td>
</tr>
</tbody>
</table>

Peter took a photo of REFL self/child-the
‘Peter took a photo of himself/the child.’

(131) Semantically inherently reflexive expression:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Peter er bange</td>
<td>af</td>
</tr>
<tr>
<td>b.</td>
<td>*af</td>
<td>sig selv</td>
</tr>
<tr>
<td>c.</td>
<td>*af</td>
<td>barnet</td>
</tr>
</tbody>
</table>

Peter is afraid of REFL
‘Peter is afraid of himself/the child.’

---

prepositional expressions is non-thematic.
In (130-131) stress is marked in bold. Behind each unacceptable example the type of violation is indicated in parenthesis. So far all of the prepositional predicates involving the prepositions listed in (126a-b)\(^{60}\) which allow simple \(\text{sig}\), i.e. (123) and (129), have been (or at least have meanings which can plausibly be argued to be) semantically inherently reflexive\(^{61}\) (i.e. they presuppose the (representational) identity of the referents of \(\text{sig}\) and its antecedent). There are however a small number (/at least one) semantically neutral prepositional predicates involving the prepositions in (126a-b), which allow simple \(\text{sig}\), in addition to \(\text{sig selv}\) and DPs, see (132) where stress is marked in bold and reasons for unacceptability indicated in parenthesis following the example.

(132) Semantic neutral expression with stress-undetermined preposition\(^{62}\):
   a. \(\text{Peter tog tojet}\) \(\text{af}\) \(\text{sig}\) (prosodic)
   b. \(\text{af}\) \(\text{sig}\) (prosodic)
   c. \(\text{af}\) \(\text{sig}\) (prosodic)
   d. \(\text{af}\) \(\text{sig selv}\) (prosodic)
   e. \(\text{af}\) \(\text{sig selv}\) (prosodic)
   f. \(\text{af}\) \(\text{sig selv}\) (prosodic)
   g. \(\text{af}\) \(\text{barnet}\) (prosodic)
   h. \(\text{af}\) \(\text{barnet}\) (prosodic)
   i. \(\text{af}\) \(\text{barnet}\) (prosodic)
   j. \(\text{af}\) \(\text{barnet}\) (prosodic)
   k. \(\text{af}\) \(\text{barnet}\) (prosodic)
   l. \(\text{af}\) \(\text{barnet}\) (prosodic)

Peter took clothes of REFL/REFL self/child-the
‘Peter undressed (himself)/the child.’

In (132) all the logically possible combinations of stress and absence of stress on both the preposition \(\text{af}\) ‘of’ and its complement have been spelled out. Only, three combinations, i.e. (132a,f,j) are acceptable. The rest are unacceptable due to violations of prosodic well-

\(^{60}\) The prepositions listed in (126) also allow simple \(\text{sig}\). But as already mentioned they differ from the ‘short’ prepositions in (126) in many other ways, as will therefore be treated separately below.

\(^{61}\) Or, alternatively, to be deponent/unaccusative verbs which are constructed with non-thematic \(\text{sig}\), see chapter 4, section 4.3.

\(^{62}\) There appear to be very few examples of neutral constructions of this type, all involving \(\text{sig}\) as indirect object.
formedness constraints. The most interesting aspect of these examples is the variable nature of the preposition *af* ‘of’. With the simple reflexive *sig*, it has to be stressed, see (132a) vs. (132b-d). But with *sig selv* or a DP it has to be unstressed, see (132f,j) vs. (132e,g,h,i,k,l). Whether *af* ‘of’ is stressed or not depends on what type of expression follows: *af* ‘of’ is stressed when followed by an unstressable element like *sig*, and stressed when followed by a stressed expression. Since both the complex reflexive *sig selv* and DPs have word-stress, *af* ‘of’ is unstressed in front of these expressions (132f,j). This generalization is further confirmed by the behavior of *af* ‘of’ in the expression in (132) when found with pronominal complements, see (133).

(133)  **Semantically neutral expression with stress-undetermined preposition:**

a. *Sygeplejersken tog tøjet *af* ham.*

b. *af* ham

c. *af* ham

d. nurse-the took clothes of him

‘The nurse undressed him/him.’

The personal pronouns displays a dual behavior with respect to stress. On the one hand they can be unstressed (like simple *sig*). In this case, the preceding preposition *af* ‘of’ must be stressed, see (133a) vs. (133d). On the other hand, they can also carry stress, e.g. when contrastively focused. When that happens, the preposition *af* ‘of’ is stressless, see (133b) vs. (133c). Examples such as the above amply illustrate the fact the absence/presence of stress on the prepositions in (126a-b) vary depending on the following expression.

---

63 The judgments in (132) are based solely on non-contrastive sentence stress. That is, stress triggered by contrastive focus has not been taken into account. In (132g,i,k) stress on the preposition is ok if triggered by contrastive focus, e.g. (i): (i) *Han tog tøjet *af* sig selv, ikke *med* sig selv.*

‘He took clothes-the of REFL self not with REFL self’

He undressed rather than bringing the clothes’

64 The observational that prepositions can be divided in to different groups based on the way they interact with stress is not new. See, for example, Allen et al. (1995:383-385):

‘As far as prepositional stress is concerned, the interaction between the preposition and its complement is of vital importance. Personal pronouns are usually unstressed when they function as prepositional complements, unless they receive contrastive stress. Generally speaking, prepositions are stressed when their complement is unstressed. Otherwise prepositions fall into two groups:'
Now let us return to the prepositions in (126c). As the examples in (134) illustrate these prepositions can also be found in neutral expressions, see also (125).

(134) Neutral predicate with mandatorily stressed preposition:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Han lagde uret</td>
<td><strong>bag</strong> sig</td>
</tr>
<tr>
<td>b.</td>
<td>*bag sig</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>*bag sig</td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td>*bag sig</td>
<td></td>
</tr>
</tbody>
</table>

(i) Group I consists of the following prepositions: ad, af, for, hos, i, med, om, på, til, ved. These are unstressed when their complement is stressed:

<table>
<thead>
<tr>
<th>Stressed预</th>
<th>Unstressed预</th>
</tr>
</thead>
<tbody>
<tr>
<td>fra 'hjustarnet</td>
<td>fra det 'from the lighthouse'</td>
</tr>
<tr>
<td>i 'lommen</td>
<td>i den 'in the pocket'</td>
</tr>
<tr>
<td>med 'hognene</td>
<td>med dem 'with the children'</td>
</tr>
<tr>
<td>på 'bordet</td>
<td>på det 'on the table'</td>
</tr>
<tr>
<td>til 'dg</td>
<td>til 'you'</td>
</tr>
</tbody>
</table>

(ii) Group II consists of the following prepositions: bag, efter, foran, forbi, før, (i)gennem, (i)mod, (i)mellem, inden, indtil, langs, omkring, over (for), siden, uden, under. These are either stressed or unstressed when their complement is stressed:

<table>
<thead>
<tr>
<th>Stressed预</th>
<th>Unstressed预</th>
</tr>
</thead>
<tbody>
<tr>
<td>(')efter 'valget</td>
<td>(')efter det 'after the election'</td>
</tr>
<tr>
<td>(')før 'krigen</td>
<td>(')før den 'before the war'</td>
</tr>
<tr>
<td>(')langs 'vejen</td>
<td>(')langs den 'along the road'</td>
</tr>
<tr>
<td>(')over 'døren</td>
<td>(')over den 'over the door'</td>
</tr>
<tr>
<td>(')uden 'dem</td>
<td>(')uden dem 'without them'</td>
</tr>
</tbody>
</table>

(c) The distance of the complement from the preposition also plays a role for prepositional stress, insofar as a preposition will have at least secondary stress if it is not immediately followed by the complement. The preposition may be separated from its complement in two ways:

(i) Something may intervene between the preposition and the complement, e.g. a coordinated verb phrase whose object is also the prepositional complement:

Jeg lede 'efter og fandt også et egetræsbord.'
‘I looked for and found and oak table.’

(ii) The prepositional complementary be fronted, leaving the preposition ‘stranded’ in final position. This is particularly common when the complement is a pronoun:

‘Det er hende, som jeg ser på.’
‘She is the one I’m looking at.’

