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CASE ASSIGNMENT DIFFERENCES BETWEEN DANISH AND SWEDISH

1. Introduction.

In this paper I want to look at one of the classic topics in comparative Scandinavian linguistics: the causative construction with let (1), and relate it to two other variations between Danish and Swedish: verb particle constructions (2) and transitive adjective constructions (3).

(1) a. Da. *Peter lod støvsuge tæppet
       Sw. Peter lät dammsuga mattan
            "Peter let vacuum-clean carpet-the"

    b. Da. Peter lod tæppet støvsuge
       Sw. *Peter lät mattan dammsuga
            "Peter let carpet-the vacuum-clean"

(2) a. Da. *Peter smed ud tæppet
       Sw. Peter kastade bort mattan
            "Peter threw away carpet-the"

    b. Da. Peter smed tæppet ud
       Sw. *Peter kastade mattan bort
            "Peter threw carpet-the away"

(3) a. Da. *Peter var overlegen Martin
       Sw. Peter var överlägsen Martin
            "Peter was superior Martin"

    b. Da. Peter var Martin overlegen
       Sw. Peter var Martin överlägsen
            "Peter was Martin superior"

I will be using the framework of the "Theory of Government and Binding" (Chomsky (1981),(1986a,b)), but the various terms and analyses will be explained as they are introduced.[1]

1.1 Attempting to Relate Several Differences.

I will try to account for all three variations as different consequences of just one underlying difference between Danish and Swedish. I assume, with Chomsky (1986b), Platzack (this volume) and others, that various surface differences may reasonably be expected to result from fewer underlying differences, and that it is highly desirable thus to be able to unite separate surface phenomena under one generalisation.

The general idea behind this is that in order to explain the ease and speed with which a child acquires his first language, one might suppose that not all knowledge of the language in question has to be acquired, but that the child possesses part of this knowledge already at birth. The innate part of language knowledge will obviously be the same for all human beings, and thereby this theory also gives an explanation of language universals.

The fewer differences there are between languages, the less data the child will have to encounter in order to be able to choose between alternative possibilities, and the fewer data that have to be encountered to acquire any given language, the better is our account for the speed and ease of first language acquisition.

In order to test the theory outlined above, linguists should therefore try to account for as many surface differences by positing as few underlying ones as possible. Languages like Danish and Swedish seem to be particularly promising as a testing ground for this theory, because already at the surface the differences are few, leading us to expect that the underlying differences are very few indeed. In this particular case, my analysis will predict that a child will only have to be acquainted with one of the three sets of data to be able to derive the relevant facts of the two other sets.

1.2 Abstract Case and Thematic Roles.

The analysis will crucially rely on the notion of abstract case. The three constructions may be subsumed under the following two schemata:

(4) a. ... [$_{VP}$ V X NP]   * in Da., OK in Sw.
    b. ... [$_{VP}$ V NP X]   * in Sw., OK in Da.

I will assume that (4a) is the basic configuration, and that in Danish the NP is forced to move in order to get case, whereas in Swedish the NP cannot move as it would get case twice. Before going into the details of this analysis in the three sections on the individual constructions, I will describe more closely the concepts of thematic roles and of abstract case,

which between them have taken over what used to come under
case, with respect to semantic properties (thematic roles) as
well as syntactic/morphological properties (abstract case).

Thematic roles are assigned to NPs (except expletive NPs),
and account for the interpretation of the NP in question in
relation to the whole proposition, e.g. in John reads a book,
John is the AGENT or the reader, and a book is the THEME.
Thematic role assignments are noted above the examples with
arrows and "th" (cf. (5) below).

Abstract case is called abstract, because although in some
languages (e.g. Icelandic, German) it may be visible, it does
not have to be visible. Even in languages with no morphological
case marking (leaving aside genitive) outside the pronominal
system, like Danish and Swedish, it is assumed that every NP
that is phonetically realised needs abstract case. Furthermore
no NP may have more than one case.

There is a distinction between structural and inherent case.
Structural case is assigned under certain structural conditions
(e.g. the case assigner must be adjacent to and govern the case
receiver). Inherent case is what certain NPs (e.g. the second
object in a double object construction) are supposed to have,
as discussed in Chomsky (1981), in order to explain both why
they can occur in non-case assigned position (they already have
inherent case), and why they cannot occur in case assigned
positions (they would then have more than one case). Inherent
case is further discussed in section 7, throughout the other
sections only structural case will be referred to. Structural
case is assigned under the following circumstances (among
others): A finite verb assigns case to its subject. A preposi-
tion assigns case to its complement. A verb (whether it is
finite or not) assigns case to its object, but only if it
assigns a thematic role to its subject (this is called Burzio's
generalisation, after Burzio (1986) (see also footnotes 2 and
8)). So-called partitive case may only be assigned to
indefinite NPs and does not fall under Burzio's generalisation
(following Belletti (1986)). Case assignments are noted below
the examples with arrows and "c" (cf. (5) below).

2. Let-causatives.

As already stated above, one of the differences between
Danish and Swedish is the one given in (5):

(5) Da.   th ←⌐   ⌐———→ th
      *Peter lod [$_{VP}$ støvsuge tæppet]
        c ←⌐   -c

Sw.   th ←⌐   ⌐———→ th
   Peter lät [$_{VP}$ dammsuga mattan]
     c ←⌐   ⌐———→ c
"Peter let [vacuum-clean carpet-the]

My analysis is that only in Swedish does carpet get case
from vacuum-clean, whereas in Danish there is no such case
forthcoming. In both cases Peter is the AGENT of let, and car-
pet is the THEME of vacuum-clean.