[etc...]

65 As expected, the pronoun ham ‘him’ can be both stressed or unstressed after stressed, prosodically heavy (i.e. bi- or poly-moraic) prepositions, see (i).

(i) Neutral expression with mandatorily stressed preposition:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Han lagde uret</td>
<td><strong>bag</strong> ham</td>
</tr>
<tr>
<td>b.</td>
<td>*bag ham</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>*bag ham</td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td>*bag ham</td>
<td></td>
</tr>
</tbody>
</table>

She put watch-the behind him
‘She put the watch behind him/him.’
e. \((\ast)\) **bag** sig selv
f. **bag** sig selv
g. **bag** sig selv
h. **bag** sig selv

i. **bag** barnet

j. **bag** barnet

k. **bag** barnet

l. **bag** barnet

he put watch-the behind REFL/REFL self/child-the

‘The put the watch behind himself/the child.’

The examples in (135) illustrate these prepositions can also be found with inherently reflexive expressions.

(135)\(^{66}\) Semantically inherently reflexive construction with mandatorily stressed preposition:

a. *Hun kunne ikke lægge det **bag** sig.*

b. *‘bag sig selv.*

c. *‘bag barnet.*

she could not put it behind REFL/REFL self/child-the

‘She couldn’t leave it behind/she couldn’t put it behind her(self).’

The unacceptability of (135b-c) must be due to the inherently reflexive semantics of the expression *lægge noget bag __* ‘put something behind ___’ rather than the prosodic properties of the preposition **bag** ‘behind’.

Unlike the preposition *af* ‘of’ in the neutral prepositional expression *tage tøjet af ___* ‘take clothes-the of ___’ illustrated in (132), the preposition **bag** ‘behind’ in the neutral expression *lægge uret bag __* ‘put watch-the behind ___’ in (134) and the inherently reflexive predicate in (135) cannot be completely destressed, see (134f,j) vs. (132f,j). We attribute this difference between the prepositions in (126a-b) and (126c) to a difference in syllabic/moraic structure. The prepositions in (126a-b) are all mono-syllabic expressions with the syllable structure (C)(C)V, which means that they are all mono-moraic. In contrast, the

\(^{66}\) Notice that the English expression *put something behind ___* (with the meaning ‘forget’) is also inherently reflexive, see (i): (i) *Peter couldn’t put it behind him/*him/*himself/*Mary.*

See chapter 5 for more discussion of such expressions in English.
prepositions in (126c) are bi- or even poly-syllabic with the minimal structure (C)V(C), which means that they are bi- or poly-moraic, see (136).

(136) Stress-underspecified prepositions vs. Lexically stressed prepositions

<table>
<thead>
<tr>
<th>a. Syllabic structure</th>
<th>CV</th>
<th>(C)V(C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Moras</td>
<td>1</td>
<td>2 or more</td>
</tr>
<tr>
<td>c. Qualify as phonological word</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>d. Examples</td>
<td>(126a-b)</td>
<td>(126c)</td>
</tr>
<tr>
<td>e. Stress</td>
<td>- can be stressed or unstressed depending on the following expression</td>
<td>- always have some degree of stress regardless of what follows</td>
</tr>
</tbody>
</table>

The behavior of different types of prepositional predicates discussed above is summarized in the table in (137).

(137) Prepositional predicates:

<table>
<thead>
<tr>
<th>Type</th>
<th>(i)</th>
<th>(ii)</th>
<th>(iii)</th>
<th>(iv)</th>
<th>(v)</th>
<th>(vi)</th>
<th>(vii)</th>
<th>(viii)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I (a)</td>
<td>anti-ref.</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>*sig/sig selv/DP</td>
<td>prosody (semantic)</td>
<td>af, på</td>
<td>122</td>
</tr>
<tr>
<td>I (b)</td>
<td>n/hidd.n.</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>*sig/sig selv/DP</td>
<td>prosody</td>
<td>af, på</td>
<td>121</td>
</tr>
<tr>
<td>I (c)</td>
<td>inh. ref.</td>
<td>-</td>
<td>(+/-)</td>
<td>-</td>
<td>*sig/sig selv/DP</td>
<td>prosody</td>
<td>af</td>
<td>138</td>
</tr>
<tr>
<td>II (a)</td>
<td>inh (+th)</td>
<td>-</td>
<td>+</td>
<td>undersp.</td>
<td>sig/<em>sig selv</em>/DP</td>
<td>semantic</td>
<td>af, på</td>
<td>123b</td>
</tr>
<tr>
<td>II (b)</td>
<td>neut.</td>
<td>-</td>
<td>+</td>
<td>undersp.</td>
<td>sig/<em>sig selv</em>/DP</td>
<td>semantic</td>
<td>af</td>
<td>132</td>
</tr>
<tr>
<td>III (a)</td>
<td>neut.</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>sig/sig selv/DP</td>
<td>semantic</td>
<td>bag, foran</td>
<td>134</td>
</tr>
<tr>
<td>III (b)</td>
<td>inh. ref.</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>sig/<em>sig selv</em>/DP</td>
<td>semantic</td>
<td>bag, foran</td>
<td>135</td>
</tr>
</tbody>
</table>

As shown in (137) we divide prepositional predicates into three types depending on whether or not the preposition is stressed. Predicates of type I, e.g. (115-7), have prepositions which are always unstressed. Semantically these predicates can be either anti-reflexive (sub-type Ia), neutral (sub-type Ib), or inherently reflexive (sub-type Ic). Examples of anti-reflexive and neutral predicates of this types were given in (122) and (121) respectively. Inherently reflexive prepositional constructions of type (137(Ic)) are illustrated in (138).

67 The reason why the prepositions af, pä, etc. ‘of, on, etc.’ are always unstressed in I(a-c) but variable in II(a-b) is still not entirely clear. At this point we simply assume that the non-contrastive stress pattern of the expressions of type I require unstressed af, pä, etc. ‘of, on, etc.’. We leave the question why this should be the case for further research.
The French example (due to Zribi-Hertz (1995)) in (139) (≈(120)), shows that the stressable reflexive soi ‘REFL’ can, and must (due to semantic constraints, i.e. meaning of predicate plus contrastiveness condition on adnominal intensification) be unintensified in the semantically inherently reflexive construction être hors de __ de joie ‘be beside __ with happiness’.

(139)  
Pierre est hors soi/*soi-même/*Marie de joie.  (see also (126))

‘Pierre is beside REFL/REFL-same/Marie of joy

As indicated in (137) column (vi) the presence of selv is mandatory with neutral and even with inherently reflexive predicates. These examples thus clearly show that prosodic factors can override semantic constraints. In (138) the Contrastiveness Condition on adnominal intensification is overridden by the prosodic constraint barring unstressed af ‘of’ to be followed by an unstressed clitic (i.e. sig). Since in these expressions the preposition (e.g. af, på ‘of, on’) is mandatorily unstressed, the reason for the presence of selv with semantically neutral and inherently reflexive predicates is due purely to prosodic factors.

Predicates of type II have prepositions with variable stress, see (123) and (132). Semantically these predicates are either inherently reflexive (sub-type IIa) or neutral (sub-type IIb). In contrast to predicates of type I, the presence/absence of selv on sig can be explained purely in terms of semantic factors, see (137) column (vi). As shown by the examples in (132), in these predicates the preposition is underspecified with respect to stress and varies according to the following expression. If the expression following the preposition is stressed then the preposition is unstressed and vice versa. Hence it is ultimately semantic factors (i.e. the

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68 Cf. Veraart (1996) who proposes an analysis of Dutch reflexives which includes the assumption that prosodic factors can affect the choice between complex and simple reflexives.
semantic difference between neutral and inherently reflexive predicates + the Contrastiveness Condition on adnominal intensification) which determine the distribution of sig and sig selv.

Type III predicates have prepositions which always have some degree of word stress. In these cases, it is semantic factors (i.e. the semantic difference between neutral and inherently reflexive predicates + the Contrastiveness Condition on adnominal intensification) which straightforwardly determine the distribution of sig and sig selv.

3.3.6.3 Can intensification of reflexives be reduced to lack of stressability?

In this section the question whether adnominal intensification of reflexives can be reduced to stressability is discussed. First in section 3.3.6.3.1 and 3.3.6.3.2 the similarities between stressed and intensified reflexives in French and German are discussed. Then in section 3.3.6.3.3 the stressability-properties of pronouns and reflexives in Danish are contrasted. Finally in section 3.3.6.3.4 two different hypotheses concerning the relationship between stressability and intensification are discussed.

3.3.6.3.1 Stressable reflexives in French

The examples in (140-142) show that the intensified reflexive soi-même ‘REFL-self’ and the stressed reflexives SOI ‘REFL’ behave similarly in that they are both allowed in anti-reflexive constructions like être jaloux de ‘be jealous of’ (141b,c) and excluded in inherently reflexive constructions like être hors de ‘be out of ___’ (142b,c).

(140)  a. Personne n'est fier de ok soi
       b. ok soi-même
       c. ok SOI
       d. ok Marie.

   ‘Nobody is proud of himself/Marie.’
As already discussed above, the similar behavior of *soi-même* and *SOI* follow from the contrastiveness principle, as formulated in chapter 2. Both intensification and focus (realized as stress, e.g. (140-2c)) require the possibility of creating a contrast set of alternatives. Since this is excluded by the semantics of inherently reflexive constructions both intensified and stressed reflexives are excluded in (142). Conversely, since both focus and intensification trigger the generation of a set of alternatives (and thus allow doppelgänger-readings of reflexives, i.e. (representational) non-identity of the referents of the reflexive and its antecedent) they can both license reflexives in anti-reflexive constructions like (141). Note, however, that although intensified and stressed reflexives behave similarly there still is a subtle difference between them, viz. generally *soi-meme* is usually preferred over *SOI* in sentences like (141).

### 3.3.6.3.2 Stressable reflexives in German

Like *soi* ‘REFL’ in French, in German the simple reflexive *sich* ‘REFL’ is also stressable and, as predicted by the theory of intensification proposed here, the behavior of stressed reflexive (e.g. *SICH*) is similar to that of intensified reflexives (e.g. *sich selbst*), see (143-145).
The examples in (143-5) show that the intensified reflexive *sich selbst* and the stressed reflexives *SICH* behave similarly in that they are allowed in anti-reflexive constructions like "auf __ eifersüchtig sein" ‘be jealous of’ (144), and neutral constructions like "stoltz auf" ‘proud of’ (143), and excluded in inherently reflexive constructions like "sich schämen" ‘be ashamed’ (145). Note that although intensified and stressed reflexives behave similarly there still is a subtle difference between them, viz. *sich selbst* is better than *SICH*, just like, in French, *soi-meme* is generally preferred over *SOI*.

3.3.6.3.3 Stressable pronouns in Danish

As shown in section 3.3.6.1 simple *sig* is a syntactically independent but prosodically dependent element which cannot host stress on its own, see (146a(iii)). In this respect, it contrasts with German *sich* and French *soi*, both of which are stressable, see (146b,c). Notice, however, that Danish object pronouns are stressable, see (146d), just like German and French reflexives.
The similarities of stressed and intensified pronouns (e.g. Dan. HAM vs. ham selv) will be discussed further in sections 3.4.2-2. For now suffice it to say that, in certain contexts, stress and intensification appear to have a certain degree of functional equivalence.

3.3.6.3.4 Reducing intensification of reflexives to unstressability

Taken together, the functional equivalence of stress and intensification in German (e.g. SICH ≈ sich selbst), French (e.g. SOI ≈ soi-meme) and Danish (e.g. HAM ≈ ham selv), see sections 3.3.6.3.1-3, and the unstressability of simple sig, see section 3.3.6.1, may lead one to the hypothesis that intensification of reflexives is ALWAYS prosodically motivated, see (147).

Hypothesis I: Only one function of intensification
stress-carrier element (required to prosodically strengthen unstressable clitics)

Basically what hypothesis I says is that adnominal intensification of simple sig is always motivated by stress. The reason why stress must fall on sig may vary, as shown in (148a-c), but in all cases intensification of sig takes place in order to make and unstressable simple reflexive stressable (as marked in bold in (148)).

Stress on sig is triggered by:

- Semantics (representational non-identity => focus => stress => intensification (cf. (94a,b,d) in section 3.3.2.9) 70

69 As mentioned in sections 3.3.6.3.1-2, stressed and intensified reflexives do differ in many respects. In certain contexts intensified forms are more felicitous than stressed forms, and in other contexts the opposite is the case. The fact that there are cases in which intensified are preferred over stressed reflexives, and vice versa, should not be ignored. It would be interesting to investigate the differences between stressed and intensified reflexives in more detail.

70 If Hypothesis I is correct, then (148a) leads to the prediction that stressed forms of French soi, and German sich should be acceptable in statue-sentences in wax-museum contexts, see (i-ii):

(i) Bill Clinton, est fier de SOI,<statue>.
   Bill Clinton is proud of RELF

(ii) Bill Clinton, raseert SICH,<statue>.
   Bill Clinton shaves REFL
b. Contrastive focus $\Rightarrow$ stress $\Rightarrow$ intensification (cf. (94c) in section 3.3.2.9, section 3.3.6.1))

c. Prosody (non-contrastive sentence stress) $\Rightarrow$ stress $\Rightarrow$ intensification (section 3.3.6.2)

While hypothesis I may work for reflexives, it is not obvious that it can be extended to both pronouns and DPs. With pronouns and DPs we find both stressed and intensified forms, see (149-150).

(149) a. \textit{HAN} kom til mødet.  
\textit{HE} came to meeting-the  
‘HE came to the meeting.’  

b. \textit{Han selv} kom til mødet.  
\textit{He self} came to meeting-the  
‘He himself came to the meeting.’

(150) a. \textit{KONGEN} kom til mødet.  
\textit{KING-the} came to meeting-the  
‘THE KING came to the meeting.’  

b. \textit{Kongen selv} kom til mødet.  
\textit{King self} came to meeting-the  
‘The king himself came to the meeting.’

As shown in chapter 2, the semantics of intensification and focus are similar, i.e. both involve the generation of a contrast set of alternatives (which, depending on the context, may or may not be scalarly ordered). It is thus not surprising that in many cases they can be found in the same contexts. However, the mere fact that certain languages allow for the existence of both intensified and focused expressions is a strong indication that there must be some semantic/functional difference between the two. Due to space limitations we leave the investigation of this topic to further research. However, if differences between focus and intensification are found, which seems to be likely, then Hypothesis I must be revised. A possible alternative hypothesis is formulated in (151).

(151) \textbf{Hypothesis II: Two different functions of intensification}  
\begin{itemize}
  \item a. Contrastiveness/representational non-identity(cf.(94a-d) in section 3.3.2.9))
  \item b. Stress-carrier element (required to prosodically strengthen clitics, (121), (138))
\end{itemize}
Hypothesis II assumes two different functions of *selv*: (i) a contrastiveness marker which falls under the contrastiveness condition on adnominal intensification (151a), (ii) a stress-carrier element which is required solely to enable unstressable reflexives to host stress (which is required by non-contrastive sentence stress) (151b). While less elegant and less economical than Hypothesis I, Hypothesis II has the advantage of not predicting focus and intensification to be semantically and functionally identical (a prediction which is probably too strong).

Furthermore, the existence of examples like (138) clearly shows that, in certain cases, prosodic constraints can outweigh semantic constraints. Ultimately, the choice between Hypothesis I and II is, of course, extremely important. However, since it does not both are compatible with the analysis of intensification and binding proposed here we leave this topic for further research.