(6) shows, according to this analysis, that it is possible,
in fact necessary, for the NP to move in Danish, as it must be
assigned a case. If an NP does not receive case in its original
position, it will have to move to a place where it may be
assigned one. One such place is next to the main verb let:

(6) Da.   th ←⌐   ⌐———→ th
      Peter lod [$_{VP}$ tæppet$_i$ [$_{VP}$ støvsuge t$_i$]]
        c ←⌐———→ c

Sw.   th ←⌐   ⌐———→ th
   *Peter lät [$_{VP}$ mattan$_i$ [$_{VP}$ dammsuga t$_i$]]
     c ←⌐———→ c   ⌐———→ c
"Peter let [carpet-the [vacuum-clean t]]"

When an NP moves it leaves behind a coindexed trace. The index-
ing may be considered as a "forwarding address", so that e.g.
the thematic role assigned by vacuum-clean to its object posi-
tion may reach carpet. Now the sentence is OK in Danish, carpet
receives case from let and thematic role from vacuum-clean via
its trace. In Swedish however, (6) is ruled out, as carpet now
receives two cases: one directly from let, and one through its
trace from vacuum-clean.

The assumption that the same construction has different case
assigning properties in the two languages is also compatible
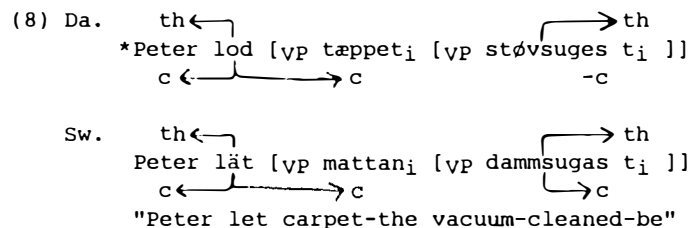with the embedding under let of passive and of ergative verbs.

The standard analysis of passive (Chomsky (1981)) is that
the object is prevented from getting case, and therefore it
needs to move somewhere else to get case. There is only one
such place possible in an example like (7), viz. the subject
position (which therefore has to be empty from the start).

(7) En.   ⌐——→ th
      [The carpet]$_i$ was cleaned t$_i$
        c ←⌐   ⌐→ c

As can be seen in (7), the reason why the passive ending
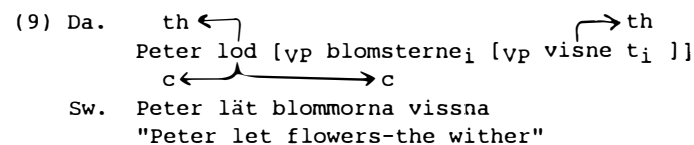prevents case from reaching the object position is that the

ending needs case itself (as suggested by Roberts (1987)).

Consider now a passive verb embedded in a <u>let</u>-construction. This is only possible in Swedish, which fits in with the analysis above, as the passive ending needs case from the embedded verb, and so far we have assumed that only in Swedish does the embedded verb assign case, in Danish this is somehow prevented. Thus (8) is parallel to (5):

(8) Da. th⟵⌐   ⌐⟶th
       *Peter lod [$_{VP}$ tæppet$_i$ [$_{VP}$ støvsuges t$_i$]]
          c⟵⌐_____⟶c   -c

    Sw.   th⟵⌐   ⌐⟶th
       Peter lät [$_{VP}$ mattan$_i$ [$_{VP}$ dammsugas t$_i$]]
          c⟵⌐_____⟶c   ⌐⟶c
       "Peter let carpet-the vacuum-cleaned-be"

Ergative verbs (also called unaccusative verbs) are verbs which are assumed to have only objects and no subjects, and therefore, following Burzio's generalisation, they do not assign case to their objects (as they do not have a subject, they do not assign a thematic role to their subject). As it receives no case in object position, the object then has to move to the empty subject position in order to get case. There are various ways to tell ergative verbs apart from intransitive verbs (which are verbs with subjects but no objects), cf. Burzio (1986), suffice it to assume here that ergatives use <u>være</u> ("be") as auxiliary verb in Danish, whereas intransitives use <u>have</u> ("have") (further discussion in Vikner (1986)).

In both languages we get the following as the only possibility for embedding an ergative verb:
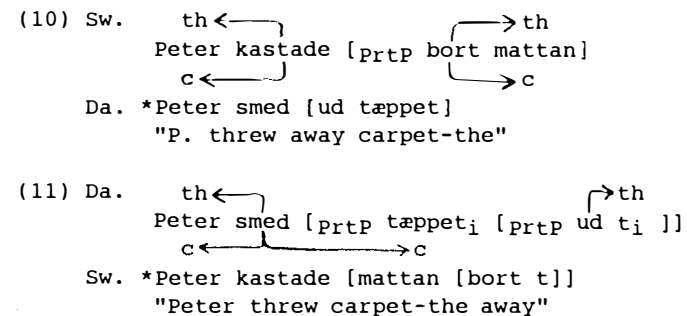
(9) Da. th⟵⌐   ⌐⟶th
       Peter lod [$_{VP}$ blomsterne$_i$ [$_{VP}$ visne t$_i$]]
          c⟵_____⟶c
    Sw. Peter lät blommorna vissna
       "Peter let flowers-the wither"

This is possible even in Swedish, as opposed to (6), as here there is no way for the trace to receive case, as <u>wither</u> never assigns case.[2]

3. Verb Particles.

The particle construction has the same pattern as the <u>let</u>-causative: in Swedish the particle assigns case and the NP therefore follows it, (10), in Danish the particle does not assign case, and the NP has to move so it can receive case

directly from the verb, (11)[3]. If the NP moved in Swedish, it would receive two cases, one directly and one via its trace. Compare (10) with (5), and (11) with (6):

(10) Sw.   th⟵⌐   ⌐⟶th
         Peter kastade [$_{PrtP}$ bort mattan]
           c⟵⌐   ⌐⟶c
     Da. *Peter smed [ud tæppet]
         "P. threw away carpet-the"

(11) Da.   th⟵⌐   ⌐⟶th
         Peter smed [$_{PrtP}$ tæppet$_i$ [$_{PrtP}$ ud t$_i$]]
           c⟵_____⟶c
     Sw. *Peter kastade [mattan [bort t]]
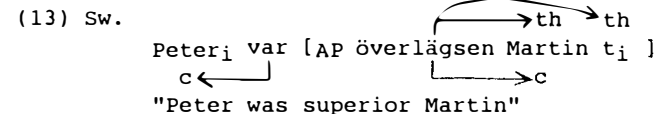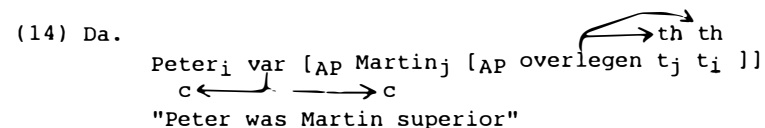   "Peter threw carpet-the away"

4. Transitive Adjectives.

Following Platzack (1982) I will assume the adjectives discussed below to be transitive, in the sense that they involve two NPs. Assuming the underlying structure to be like (12), this will be prevented as a surface structure in both languages for two reasons: there is no subject, and as adjectives do not normally assign case, neither <u>Peter</u> nor <u>Martin</u> get case.

(12) Da.   ⌐⟶th ⟶th
         *e var [$_{AP}$ overlegen Martin Peter]
         "was superior Martin Peter"
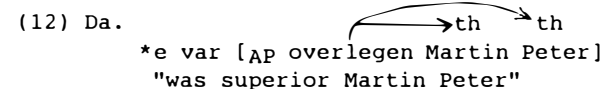
In Swedish <u>Peter</u> moves to the subject position, and this suffices for the adjective to be able to assign case to <u>Martin</u>:

(13) Sw.   ⌐⟶th ⟶th
         Peter$_i$ var [$_{AP}$ överlägsen Martin t$_i$]
           c⟵_____⌐   ⌐_____⟶c
         "Peter was superior Martin"

In Danish this would not suffice, as the adjective would not be able to assign case to <u>Martin</u>. Therefore <u>Martin</u> has to move too, to the immediate right of the verb. I assume here that <u>be</u> may assign case, depending on other conditions of the grammar (further discussion in Vikner (1986))[4]:

(14) Da.   ⌐⟶th th
         Peter$_i$ var [$_{AP}$ Martin$_j$ [$_{AP}$ overlegen t$_j$ t$_i$]]
           c⟵_____⌐ _____⟶c
         "Peter was Martin superior"

If adjectives may assign case (in certain constructions, in Swedish), then why is (15) impossible in both languages:

(15) Da.   →th
    *Der var [AP syg Peter]
    c←⎦   -c
  Sw. *Det var [AP sjuk Peter]   ("There/It was ill Peter")

The answer is to be found in the interaction between Burzio's generalisation and the idea of the adjective and the verb being reanalysed as one constituent, [verb + adjective]. In (13) Martin receives case from the adjective because this adjective obeys Burzio's generalisation, it has formed what we might call a complex verb which assigns a thematic role to its subject, and therefore it can assign case to its "object" (cf. footnote 8). In (15) however, whether or not the adjective and the verb are reanalysed as one constituent, there is no thematic role assigned to the subject (the dummy element "there/it"), and therefore there is no case forthcoming to the structural object position. The result in both languages is that the NP has to move to get case[5], e.g. to the subject position:

(16) Da.   →th
    Peter$_i$ var [AP syg t$_i$]
    c←⎦
  Sw. Peter var [sjuk t]   ("Peter was ill")

much like the way Peter moved to the subject position in (13) and (14).

5. Analysis: Reanalysis.
Consider again the schemata of (4), repeated as (17):

(17) a. ... [VP V X NP]   * in Da., OK in Sw.
    b. ... [VP V NP X]   * in Sw., OK in Da.

where sections 2-4 have given further details on the following instantiations:

(18) section topic   V is   X is

    2   let-causatives   let   any verb
    3   verb particles   any verb any particle
    4   transitive adj. be   any trans. adj.

The central assumption of this paper is that V and X are

reanalysed as one constituent in some sense, and that this constituent comes under Burzio's generalisation in Swedish, but not in Danish.

From some points of view the reanalysed constituent [V + X] is not a regular constituent, e.g. V and X may reanalyse as one constituent even when they are not next to one another, cf. (6), (11), and thus this may correspond to what Baker (1985) calls "abstract incorporation".