### 3.3.7 Summary

The important lesson to be draw from sections 3.3.1-6 is that binding and intensification are independent, see (152).

\[(158)\] **Independence of binding and intensification:**

a. Independence of locality and intensification \((\text{sect. 3.3.1})\)
b. Predicate-meaning and intensification \((\text{sect. 3.3.2.1-4})\)
c. Doppelgänger-effects and intensification \((\text{sect. 3.3.2.7})\)
d. Resultative constructions \((\text{sect. 3.3.3})\)
e. ECM-constructions \((\text{sect. 3.3.4})\)
f. Possessive reflexives \((\text{sect. 3.3.5})\)
g. Reflexives in prepositional predicates and stressability \((\text{sect. 3.3.6})\)

Binding of reflexives (i.e. the distribution of (thematic) *sig*) falls under principle A as formulated in section 3.2. That is, the distribution of the reflexive anaphor *sig* can be explained by a Pica-style account based on LF movement of the \(X^0\) reflexive to INFL/T. As shown such an analysis explains both the LD-behavior and subject-orientation of *sig*. Independently thereof the distribution of the adnominal intensifier *selv* ‘self’ and its suppletive

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71 See also discussion of inherently reflexive verbs with intensified *sig selv* in chapter 4, section 4.3.3.
variant *egen* ‘own’ can be shown to be determined by the non-binding related semantic, pragmatic, and prosodic factors. Furthermore, as shown in sections 3.3.3, 3.3.4, and 3.3.5. the nominal approach to binding adopted here has no difficulties with non-coargument bound reflexives (e.g. in resultative, ECM and possessive constructions) while many predicate-centered approaches flounder on such cases. In section 3.4, the consequences of applying the same approach to binding and intensification of simple and complex pronouns are discussed.

### 3.4 Distribution of simple and complex pronouns

In this section we propose an account of simple and complex pronouns in Danish based on the assumption that complex pronouns, e.g. *ham selv* ‘himself/him himself’, are the intensified versions of the simple pronouns, e.g. *ham*. But before we proceed to the discussion of complex pronouns, we need to determine the principles accounting for the distribution of simple pronouns, e.g. *ham* ‘him. This will be done in section 3.4.1 where we argue that a syntactic approach to the distribution of pronouns based on principle B provides the best account. Then in section 3.4.2 and 3.4.3 the special properties of intensified pronouns (e.g. *ham selv* ‘him self’) in object and subject position respectively will be discussed in more detail. It will be shown that the differences between simple and intensified pronouns are explained as following from general properties of adnominal intensification. That is, the difference between *ham* and *ham selv* should not be explained within binding theory but rather with the module of intensification. Section 3.4.4 contains a brief discussion of the notion of logophoricity which has often been adduced to account for the behavior of intensified pronouns (as well as non-locally bound reflexives). Finally, section 3.4.5. concludes the discussion of pronouns and sums up the chapter.
3.4.1 Binding of pronouns: principle B

As mentioned above, we argue that the binding of simple pronouns should be accounted for by purely syntactic principles, see (153) and (154).

(153) Binding Principle B: A pronoun is free in a local domain.

(154) Binding Domain: alpha is a binding domain for beta if and only if alpha is the minimal category (i.e. the smallest DP or IP/S) containing beta, a case-licensor or beta, and a SUBJECT accessible to beta.

Assuming that the relevant local domain is defined as in (154) in Danish, B principle in (153) accounts for the distribution of pronouns, see (155).

(155) a. [Peter, barberede ham \(_{i/o}\)].
Peter shave-PAST him
‘Peter shaved him \(_{i/o}\).’
b. [Peter, bad mig, barbere ham \(_{i/z}\)].
Peter ask-PAST me shave-INF him
‘Peter asked me to shave him \(_{i/z}\).’
c. [Peter, bad Jørgen, barbere ham \(_{i/z}\)].
Peter ask-PAST Jørgen shave-INF him
‘Peter asked Jørgen to shave him \(_{i/z}\).’
d. [Peter, sagde [at jeg barberede ham]].
Peter say-PAST that I shave-PAST him
‘Peter said that I shaved him.’

Example (155a) illustrates that ham ‘him’ cannot be locally bound. It also shows that ham ‘him’ must have phi-features since it can be used deictically. In both these respects it differs from the reflexive sig (see section 3.2). Sentences (155b) and (155c) show that ham can be LD-bound by a non-local intra-sentential antecedent, a property it has in common with the simple reflexive sig ‘REFL’. However, (155d) shows that, unlike sig, ham can be bound by an antecedent outside the tensed clause. This leads us to the descriptive generalization in (156).

(156) Descriptive generalization II: ham must be free inside the minimal tensed clause
The sentences in (157) and (158), which contain what appear to be instances of pronouns bound inside their binding domains, indicate that we may have to modify the generalization in (156).

(157) a. *Peter, fortalte Martin_2 om ham_2 selv.
    b. #ham_2.
    c. *sig_2 (selv).

Peter told Martin about him self/him/REFL self

(158) a. Peter, gav Martin,’s maleri til ham_2 selv.
    b. #ham_2.
    c. *sig_2 (selv).

Peter gave Martin’s painting to him self/him/REFL self

What (157) and (158) show is that pronouns can have an antecedent inside their binding domains as long as it is not a subject. This leads us to the new generalization in (159).

(159) Descriptive generalization II (revised version):

    ham must be free from binding by a subject inside the minimal tensed clause

While the distribution of pronouns can be accounted for syntactically within binding theory (i.e. principle B), the presence/absence of selv-intensification of pronouns, e.g. (157a)-(158a) vs. (157b)-(158b), has to be explained by reference to the principles controlling adnominal intensification. In the case of examples (157-8), a semantic account naturally presents itself. Under normal circumstances one does not give somebody information about himself, since everybody is normally assumed to be well informed about themselves. In the following

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72 It would be interesting to test to see if stressed HAM ‘HIM’ might fare better in these sentences. If stressed HAM and intensified ham selv are interchangeable in certain contexts, as discussed in section 3.3.6.3.3-4, then one would expect stressed HAM to be acceptable, or at least better than unstressed, unintensified ham in these examples.

73 As already shown in section 3.3.5, example (104), his generalization also holds for possessive pronouns, e.g. hans ‘his’ and hans egen ‘his own’. The fact, that pronouns cannot be bound by a subject has been referred to as “subject-obviation”, cf. Huang (2000:24, note 5): “(some forms of) possessive pronouns in languages like Danish, Norwegian, and Icelandic seem to be subject-obviative, that is, they must be free from the closest potential subject in a specific syntactic domain.”
section we will discuss more evidence showing that the so-called complex pronouns, e.g. *ham selv* ‘him self/him himself’, are in fact nothing but adnominally intensified version of their simple counterparts.

3.4.2 Intensified object pronouns.

If binding and intensification constitute separate modules of the grammar, as claimed in this dissertation, then adjunction of the adnominal intensifier *selv* ‘self’ to simple pronouns should follow from the principles of intensification. The examples in (160-1) appear to confirm this prediction.

(160) a. *Jon, vil giftes med en kvinde som er stolt af *ham, / *ham, selv / *sig, / *sig, selv.*

‘Jon wants to marry (passive) with a woman who is proud of ___.’

b. *Kongen troede at ingen kunne lide *ham, / *ham, selv / *sig, / *sig, selv.*

king-the thought that nobody could like him. [= (2e) in section 1 above]

‘The king thought that nobody liked him.’

(161) a. *Jon, plejede at have folk som var anderledes end *ham, / *ham, selv / *sig, / *sig, selv.*

‘Jon used to hate people who were different from ___.’

---

74 Sentences containing (intensified) pronouns with local non-subject antecedents are very rare, cf. Olsen (1992) quoted in Jakubowicz (1994). In the entire novel *Niels Lyhne* by J.P. Jacobsen (1880) we only found two examples, both of which are of the same “anti-reflexive” nature as (i) and (ii). (Page numbers from Gyldendal’s 1980 edition).

(i) *[... Niels forsøgte [...] at gøre Frithiof, komisk for ham, selv [...].] (1980:86)

Niels tried to make Frithiof comical for himself

‘Niels tried to make Frithiof comical to himself.’


His love was strong as hers but it lacked the fine masculine tenderness that guards the beloved woman against her self and protects her dignity

‘His love was strong as hers but it lacked the fine masculine tenderness that guards the beloved woman against herself, and protects her, dignity.’

Although we have yet to find any convincing cases of semantically “neutral” or “inherently reflexive” constructions with non-subject-bound, local intensified pronouns, we cannot exclude that such examples might exist. If this is the case, then they may constitute a potential problem for the account of complex pronouns presented here.