Reanalysis is assumed to take place even in Danish for reasons connected with the let-construction, as X here is a verb that has lost the thematic role that it would normally assign to its subject. This is something that does not normally happen (cf. John(AGENT) read the paper(THEME) vs. *There(-th) read the paper(THEME)). That no thematic role of the kind normally assigned to a subject is possible in the let-construction can be seen by comparing the two verbs hope and arrange. The former needs to be able to assign its subject thematic role to its subject position, the latter has no such requirements. As passive subjects do not have a subject thematic role (cf. (7)), hope may not be passivised:

(19) a. Da. *Det blev håbet at ...
    b. Da. Det blev arrangeret at ...
            "It was hoped/arranged that ... "

When embedding these two verbs under let, we get parallel results:

(20) a. Da. *Peter lod håbe at ...
    b. Da. Peter lod arrangere at ...
            "Peter let hope/arrange that ... "

which can be explained if we assume that in let-constructions where there is no subject of the embedded verb present, the embedded verb has no subject thematic role at all. (Argument from Grewendorf (1983)). It is actually possible for the verb embedded under let to have a subject, but in that case the embedded constituent is not a VP but an S:

(21) Da.   th←⎤   th←--------⎤ →th
    Peter lod [S Martin [VP støvsuge tæppet]]
    c←——⋀   →c   →c
  Sw. Peter lät [Martin [dammsuga mattan]]
    "Peter let Martin vacuum-clean carpet-the"

The analysis may now be summarised as follows (with reference to (17) and (18)):

(22) Reanalysis
    a. X "loses" the thematic role it would normally have
       assigned to its subject.
       (applies in both Da. and Sw.)
    b. The subject thematic role of V suffices for Burzio's
       generalisation, i.e. X may assign case in spite of
       having no subject thematic role itself.
       (applies only in Sw.)

A further argument for the reanalysis analysis is that the case assigned by X is the case that V is able to assign, rather than the case that X would otherwise have assigned (see footnotes 2 and 3).

There are two reasons for writing "loses" in (22a) in quotes. One is that in the cases where X corresponds to a verb particle or a transitive adjective, X never had any subject thematic role to assign. The other is that, even when X is a verb embedded under let, it is not always obvious that it is actually lost:

If the subject thematic role was lost, it should not be possible to refer to it in any way, e.g. neither by an adverbial, (23-24), nor with a so-called agent by-phrase, (25-26).

In (23) we see that it is possible to have the adverbial with his fingers referring to the subject of the verb embedded under let, i.e. eat, in a construction where the constituent embedded under let is an entire S rather than a VP (i.e. a construction where reanalysis does not apply, cf. (21)):

(23) Da. Peter lod [$_S$ Martin spise frølårene med fingrene]
     Sw. Peter lät [$_S$ Martin äta grodlåren med fingrarna]
        "Peter let Martin eat frog's-legs-the with fingers-the"

(24) shows that with just a VP embedded under let (i.e. the case where (22) applies), this subject-related adverbial becomes much less acceptable (if not completely unacceptable), indicating that the subject thematic role of eat is lost:

(24) Da. ??Peter lod [$_{VP}$ frølårene spise med fingrene]
        "Peter let frog's-legs-the eat with fingers-the"

     Sw. ??Peter lät [$_{VP}$ äta grodlåren med fingrarna]
        "Peter let eat frog's-legs-the with fingers-the"

If we look at the agent by-phrases, we find that there are special cases where the subject thematic role does not seem to have been lost. One is where the agent is pragmatically relevant and perceptible from the resulting state (Information is relevant if it increases the hearer's knowledge of the world in a given situation. See Sperber & Wilson (1986:122, 260 n26))[6]. Thus (25a) is much better than (25b):

(25) a. Da. Han lod kapellet udsmykke af Matisse
          "He let chapel-the decorate by Matisse"
     b. Da. ??Han lod frølårene spise af Peter
          "He let frog's-legs-the eat by Peter"

Another case is the Swedish passive, where the agent by-phrase is completely acceptable (26a), as opposed to the active subject-less variant (26b):

(26) a. Sw. Martin lät huset byggas av Peter
          "Martin let house-the built-be by Peter"
     b. Sw. ??Martin lät bygga huset av Peter
          "Martin let build house-the by Peter"

6. Reflexives in the Let-construction.

In the remainder of this paper, particular versions of the let-construction will be considered, to show that the analysis given in section 5 will be able to give a satisfactory account even for these more complex cases. First we will look at the occurrences of non-thematic ("semantically/thematically empty") reflexives in the let-construction.

On the surface an example like (27) is completely parallel to e.g. (6):

(27) Da. Peter lod sig overtale
        "Peter let REFL persuade"

i.e. one might expect Peter to get a subject thematic role from let and sig to get the object thematic role from persuade. There are however good reasons for not accepting this analysis, and for assuming instead that Peter has the object thematic role of persuade and sig does not have any thematic role at all. One argument is connected with the following examples:

(28) a. Da. Peter lod sig overtale
     b. Da. ??Peter lod sig spise
     c. Da. ??Peter lod sig læse
         "Peter let REFL persuade/eat/read"

(29) a. Da. ??Kødet lod sig overtale
     b. Da. Kødet lod sig spise
     c. Da. ??Kødet lod sig læse
         "Meat-the let REFL persuade/eat/read"

(30) a. Da. ??Bogen lod sig overtale
     b. Da. ??Bogen lod sig spise
     c. Da. Bogen lod sig læse
            "Book-the let REFL persuade/eat/read"

There is a clear correlation between the subject and the
thematic role assigned by the embedded verb to its object: the
judgments in e.g. (29) are related to the fact that <u>meat</u> is a
lot better with the object thematic role from <u>eat</u> than from
<u>persuade</u> or <u>read</u> (you can eat meat, but not really persuade it
or read it), but this could perhaps be explained by the subject
and the reflexive being coreferential. More importantly, the
subjects in (29) and (30) (as opposed to the subject in (28))
are not of the kind that would normally be able to receive a
subject thematic role from <u>let</u>, compare (31b) to (29b):

(31) a. Da. Peter lod Martin overtale sig
            "Peter let Martin persuade REFL (=Peter)"
     b. Da. *Kødet lod Peter spise sig
            "Meat-the let Peter eat REFL"

Therefore I conclude that the subject thematic role of <u>let</u>
has disappeared (it has been absorbed by the reflexive[7]), and
that the surface subjects of (27-30) have the thematic role
assigned by the embedded verb to its object. The underlying
structure of (27) is therefore assumed to be the following
(valid for both Sw. and Da.):

(32) Da.   ┌────→th
        e lod sig [$_{VP}$ overtale Peter]
        "e let REFL persuade Peter"

This gives rise to (33) in Danish:

(33) Da.   ┌───→th
        Peter$_i$ lod sig [$_{VP}$ overtale t$_i$]
        c←──────∧──→c
        "Peter let REFL persuade"

<u>Peter</u> moves to get case (as usual)[8] but as <u>sig</u> receives the
case that <u>let</u> assigns to the right, <u>Peter</u> has to move to the
subject position, and furthermore this empty subject position
must be filled.
    The Swedish version of (33) needs to have a passive form of
the verb embedded under <u>let</u>: Here our starting point is also
(32), and we also need the subject position to be filled. In
Swedish, however, the verb under <u>let</u> assigns case, and this

case must be prevented from reaching the trace of <u>Peter</u> (other-
wise <u>Peter</u> would receive two cases, one directly as subject of
a finite verb and one through its trace), and this is done by
inserting the passive ending:

(34) Sw.   ┌──────→th
        Peter$_i$ lät sig [$_{VP}$ övertalas t$_i$]
        c←────∧──→c   └──→c
        "Peter let REFL persuaded-be"

    Given that in Sw. the verb embedded under <u>let</u> may assign
case, we might expect it to be possible to leave <u>Peter</u> at the
end of the sentence, as long as there is something else in the
subject position:

(35) Sw.   ┌──────→th
        *Det lät sig [$_{VP}$ övertala Peter]]
        c←──┘ -c   -c
        "It let REFL persuade Peter"

This is not a grammatical sentence, however, and to explain
this we may again appeal to Burzio's generalisation: <u>let</u> does
not assign a thematic role to its subject (nor does the subject
receive a thematic role from <u>persuade</u>, i.e. the subject does
not receive a thematic role from any part of the reanalysed
verb [<u>let</u> + <u>persuade</u>]), and therefore <u>let</u> does not assign case
to its object position, and therefore the reanalysed verb does
not assign case to its object position, and thus <u>Peter</u> receives
no case.
    The following example is only possible in Swedish:

(36) Sw.   ┌──────→th
        Peter$_i$ [$_V$ lät övertala sig] t$_i$
        c←──────────┘   └──→c
        "Peter let persuade REFL"

Following the arguments above (and in footnote 7), it is
assumed that <u>sig</u> needs to absorb a subject thematic role, and
following the analysis in section 5, it is only in Swedish that
the reanalysis is carried out to the extent that the subject
thematic role of <u>let</u> also counts for the embedded verb. Conse-
quently it is only in Swedish that one would predict it to be
possible for <u>sig</u> to be next to the embedded verb as well as to
<u>let</u> itself (34). In Danish, the reanalysis is more restricted,
the subject thematic role of <u>let</u> does not count as such for the
embedded verb, and therefore (36) is not possible in Danish,
only (33) is.

The idea that sig needs to absorb a subject thematic role is also crucial in explaining why (37) is impossible in Swedish:

(37) Sw.
　　　　　　　　　　　|　———→th
　　　　*Peter$_i$ lät sig övertala sig t$_i$
　　　　　c ←——⋀——→c　　　　└——→c
　　　　"Peter let REFL persuade REFL"

This is not impossible for reasons of case, as it is possible for the embedded verb to assign case even when separated from let by sig (cf. that the passive ending gets case in (34)). However, it is not possible for both sigs to absorb a subject thematic role, as there is only one, the one of let, which presumably is absorbed by the first sig, leaving the second sig without a subject thematic role to absorb, ruling the sentence out. (The other subject thematic role, the one of persuade, is absorbed by other mechanisms in this construction, cf. (22a)).