75 The examples in (160a) and (161a,c,d) are from Safir (M.S.), p. 17-18, (35a,b,d,e).

76 The reflexives *sig* and *sig selv* are included here only for completeness and will not be discussed below. The ungrammaticality of both *sig* and *sig selv* with the indices indicated, in all the examples in (160) and (161) follows directly from binding theory and has nothing to do with the module of intensification. As shown in section 3.2.4, simple *sig* and complex *sig selv* are both anaphors which must be bound inside the tensed clause. Since that condition is not met in the sentences in (160-161), both *sig* and *sig selv* are ungrammatical.
b.  *Carl, sagde at Marie havde snakket med alle andre end ham, / ?ham, selv / *sig, / *sig selv.  
   ‘Carl said that Marie had talked to all others than __.’

c.  *Carl, sagde at disse mænd hader alle inklusive/undtagen ham, / ?ham, selv / *sig, / *sig selv.  
   ‘Carl said that the men hate all including/excluding __.’

d.  *Jon, sagde at han aldrig ville tillade sin datter så meget som at overveje at gifte sig med en mand helt forskellig fra ham, / ham, selv / *sig, / *sig selv.  
   ‘Jon said that he never would allow his daughter so much as to consider to marry herself to a man completely different from __.’

Notice that while the examples in (160) only allow the simple pronoun *ham ‘him’, the examples in (161) all allow for both simple *ham ‘him and complex *ham selv ‘himself (him himself)’. Contrast seems to be the most important characteristic of the contexts allow LD-bound *ham selv illustrated in (160). Both the so-called “similarity predicates”, e.g. (161a,d), and “exclusion predicates”, e.g. (161b,c), are inherently contrastive predicates which trigger adnominal intensification.

The term “similarity predicate” is from Safir (1992). Safir (M.S., p. 14) defines this class of predicates as follows: “The semantic class of [similarity] predicates [...] very often appears in copular constructions the same way as other adjectives do as in the comparisons in [(162)], yet other adjectives do not induce the same logophoric effects, as illustrated in [(163)].

A list of similarity predicates (from Safir (1992)) appears in [(164)]."

(162)  a.  *Darby is fairly deferential / similar to Selena.
   b.  *Esther is quite estranged / different from Daffy.
   c.  *Angela is rather angry at / like Andrea.

(163)  a.  *Sissy insists that Darby is fairly similar / *?deferential to herself.
   a’.  *Etta attacks people similar / *?deferential to herself.
   b.  *Theo says Esther is quite different / *?estranged from himself.
   b’.  *Thor threatens people different / *? estranged from himself.
   c.  *Otto admits that Mary is rather like / *angry at himself.
   d.  *Abraham always abhors someone like / *angry at himself.

(164)  like, unlike, similar to, different from, identical to, such as
“While the “similarity” predicates, all having to do with identity of person or properties in relation to another, all permit the logophoric effect, none of the non-similarity predicates do. The R&R account predicts that none of these predicates permit logophoricity if they apply their definition carefully. However even if the definition is interpreted the way they intend, that is, if they interpret it to mean that similar to is not a predicate and that it does not assign Case, then presumably they must say the same thing about adjective plus preposition units like deferential to, angry at and estranged from. Either way, they fail to make a significant distinction because they fail to take into account the semantic force of the predicates involved.” (Safir (M.S.), p. 14).

The term “exclusion” predicate is from Safir (1992). Safir (M.S.) describes the properties of exclusion predicates as follows: “unlike similarity predicates exclusion predicates [see (165)] are not possible in copular environments [see (166)], yet [like similarity predicates] they also are typically two place relations and all arguably assign Case.

(165) apart from, but, rather than, except, save, besides, other than, in addition to, including, excluding

(166) *Hillary is apart from / rather than / other than Bill.

By the latter criterion, the SELF-forms are syntactic arguments in the R&R account if exclusion predicates are indeed predicates. Yet all of these exclusion contexts permit logophoric behavior [see (167)].

(167) Dole pointed out that the Republicans would look foolish if anyone other than / rather than / apart from / except / save himself were nominated.

Safir concludes ‘that exclusion predicates are predicates and as such they are just as problematic for R&R as the similarity predicates are” (Safir (M.S.), P. 14-15).

The similarity predicates x er anderledes end y ‘x is different than y’ and x er forskellig fra y ‘x is different from y’ in (161a,d) both involve directly contrasting two
individuals or groups. Similarly, the exclusion predicates *alle andre end x* ‘all others than x’, *alle medregnet y* ‘all including y’, and *alle undtagen y* ‘all excluding y’ in (161b,c) also involve direct contrast of two groups/individuals; i.e. in (161b,c) the group of people whom Marie spoke to is explicitly contrasted with the group of individuals with whom she didn’t speak, see (168).

(168) a. \(X\) *er anderledes end Y* ‘X is different from Y’
    b. *alle andre end Y* ‘all others than Y’
    c. *alle inklusive/undtagen Y* ‘all including/excluding Y’
    d. \(X\) *er forskellig fra Y* ‘X is different from Y’
    e. \(X\) IS CONTRASTED WITH Y

Inherently contrastive predicates can be defined as predicates which involve explicitly contrasting two individuals or groups (\(X\) and \(Y\)) with respect to some property or event, see (168f)\(^{77}\). In examples with inherently contrastive predicates it is thus the meaning of these predicates which satisfies the contrastiveness principle, as formulated in chapter 2, and thereby licenses intensifier adjunction to personal pronouns.

Now, let us return to the example in (160a). According to the judgments reported in Safir (1997), the intensified pronoun *ham selv* is unacceptable in this example. Notice however, that *ham selv* can be rendered felicitous, even in the sentence in (160a), in explicitly contrastive situations, see (169A).

\(^{77}\) Note that with respect to the distribution of simple and complex reflexives in Danish (i.e. *sig* vs. *sig selv*), inherently contrastive predicates are “anti-reflexive” (i.e. “other-directed”), e.g.:

(i) *Peter er forskellig fra *sig / sig selv / John.* ‘Peter is different from himself/John.’
(ii) *Peter barberede all undtagen *sig / sig selv / John* ‘Peter shaved all excluding himself/John.’
Q: Hvem er det Jon vil have, at den kvinde han vil giftes med skal være stolt af? Vil Jon absolut giftes med en kvinde, som er stolt af hans far?

A: Nej, dit torskehovede! Jon vil giftes med en kvinde som er stolt af ham selv.

It thus seems to be the case that ham selv can felicitously occur in sentences like (160a) under the condition that strong contrast is directly expressed or implied by the larger context as in (169) (where ham selv, referring to Jon, is directly contrasted with hans far ‘his father’). If this condition is not met, e.g. (160a), then the presence of selv does indeed seems rather infelicitous.

The examples discussed above seem to indicate that the presence of selv in the complex pronoun ham selv can be licensed in at least one of two different ways: (i) by the inherent contrastiveness of its governing predicate, see (161a-d), or (ii) by the contrastiveness evoked by the larger (linguistic or extra-linguistic context), see (169).

Now compare that with the situation holding for sig selv. As already discussed in section 3.3.2, with “neutral” predicates the presence of intensifier-adjunction is optional and usually only occurs in contexts which involve strong contrast between two individuals/groups, see (170), and cannot occur in sentences in which another element has already been focused, see (171).

See also Keenan (2001), König & Siemund (1999), Zribi-Hertz (1989) for discussion of “contrastive predicates”.
Q: *Hvem var det nu at Peter havde vasket? Havde han vasket sin hund?*  
   ‘Who was it that Peter had washed? Had he washed his dog?’
A: *Nej, han havde vasket SIG SELV / *SIG.*  
   ‘No, he had washed himself.’

Q: *Hvad var det nu at Peter havde gjort før han gik i seng?*  
   ‘What was it Peter had done before he went to bed?’
A: *Han havde VASKET sig / ??sig selv.*  
   ‘He had WASHED himself.’