<u>7. Double Objects in the Let-construction.</u>
　　In this section I will consider what takes place when the verb embedded under let is a verb that allows for two objects[9], and I will also consider the interaction between let, double object verbs, and sig.
　　I will assume that in a double object construction, only the object next to the verb receives structural case, whereas the other object receives inherent case somehow (inherent as it may have case just by virtue of being the second object)[10]:

(38) Da.　　th←——⌒——→th　　↘th
　　　　　Peter anbefalede Martin hotellet
　　　　　c ←————⋀———→c　　　ic
　　　　"Peter recommended Martin hotel-the"

The structural case is the one that is absorbed by the passive ending, explaining why only the object receiving structural case may be the subject in a passive construction:

(39) a. Da.　　　　　　⌒——→th　↘th
　　　　Martin$_i$ blev anbefalet t$_i$ hotellet
　　　　　c ←——┘　　└——→c　　ic
　　　　"Martin was recommended hotel-the"

　　b. Da.　　　　　　　⌒——→th　↘th
　　　　*Hotellet$_j$ blev anbefalet Martin t$_j$
　　　　　c ←——┘　　　└—→c　-c　ic
　　　　"Hotel-the was recommended Martin"

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In (39a) the trace of Martin does not receive any case, as this is prevented by the passive ending, and thus every NP has just one case. In (39b) hotel receives two cases, a structural one directly and the inherent one via its trace. As one of the two cases thus clashing is an inherent case, this may not be enough to explain the ungrammaticality of this example (e.g. Belletti (1986) does not assume that this kind of case clash should be ruled out). What does rule out (39b) is that Martin does not get any case at all, the case going to this position having been taken over by the passive ending. So what is wrong with (39b) is not so much that one NP has more than one case, but that another NP has less than one case[11].

　　Let us now consider this construction when it is embedded under let. The underlying structure is assumed to be as in (40), but this cannot be a well-formed surface structure as Martin does not receive any case, for the by now familiar reasons (cf. sections 2 and 5):

(40) Da.　　th←┐　　　　⌒———→th　↘th
　　　　*Peter lod [$_{VP}$ anbefale Martin hotellet]
　　　　　c ←——┘　　　　　-c　　ic
　　　　"Peter let recommend Martin hotel-the"

It is however possible to save (40) along lines parallel to (39a), i.e. the NP which ought to receive structural case moves somewhere else to receive it. Not surprisingly, Martin may thus move so that it can receive case from let[12]:

(41) Da.　　th←┐　　　　　　⌒——→th　↘th
　　　　Peter lod [$_{VP}$ Martin$_i$ [$_{VP}$ anbefale t$_i$ hotellet]]
　　　　　c ←——⋀——→c　　　　　　　　ic
　　　　"Peter let Martin recommend hotel-the"

If we try to move hotel to the position next to let, instead of Martin, not only does hotel then get two cases, but Martin is also left caseless:

(42) Da.　　th←┐　　　　　　⌒——→th　↘th
　　　　*Peter lod [$_{VP}$ hotellet$_j$ [$_{VP}$ anbefale Martin t$_j$]]
　　　　　c ←——⋀——→c　　　　　　　-c　ic
　　　　"Peter let hotel-the recommend Martin"

It is however possible to move both NPs, provided Martin is in the position next to let (43), and not hotel (44), as Martin needs to be in this position to get case, whereas hotel does not need case, as it has inherent case via its trace[13]:

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(43) Da.   th⟵⎤   ⎡⟶th th
     ?Peter lod [$_{VP}$ Martin$_i$ hotellet$_j$ [$_{VP}$ anbefale t$_i$ t$_j$]]
        c⟵⎤⋀⟶c   ic
     "Peter let Martin hotel-the recommend"

(44) Da.   th   ⎡⟶th th
     *Peter lod [$_{VP}$ hotellet$_j$ Martin$_i$ [$_{VP}$ anbefale t$_i$ t$_j$]]
        c⟵⎤⋀⟶c   -c   ic
     "Peter let hotel-the Martin recommend"

Let us now consider what happens when a non-thematic _sig_
occurs next to _let_, taking over from section 6 the assumptions
that this reflexive absorbs the subject thematic role of _let_
and also receives the case that _let_ assigns to its right. I
assume the underlying structure of such a construction to be:

(45) Da.   ⎡⟶th   ⟶th
     *e lod sig [$_{VP}$ anbefale Martin hotellet]
        c⟵⎤   -c   -c   ic
     "e let REFL recommend Martin hotel-the"

As a surface structure, this is ungrammatical for two reasons:
there is no subject, and _Martin_ and _sig_ receive no case. As
with (32) and (33), this can be saved by moving _Martin_ so that
it gets case and so that the sentence has a subject:

(46) Da.   ⎡⟶th ⟶th
     Martin$_i$ lod sig [$_{VP}$ t$_i$ [$_{VP}$ anbefale t$_i$ hotellet]
        c⟵⎤⋀⟶c   ic
     "Martin let REFL recommend hotel-the"

If _hotel_ moves rather than _Martin_, then although the sentence
will have a subject, it will still be ungrammatical, as _Martin_
will receive no case:

(47) Da.   ⎡⟶th ⟶th
     *Hotellet$_j$ lod sig [$_{VP}$ t$_j$ [$_{VP}$ anbefale Martin t$_j$]
        c⟵⎤⋀⟶c   -c   ic
     "Hotel-the let REFL recommend Martin "

As with (43) and (44), it is possible to have both of the NPs
in question move, as long as one of them moves into the subject
position. As _Martin_ needs case and as the only case available
is in the subject position, it is necessary that _Martin_ moves
to this position (48), and not _hotel_ (49)[14]:

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(48) Da.   ⎡⟶th th
     ?Martin$_i$ lod sig [$_{VP}$ t$_i$ hotellet$_j$ [$_{VP}$ anbefale t$_i$ t$_j$]]
        c⟵⎤⋀⟶c   ic
     "Martin let REFL hotel-the recommend"

(49) Da.   ⎡⟶th th
     *Hotellet$_j$ lod sig [$_{VP}$ t$_j$ Martin$_i$ [$_{VP}$ anbefale t$_i$ t$_j$]]
        c⟵⎤⋀⟶c   -c   ic
     "Hotel-the let REFL Martin recommend"

Reasons of space prevent me from going into the details of
similar constructions in Swedish. Suffice it to say that (40)
would be possible in Swedish, and that provided the embedded
verbs are changed into passive, (41), (43), and (46), (48) are
also possible, as would be expected.

8. Conclusion.
     I have tried to show that all the variations between Danish
and Swedish discussed in sections 2-4 can be seen as conse-
quences of one fundamental difference: In Swedish it is pos-
sible for _let_ and the embedded verb, for a verb and its parti-
cle, and for _be_ and an adjective to be reanalysed, i.e. to
behave as one verb. Although Danish also shows some degree of
reanalysis, none of the three pairs of elements behave as one
verb.
     In Swedish, these three pairs each behave as as one verb,
both with respect to case assignment (this is why NPs may
remain in their original final position) and with respect to
thematic roles (explaining why the non-thematic reflexive _sig_,
which needs to absorb a subject thematic role, may also occur
in this final position). In Danish these three pairs do not
behave as one verb, forcing the complement NPs to move in order
to receive case, and prohibiting the non-thematic reflexive
occurring after the verb embedded under _let_.
     Under the further assumption of inherent case, the distribu-
tional facts arising from the interaction between the _let_-
construction, the non-thematic reflexive, and the double object
construction, may also be accounted for under this analysis, as
shown in sections 6 and 7.

Notes.

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2. Given the analysis to be suggested in section 5, it is actually not expected that _wither_ will not be able to assign case in Swedish. According to Burzio (1986), the reason why ergatives can not assign case is that they assign no subject thematic role, but in my analysis the subject thematic role of _let_ counts for the embedded verbs in Swedish (not in Danish).

In the passive and ergative constructions with expletive subjects, the NPs in object position do not seem to receive normal case (as predicted by Burzio's generalisation, as the subjects do not receive any thematic roles). It is possible, however, for the NPs in object position to receive partitive case (which requires that the NPs are indefinite (Belletti (1986)): Da. Der blev støvsuget tre tæpper (*tæpperne), Sw. Det dammsugades tre mattor (*mattorna) ("There/It was vacuum-cleaned three carpets (*carpets-the)") and Da. Der visnede tre blomster (*blomsterne), Sw. Det vissnade tre blommor (*blommorna) ("There/It withered three flowers (*flowers-the)").It is therefore unexpected that partitive case is not possible in a Da. _let_-construction: ??Han lod (der) støvsuge tre tæpper ("He let (there) vacuum-clean three carpets"), given that this construction otherwise has much the same effect as passivisation in Danish, as it takes away from vacuum-clean its subject thematic role, and thereby its ability to assign case to its object position.

As _let_ is a potential assigner of "normal" case (as opposed to partitive case), it would seem that the embedded verb may assign either this case (only in Sw. and if it normally assigns case) or nothing at all, but never partitive.

3. In the particle constructions there are cases where the main verb is an ergative or a passive verb, i.e. a verb which when it has an expletive subject may only assign partitive case (cf. note 2). In these cases the Sw. particle is only able to assign partitive case (just as the main verb in Da. may only assign partitive), suggesting again that the case assigning properties of the main verb determine the properties given to the embedded verb or particle.

Also for these examples with partitive, the analysis suggested in section 3 seems to give the right predictions, as Sw. only allows the (partitive) NP after the particle, whereas Da. only allows it between the verb and the particle:

The ergative examples are: Sw. Det kom in en man (*mannen), Da. *Der kom ind en mand/manden ("There came in a man/man-the"), Sw. *Det kom en man/mannen in, Da. Der kom en mand (*manden) ind ("There came a man/man-the in"), and the passive ones: Sw. Det kastades bort tre mattor (*mattorna), Da. *Der blev smidt ud tre tæpper/tæpperne ("There thrown-was away three carpets/carpets-the"), Sw. *Det kastades tre mattor/mattorna bort, Da. Der blev smidt tre tæpper (*tæpperne) ud ("There thrown-was three carpets/carpets-the away").

4. The optionality of this case from _be_ may be used to account for why (14) is also possible in Swedish. This is not a very satisfactory account, however, as in a Sw. version of (14) Martin would get case from the adjective (as in (13)) and therefore has no reason at all to move up next to the verb, indeed it might be expected not to be able to move any further, cf. note 10.

5. As partitive case does not come under Burzio's generalisation, it should be possible for _be_ to assign partitive case even when its subject does not get a thematic role, e.g. Da. Der var [en mand [syg t]] ("There was a man ill"). Given the analysis, it is also predicted that Da. *Der var [syg en mand] ("There was ill a man") is ungrammatical. It is unexpected, however, that the facts of Swedish here are the same as in Danish, and not the reverse: Sw. Det var [en man [sjuk t]] ("It was a man ill"), *Det var [sjuk en man] ("It was ill a man").