As illustrated by the contrast between (160a) vs. (169) and (170) vs. (171), *selv* is often adjoined to the simple reflexive *sig* and the simple pronoun *ham* for the purpose of indicating contrast. Indeed, the contrast between (160a) vs. (169) and (170) vs. (171) illustrates that optional intensifier-adjunction to *sig* and *ham* is felicitous only when contrastiveness is somehow motivated (or at least compatible with) by the larger context.

The fact that *ham selv* can occur freely with all the predicates in (161a-d), even without explicit contrast present in the extra-sentential context, can now be explained simply as following from the fact that all those predicates are inherently contrastive, see (168e), and thus in themselves provide the contrastive context necessary to motivate the presence of *selv*. This also explains why *selv*-adjunction is not licensed in those constructions involving predicates like *stolt af* ‘proud of’ which are not inherently contrastive, unless the larger context contains explicit contrast between the argument of the predicate *stolt af* ‘proud of’ and some other entity, see (160a) vs. (169).

In the above discussion we have demonstrated that complex pronouns, e.g. *ham selv*, share some properties with intensified reflexive, e.g. reflexive *sig selv* discussed in section 3.3. That is both occur in contrastive contexts, i.e. contexts which satisfy the contrastiveness condition on adnominal intensification discussed in chapter 2. There are, however, also important differences between *ham selv* and and *sig selv* which follow from semantic and prosodic differences between simple *sig* and *ham*, some of which are listed in (172).
Comparing sig and ham:

<table>
<thead>
<tr>
<th></th>
<th>sig</th>
<th>ham</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Can carry stress :</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>b. Can refer on its own</td>
<td>NO</td>
<td>YES</td>
</tr>
</tbody>
</table>

As also discussed in section 3.3.6.3-4, the fact that ham is potentially stressable while sig is not, see (173a), may be the reason why selv is optional in the examples (161a-d).

\[
\text{(173) a. Carl sagde at Marie havde snakket med alle andre end ham selv} \\
\text{b. Carl sagde at Marie havde snakket med alle andre end HAM.} \\
\text{c. ?*Carl sagde at Marie havde snakket med alle andre end ham.} \\
\text{Carl said that Marie had talked to all others than himself/HIM/?*him}
\]

The examples in (173a,b) show that both intensifier adjunction (ham selv) and focus on HAM ‘HIM’ can be used to satisfy the contrastiveness requirement of the “inherently contrastive” predicate alle andre end ‘all others than’\(^{78}\). In contrast, the sentence degrades considerably if the pronoun ham is neither focused nor intensified, see (173c)\(^{79}\).

The fact that ham has phi-features and thus can have reference on its own, see (173b), is the reason why simple ham gives rise to referential ambiguities which do not occur with simple sig, see (174a).

\[
\text{(174) a. Peter sagde at orkestret ikke maatte spille med andre end ham} \\
\text{b. Peter sagde at orkestret ikke maatte spille med andre end ham selv} \\
\text{Peter said that orchestra-the not could play with others than him / him self} \\
\text{as conductor} \\
\text{‘Peter said that the orchestra couldn’t play with anybody but himself as conductor.’}
\]

Simple ham in (174a) may refer either to the matrix subject Peter or to some 3\(^{rd}\) person male individual not mentioned in the sentence. The complex ham selv, on the other hand, seems to

\(^{78}\) This is reminiscent of the situation holding in English where stressed HIM and himself are also (to a certain extent) in free variation, see Baker (1995). See also Siemund’s (2000) critique of this analysis.

\(^{79}\) Note that the sentence in (i) may potentially constitute a problem for the account of the distribution of ham and ham selv proposed here. (i) Peter, havde snakket med alle andre end *ham, / ham selv / *sig, / sig selv.

‘Peter had talked to all others than __.’

According to the contrast-based account proposed in 3.3.6.3.3, we would expect a stressed form of the simple pronoun ham ‘him’ to be possible in (i).
be restricted to referring back to the matrix subject. It thus seems that intensifier-adjunction to \( ham \) has the effect of limiting the range of possible antecedents. This effect is what Zribi-Hertz (1995) refers to as the endophoricizing effect of intensifier-adjunction. It does not seem implausible that, in certain instances, the use of \( ham \) selv rather than simple \( ham \) could be motivated by a need/intention to disambiguate the reference of \( ham \). Notice, however, that intensification of pronouns does not always disambiguate between two or more possible antecedents, see (175).

(175)  

a. \( Rune \), troede at Peter, havde sagt at orkestret ikke maatte spille med andre end \( ham \) selv som dirrigent.  
Rune thought that Peter had said that orchestra-the not could play with others than him self as conductor  
‘Rune thought that Peter had said that the orchestra couldn’t play with anybody but himself as conductor.’

b. \( Rune \), var ikke synderligt bange for at nogen anden skulle usurpere hans, plads som dirrigent på det kongelige teater. Peter, havde nemlig sagt at orkestret ikke maatte spille med andre end \( ham \) selv som dirrigent.  
Rune was not particularly afraid for that somebody else should usurp his place as conductor at the royal theater. Peter had actually said that orchestra-the not could play with anybody but himself as conductor.  
‘Rune was not particularly afraid for that somebody else should usurp his place as conductor at the royal theater. That was because Peter had said that the orchestra couldn’t play with anybody but himself as conductor.’

In (175a) the antecedent of the intensified pronoun \( ham \) selv could be either the \( Peter \) or the matrix subject \( Rune \). As shown in (175b), given the right context \( ham \) selv may even skip a sentence internal subject in order to be bound by an extra-sentential antecedent. Based on these examples, we conclude that the apparent disambiguation function of selv-adjunction is simply a side-effect of adnominal intensification.

The sentence in (176) illustrates that intensified pronouns do not need to be bound by logophoric subjects and that the main function of adnominal intensification is contrastive.
(176) For hende, var det, som om døde, lykkelige Dage rejste sig af deres Grav og gik igjen, saa Alting sølsom sødt forvirredes og Fortid og Nutid smelted sammen til en sølvsløret, dæmrende Drømmedag, hvor hun,elskede Ynglingen, halvt som ham, selv, halvt som en Andens Skygge, og gav ham, helt sin, halve Sjæl.

For her was it, as if dead, happy days rose from their grave and went again so everything strangely sweet confused-PASS and past and present melted together to a silver-veiled dim dream-day where she loved the swain half as himself half as somebody else’s shadow and gave him unconditionally half of her soul. ’For her, it was as if dead, happy days rose from their grave and came back hauntingly, so that everything was confused in a strangely sweet way and past and present melted together to a silver-veiled, dim dream-day where she loved the swain, half as himself, half as somebody else’s shadow, and gave him, unconditionally half of her, soul.’ (J.P.Jacobsen (1880) Niels Lyhne, p. 81, bold and italic added here)

In (176) intensification of the pronoun ham is clearly not motivated by a need for referential disambiguation, but rather by the explicit contrast between Ynglingen ‘the swain’ and en Andens Skygge ‘somebody else’s shadow’. We suggest that the primary function of intensification is to indicate some kind of contrast, and that what appears to be a disambiguation function of selv is no more than a secondary effect of intensification.

3.4.2 Intensified subject pronouns: Intensified pronouns as subjects of embedded clauses in English and Danish

In the previous section intensification of object pronouns was discussed. This section will present an account of simple and complex subject pronouns. As with complex reflexives and complex pronouns discussed above, we argue that complex subject pronouns, e.g. Dan. han selv ‘he himself’, are simple adnominally intensified versions of the corresponding simple forms, e.g. han ‘he’.

In his 1986 Linguistic Inquiry squib “He Himself: Anaphor, Pronouns, Or . . . ?” Bickerton claims that the complex form he himself is a special kind of anaphor having the
features [+anaphor, +pronominal] in Chomsky’s (1982) system. This feature combination would then explain the (alleged) fact it appears to have properties associated with both anaphors and pronouns. Bickerton (1986:347) arrives at this conclusion based on data such as (177)-(182). Sentences (177) and (180) show that like pronouns, she herself can have extra-sentential antecedents. The fact that its antecedent does not have to c-command it, see (181) and (182a), also confirms its pronominal behavior. However, it behaves more like anaphor in other respects. It does not allow extra-sentential antecedents in the presence of potential intra-sentential antecedents, see (178). Furthermore, if it is bound inside the sentence, then it must be by a c-commanding antecedent, see (178) and (179). While complex forms like she herself share properties of both anaphors and pronouns they also differ from both with respect to Case-marking and reconstruction effects. Unlike reflexives and object pronouns, they receive nominative case and appear to allow Principle C violations in LF reconstructions, see (182a) vs. (182b).

(177) A: How will Mary, do in the exam?  
B: I don’t know, but she, herself says she, I’ll pass.

(178) A: How will Mary, do in the exam?  
B: I don’t know, but Susan, says that she, herself will pass.

80 Iatridou’s (1986) LI squib “An Anaphor Not Bound in Its Governing Category” proposes that Modern Greek has an expression very similar to Bickerton’s he himself, i.e. o idhios ‘he himself’, see (i).

(i) a. O Yanis, pistei oti o idhios, tha kerdhisi. (=Iatridou 1986(6))  
John believes that himself will win  
‘John, believes that he himself will win.’

b. O Yanis, theli [i Maria na voithisi ton idhio].  
John wants Mary helps himself  
‘John, wants Mary to help him.’

c. O Yanis, ipe ston Costa, [oti i Maria aghapa ton idhio].  
John said to Costa that Mary loves himself  
‘John, said to Costa that Mary loves him.’

Like English himself, the expression idhios is also used as adnominal intensifier, see (ii).

(ii) a. O Yanis o idhios pighe sto scholio.  
b. Aftos o idhios pighe sto scholio.  
c. pro o idhios pighe sto scholio.  
‘John / He / pro went to the school himself.’

Modern Greek is a pro-drop language and Iatridou argues that (iic) shows that pro can be adnominally intensified by the intensifier idhios ‘same; himself’.

81 The account of examples (177-182) is based on a paraphrase of Bickerton (1986:347).
(179) a. John told Bill’s sister that he had been arrested.
b. Susan told everyone who knew Mary that she herself was pregnant.

(180) Even Bill’s genius has its limits. The problem that Mary just raised is one that he admits he can’t solve.

(181) a. The essays that Mary wrote were things that she herself attached little importance to.
b. Explaining what John really believes is something that he himself can’t always do.
c. The ways in which the twins behave suggest that they themselves don’t always know what they’re doing.

(182) a. Which pictures of John does he himself like?
b. *Which pictures of John does he like?

Unlike Bickerton (1986), McKay (1991) argues that he himself is not an anaphor. Furthermore, according to McKay the “emphatic appositive use of reflexives”, i.e. what in this dissertation is called intensifiers, “require a clearly indicated referent and a relevant contrast or comparison class [...]”(McKay 1991:368). In other words, McKay essentially proposes that he himself is an intensified pronoun. Syntactically, it behaves like its unintensified counterparts he, him, etc. Pragmatically, it is subject to the same discourse based conditions (i.e. contrastive contexts) as other intensified expressions. In this sense, McKay (1991) is the forerunner of Baker (1995) as well as the present dissertation. That is, we share McKay’s conclusion that “he himself is grammatical whenever he is grammatical, and the same range of antecedent relationships is grammatically possible, though he himself requires a relevant contrast or comparison for pragmatic appropriateness” (McKay 1991:370-371).

McKay (1991) uses examples like (183) to show that he himself is not a new type of anaphoric expression (as argued by Bickerton), but simply an intensified pronoun which is still subject to principle B.

(183) A: Mary has been concerned about her friends. Susan said that several were going to fail the course, and Susan might be right. But Mary should think more about her own work. How will Mary do on the exam?
B: I don’t know, but Susan says that she (she, herself) (she herself) will pass.

We agree with McKay that the example in (183) falsifies Bickerton’s (1987) claim that he himself behaves like an anaphor in that it “cannot have an antecedent outside the sentence if there is a possible antecedent inside”. Bickerton’s claim was based on examples like (178). McKay’s main contribution is to show that, given the right context, as in (183), he himself can be bound by a sentence-external antecedent in spite of the presence of a potential antecedent inside the sentence. That is, the pronominal nature of subject pronouns is not affected by adnominal intensification. In other words, binding and adnominal intensification are independent of each other.

As the examples in (184-185) show, Danish intensified subject pronouns, e.g. han selv ‘he himself’, behave similarly to their English counterparts, i.e. they are pronouns falling under principle B of the binding theory. Independently thereof, whether or not they are intensified depends on pragmatic factors (i.e. contrast).

(184) A: Mary has been concerned about her friends. Susan said that several were going to fail the course, and Susan might be right. But Mary should think more about her own work. How will Mary do on the exam?

B: Det ved jeg ikke, men Susan siger at hun selv vil bestå uden problemer.

that know I not, but Susan says that she/she herself will pass without problems ‘I don’t know, but Susan says that she/she herself will pass without any problems.’

(185) Niels Lyhne had therefore also composed poetry out from an aesthetic personality in all generality, which found spring—the swelling, sea—the great, love—the erotic and death—the melancholic he himself was not come further with this poetry he merely made the verses the

‘Niels Lyhne had therefore also composed poetry based on a general aesthetic personality who found the spring swelling, the sea great, love erotic and death melancholic. He, himself had not gotten any further with this poetry; he, merely made the verses.’ (J.P. Jacobsen (1880) Niels Lyhne, p. 83, bold and italic added here)
In (184) Mary is contrasted with her friends and in (185) Niels Lyhne is contrasted with *en æsthetisk Personlighed i al Almindelighed* ‘a general aesthetic personality’. In brief, intensified pronouns in Danish, e.g. *han selv* ‘he himself’, are not a special type of anaphor but simply adnominally intensified versions of their simple counterparts which have to satisfy the contrastiveness condition on adnominal intensification.

### 3.4.3 Logophors and logophoricity vs. intensification and intensified pronouns

The term “logophor” is often used loosely in the literature to refer to locally free instances of *himself* in English\(^\text{82}\). It has also sometimes been used to refer to the intensified pronoun *han selv* which tends to be the form used in Danish in contexts were English would have locally free instances of *himself*. This use of the term logophor is, however, potentially misleading since the term logophor is also widely used in a more narrow sense as referring to an author-denoting pronominal element which has to be bound by an attitude operator (cf. Clements (1975), Chierchia (1989), Huang&Liu (2000), Schlenker (1999), etc.)\(^\text{83}\). This definition of logophoricity was first developed to describe the behavior of morphologically specialized logophoric elements in West African languages (cf. Hagège (1974), and Clements (1975)). The examples in (186-87) (from Clements (1975)) exemplifies the behavior of the logophoric element *yè* in Ewe.

\[\begin{align*}
(186) & \quad \text{a. Kofi be yè-dzo} \\
& \quad \text{Kofi say LOG-leave} \\
& \quad \text{‘Kofi said that he (Kofi) left.’} \\
& \quad \text{b. Kofi be e-dzo} \\
& \quad \text{Kofi say he/she-leave} \\
& \quad \text{‘Kofi said that he/she (≠Kofi) left.’}
\end{align*}\]

\(^{82}\) E.g., Reinhart & Reuland (1993) who refer to all instances of *himself* which are not coindexed by a co-argument as “logophors”. In other words, Reinhart & Reuland’s approach implies that any SELF form which does not fall under Principle A must be a logophoric element.

\(^{83}\) Sells (1987), Zribi-Hertz (1989), Reinhart & Reuland (1993), etc. for different definitions of logophoricity.
The example in (186a) show the standard case of a logophoric pronoun bound by an overtly realized attitude operator (i.e. the matrix subject). Interestingly, the English and Danish translations of this example do not necessarily involve the so-called “logophors”, i.e. himself and ham selv, but rather the simple subject pronouns he and han ‘he’, see (188).

The intensified pronoun ham selv, marked with a (8) in (188) is perfectly acceptable when the larger context implies contrast (see the discussion of examples (160a) and (169) in section 3.4.2). In this respect, ham selv seems to behave exactly like he himself in English, see also section 3.4.2.