6. Carl Vikner has pointed out to me a similar set of facts from French passives. A form like La porte est ouverte is ambiguous between an event ("The door is opened") and a state ("The door is open"), but if a by-phrase is added, it can only be interpreted as an event: La porte est ouverte par la concierge ("The door is opened by the porter"). However, if the relation between the passive subject and the agent (in the by-phrase) is perceptible and relevant after the event has taken place, then the sentence may (also) be interpreted as a state: Ce tableau est peint par Picasso ("This painting is (being) painted by Picasso").

7. There are other reasons for assuming that the non-thematic reflexive _sig_ has this effect of absorbing the thematic role that the subject would otherwise have received. Consider the difference between Da. Peter brændte sig ("Peter burned REFL") on the one hand and Da. Peter brændte Martin ("Peter burned Martin") and Da. Peter brændte sig selv ("Peter burned REFL") on the other: Only in the last two is there any intention predicated of _Peter_, in the first the burning must have been by accident.

This can be explained if we assume that intention can only be predicated of an AGENT: The two last examples have straightforward thematic role assignments (_Peter_ is AGENT, _Martin/sig selv_ is THEME); whereas in the first _sig_ absorbs the role of AGENT (as well as the case otherwise assigned to the object), and _Peter_ (which is the object and therefore has to move to the subject position to get case) receives the role THEME. More details of this analysis are given in Vikner (1985:14-15, 50-51).

8. In the discussion of (33-35) and also in the discussion of (13-16) above, it is necessary to make some extra assumptions to avoid a problem with regard to Burzio's generalisation. This generalisation distinguishes between two possibilities: either the subject thematic role is assigned (and then the verb may assign case to its object position) or the subject thematic role is not assigned (no case to object position). Taken as it stands this will not allow a distinction between the cases with expletive subjects ((15), (35)) and the cases with subjects with thematic roles via their traces ((13-14), (33-34)) as neither of the two types have subjects with directly assigned thematic roles (as opposed to e.g. (24)). Thus the prediction so far is that case assignment to the object position is impossible in all six of the cases in question, which is only the desired result for (15) and (35), not for the others.

To assimilate these other four cases to the ones where case assignment to object is allowed I will use the observation made

above that in (13-14) and (33-34) the subject does receive a thematic role, only not of the kind required. What Burzio's generalisation requires in order to allow case assignment is that the subject receives a particular kind of thematic role, the subject thematic role, i.e. the thematic role assigned directly to the subject position. With regard to the reanalysed verbs, we must then ask which of the thematic roles assigned by the two components of the reanalysed verb, V and X, is to count as the subject thematic role. Four situations are possible: 1) V and X both assign subject thematic roles. 2) X assigns a subject thematic role, but V does not. Neither of these two situations will arise here, as the reanalysis always deprives X of its subject thematic role. 3) V assigns a subject thematic role, but X does not. In this case V's subject thematic role counts as the subject thematic role of the reanalysed verb. 4) Neither V nor X assign a subject thematic role. In this case I suggest that the reanalysed verb may accept, for the purpose of Burzio's generalisation, that its subject receives the highest ranking of the remaining thematic roles.

This will allow case assignment in (13-14) and (33-34), as here the subject is filled with an NP with the highest thematic role left. This analysis will also give an answer to why the subject of e.g. (14) must always be interpreted as having the thematic role of the person who is superior to someone, and never as the person to whom someone is superior. Assuming that the former of the two thematic roles described is higher in a hierarchy of thematic roles (as described e.g. by Belletti & Rizzi (1986)), the subject would have to have this higher thematic role in order to allow the verb to assign case to the NP with the other thematic role.

9. Similar facts are analysed in Herslund (1986), but with slightly diverging grammaticality judgments, and in a different theoretical framework (Relational Grammar).

10. Inherent case is also different from structural case (incl. partitive), in that, as it is not assigned in a structural position as such, it is "portable", i.e. NPs with inherent case may move around in the sentence, as long as they avoid case assigned positions. Normally structural (and partitive) case assignment requires the NP to be in the position where the case is assigned, cf. that note 4 registered a problem with an NP receiving structural case via a trace. This is also a difference between structural case assignment and assignment of thematic roles, the latter are definitely portable.

11. The string of words in (39b) actually has a grammatical but pragmatically rather marked interpretation, viz. "Martin was recommended to the hotel". The structure of this interpretation would not be as in (39b) but rather as in (39a), i.e. Da. Hotellet blev anbefalet t Martin, which is OK for case reasons, but now has Martin in the position to which the thematic role THEME is assigned and the trace of hotel in the position to which the role GOAL is assigned, as opposed to both (39a) and (39b) where Martin is assigned GOAL and hotel THEME.

12. The string of words in (41) also has another interpretation, insofar as Da. anbefale ("recommend") is acceptable with only one object, viz. "Peter let Martin recommend the hotel (to someone)" as well as the given "Peter let (someone) recommend the hotel to Martin". The alternative interpretation has a structure similar to (21), i.e. with an S embedded under let.

If the embedded constituent is an S, then hotel receives structural case (Burzio's generalisation applies, and recommend does assign a thematic role to its subject, Martin), as opposed to if the embedded constituent is a VP, in which case hotel receives inherent case, as shown in (41). Given that only inherent case is portable (cf. note 10), this then predicts that if hotel moves, it can no longer be interpreted as receiving structural case, and therefore Martin can no longer be interpreted as a subject. This thus accounts for the non-ambiguity of (43), as opposed to (41).

13. Though (43) may not be completely acceptable, it is significantly better than (44).

14. Though (48) may not be completely acceptable, it is significantly better that (49).

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