The Ewe examples in (187) illustrate the fact that logophors cannot occur inside a relative clause, unless the relative clause is itself embedded under an attitude verb. Let us now test to see if Danish ham selv behaves the same way in relative clauses, see (189).

The judgments indicated as (8) ham selv here means that the use of the form ham selv is unfelicitous (i.e. ?) unless when the whole sentence occurs in an explicitly contrastive context (i.e. ok).
d.  

Jon sadde altid at han ville giftes med en kvinde som var anderledes end *ham / ham selv / *sig / *sig selv.

‘Jon always said that he wanted to marry (passive) with a woman who is different from ___.’

As already discussed in the previous section, the sentence (189a), does seem to be infelicitous as it is, i.e. in the absence of an explicitly contrastive larger context. The question is now whether it will behave like its Ewe counterpart (187a,c) and improve when embedded under an attitude verb, see (189b). It is my impression as a native speaker that the acceptability of _ham selv_ in (189a) does not improve significantly when the sentence is embedded under an attitude verb whose subject is coreferent with _ham selv_, see (189b)\(^85\). While (189b) may be slightly better than (189a) it is still the absence vs. presence of an explicitly contrastive context which is the most important factor deciding the acceptability of both (189a) and (189b). The examples in (189c,d) involve the inherently contrastive predicate _anderledes end_ ‘different from’ and as a consequence, the use _ham selv_ always results in a perfectly acceptable sentence regardless of the presence/absence of overt attitude operators and the nature of the context. In other words, unlike the situation holding for Ewe logophors, see (186) and (187), in Danish, it is not the presence/absence of an attitude operator which determines the acceptability of the sentences with _ham selv_ in (189), but rather the contrastive/non-contrastive nature of the predicate governing _ham selv_. Based on the above examples we conclude that Danish _ham selv_ is not a logophor in the narrow sense of the term but rather the intensified form of the pronoun _ham_.

### 3.4.4 Summary

While there are still a number of unsolved problems surrounding the question of the distribution of _ham selv_ in Danish (e.g. the endophorizing/logophorizing function of _selv-_)
adjunction to *ham*, it seems clear that contrast (either provided by the larger context or the governing predicate) plays a central role. In other words, intensification (the distribution of *selv*) and binding (distribution of pronouns *han/ham/hans* ‘he/him/his’) are mutually independent. Complex pronouns (e.g. *han selv* ‘he himself’, *ham selv* ‘him himself’, and *hans egen* ‘his own’) composed of a pronominal part (e.g. *han/ham/hans* ‘he/him/his) plus an adnominal intensifier (*selv/egen* ‘self/own’). The pronominal part fall under principle B of the binding theory while the intensifier is subject to the contrastiveness condition on intensification. Consequently, intensified pronouns in Danish and English are neither logophors (i.e. elements which have to be bound by an attitude operator), nor a special kind of anaphor (cf. Iatridou (1986), Bickerton (1986)) as has sometimes been proposed.

### 3.5 Conclusion The independence of binding and intensification

In this chapter we have presented an account of simple and complex reflexives and pronouns in Danish based on the proposal that binding and intensification should be clearly separated although they overlap in the case of complex reflexives and pronouns which are here analyzed as adnominally intensified forms of their simple counterparts. That is, we proposed that the descriptive generalizations in (190)-(193) are best accounted for within a framework which separates binding and intensification into the independent modules summarized in (194) and (195) respectively.

(190) **Simple reflexives (e.g. sig):**  
must be bound by subject in a local domain (=minimal tensed clause)

(191) **Simple pronouns (e.g. ham):**  
must be subject-free in a local domain (=minimal tensed clause)

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85 Since intensifier adjunction is highly sensitive to various context factors (e.g. implicatures, contrast, ...) 100% consistent native speaker judgments are hard to obtain cases like these.
(192) **Complex reflexives (e.g sig selv):**
   a. anti-reflexive predicates
   b. hidden neutral
   c. contrastive contexts (with neutral predicates)
   d. doppelgänger-effects
      (i) statue-readings
      (ii) qua-sentences
      (iii) strict (and sloppy) readings in VP ellipsis
   e. stress-carrier (e.g. after unstressed prepositions)

(193) **Complex pronouns (e.g ham selv):**
   a. inherently contrastive predicates
   b. explicitly contrastive contexts

(194) **Binding theory:**
   a. Principle A (accounts for (190)).
   b. Principle B (accounts for (191)).

(195) **Contrastiveness condition on adnominal intensification (= (2) chapter 2) (accounts for (192-193)):**
   A nominal expression (DP, pronoun, reflexive) can only be intensified adnominally if it can be contrasted with other expressions in the context in which it is found.

Some of the consequences of the present proposal for linguistic theory in general are listed in (196) and in (197) particular consequences for the analysis of Modern Danish can be found.

(196) **Consequences for binding theory:**
   a. Intensification and binding are independent modules of the grammar.
   b. Binding is purely syntactic phenomenon.
   c. The unified account of possessive and argument reflexives is a strong argument in favor of nominal approaches to binding and against current predicate-centered approached (e.g. Reinhart and Reuland (1993)).
   d. “Doppelgänger-effects” (statue-readings, qua-sentences, strict reading in VP ellipsis, etc.) and anti-reflexivity (the triggering of adnominal intensification of reflexives with certain predicates) can be unified as cases of adnominal intensification falling under the contrastiveness condition.

(197) **Consequences for analysis of Modern Danish (and similar languages):**
   (i) Simple reflexives (e.g. Dan. sig ‘REFL’) are not anti-local (discussed in more detail in chapter 4).
   (i) Complex reflexives (e.g. Dan. sig selv ‘REFL self) are not mandatorily local.
   (ii) Complex reflexives, e.g. sig selv, are adnominally intensified reflexives.
   (iii) The complex object pronoun ham selv is not a logophor but an adnominally intensified object pronoun.
(iv) The complex subject pronoun *han selv* is not a special kind of anaphor (cf. Bickerton 1986) but an intensified subject pronoun.

(v) The element *selv* ‘self’ is not a reflexivizing particle which falls under binding theory (e.g. Reinhart and Reuland 1993), but an intensifier which falls under the module of intensification (see chapter 2).

(vi) The element *egen* ‘own’ is the suppletive variant of the adnominal intensifier *selv* ‘self’.

(vii) The argument anaphor *sig* ‘REFL’ and the possessive anaphor *sin* ‘POSSREFL’ have the same distribution and can both be accounted for by the same principle A of the binding theory.

As shown above, the contrast-based account intensification proposed in chapter 2 brings out the core common feature of *selv*-adjunction to reflexives (e.g. *sig*) and pronouns (e.g. *ham*), i.e. the contrastiveness condition on intensification. As shown in section 3.3.2 and 3.3.3 of this paper, intensifier-adjunction to reflexives can only take place when the predicate/construction containing *sig/sin*\(^{86}\) allows for contrast with other entities. Likewise, intensifier adjunction to *ham* has a strong tendency to prefer contrastive contexts. Compared with previous analysis of reflexives and pronouns in Danish, the focus-based analysis of intensifier-adjunction proposed in chapter 2 has a better chance at eventually arriving at a unified account of intensified reflexives, e.g. *sig selv*, intensified pronouns, e.g. *ham selv*, and intensified DPs, e.g. *kongen selv* ‘the king himself’. Indeed, it seems to be the failure to treat intensification and binding as separate subsystems of the grammar which has made it impossible for many researchers to even conceive of a unified analysis of the function of *selv* across reflexives, pronouns and DPs.

In chapter 4 a few loose ends will be tied up. That is, the thematic status of simple reflexives with neutral and inherently reflexive verbs will be discussed in greater detail and a late-insertion analysis of reflexives and pronouns, which also accounts for 1\(^{st}\) and 2\(^{nd}\) person

\(^{86}\) As argued in section 3.3.5, the distribution of the intensifier *egen/eget* ‘own’ with possessive pronouns, e.g. *hans egen* ‘his own’, also follow the contrastiveness principle. Due to space limitations this topic cannot be explored in detail here.
forms, is proposed. In chapters 5 and 6 similar approaches to binding and intensification in English and Mandarin Chinese will be put to the test.