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Argument drop and the Empty Left Edge Condition (ELEC)

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Argument drop is commonly subject to the Empty Left Edge Condition, ELEC, requiring that the left edge of the clause not be spelled out. ELEC can be explained in terms of minimality, as an intervention effect (blocking context-linking of the null-argument). We argue that sensitivity to this effect is the most important ‘pro drop parametric’ factor and that there are no inherent or lexical differences between ‘different types’ of null-arguments. However, we also present striking evidence from Icelandic that emptiness conditions of this sort are operative in PF, a conclusion that suggests that much of ‘syntax’ in the traditional sense is actually morphosyntax or ‘PF syntax’, invisible to the semantic interface.

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1. Introduction*

Argument drop is subject to clause-external restrictions and often also to clause-internal ones. The best known type of clause-internal restrictions is Agr-linking, illustrated in (1) for Italian subject drop and in (2) for object drop in Pashto (modelled on C.-T. J. Huang 1984:536):¹

- (1) a. Parlo islandese.
 speak.1SG Icelandic
 b. Parli islandese.
 speak.2SG Icelandic

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¹ We are adopting the notion ‘linked’ from Deal (2005).

- (2) mā wəxwara
 me.OBLIQUE eaten.3.F.SG
 ‘I ate it.’ (e.g. the apple)

Other languages with Agr-linked (or Agr-dependent) object drop include, for instance, Georgian, Swahili (Y. Huang 2000:54-55) and Chicheŵa, another Bantu language, spoken in Malawi, and to some extent in Zambia and Mozambique (Baker 2001:144f).²

Agr-linked object drop does not seem to be cross-linguistically common (see the overview in Y. Huang 2000:78ff). In contrast, many languages have clause-externally conditioned object drop. This is illustrated in (3) for four such languages (all lacking object Agr); the underlined matrix subjects are either obligatory (3b,c) or possible (3d) antecedents of the null-objects:

- (3) a. *Old Norse* (Sigurðsson 1993:259):
 ... ok munu nú taka ___ óvinir þínir.
 ... and will now take (it) enemies your
 ‘... and your enemies will now take (*your inheritance*).’
- b. *Burmese* (Y. Huang 2000:85):
Hkalei amei ahphyit ___ tinte lou htinte.
 child mother blame (him/her) put that thinks
 ‘*The child* thinks that mom will blame (*him/her*).’
- c. *Imbabura Quechua* (Cole 1987:600):
Juzi nin Marya ___ juyanata.
 Juzi says Marya (him) will-love
- d. *Finnish* (Y. Huang 2000:86):³
Kalle väittää että Pekka uhkaili ___.
 Kalle claims that Pekka threatened (him/...)

In languages of this sort, the silent object is TOPIC-LINKED, as in (3a), ANTECEDENT-LINKED, as in (3b) and (3c), or optionally linked to either an antecedent or a (distinct) topic, as in (3d).⁴ Other languages that have clause-externally linked object drop include Chamorro, Chinese, Hungarian, Japanese, Korean and Thai (Y. Huang 2000:85ff). However, even though referential object

² It should however be noted that it is often difficult to distinguish between incorporated pronominal objects and ‘true’ object agreement in languages of this sort (see the discussion in Baker 2001:145ff).

³ According to Y. Huang (2000), the null-object may either refer to the matrix subject *Kalle* or to some clause-external discourse topic. It should be noticed, however, that Finnish does not allow ‘uncontrolled’ 3rd person subjects in simple matrix clauses (see Holmberg 2005), a fact that would seem to indicate that the ‘uncontrolled’ null-object in this example is arbitrary or accidentally coreferential with a discourse topic.

⁴ Since C.-T. J. Huang (1984, 1989), antecedent-linking is often referred to as control.

drop of this relatively unrestricted sort is more common than often assumed (cf. the discussion in Cummins and Roberge 2005), it seems to have a more limited distribution than referential subject drop. Thus, it is for instance absent from Italian, as illustrated in (4) (example (4a) is from Rizzi 1986:517):

- (4) a. * Mario ha costretto a partire.
 Mario has.3SG forced (me/her/ ...) to leave
 b. * Gianni sa che Maria vide.
 Gianni knows.3SG that Maria (him) saw

Topic-linking and antecedent-linking are two types of CONTEXT-LINKING. It is clear that object drop of the Pashto type in (2) is not only Agr-dependent but also topic-linked. Also, 3rd person subject drop of the Italian type has to link to a discourse topic, usually the closest one (see Grimshaw and Samek-Lodovici 1998, Frascarelli 2007). Linking of 1st and 2nd person pro to the speaker and hearer is also context-linking of sorts. In Sigurðsson (2004a, 2004b), the speaker/hearer features are referred to as the logophoric agent (speaker) and the logophoric patient (hearer), Λ_A and Λ_P for short.⁵ Given these and a Top(ic) feature, in the spirit of Rizzi (1997), the relevant feature content of the CP domain for our purposes is as sketched in (5):

- (5) [_{CP} .. Top ... Λ_A ... Λ_P ... [_{IP} ...

We can now state the CONTEXT-LINKING GENERALIZATION in (6):

- (6) a. Context-linking features of the CP domain include at least Λ_A , Λ_P and Top
 b. Any referential pronoun, overt or silent, positively matches a context-linking CP feature

Thus, the context-linking features of the CP domain enter into two-directional matching relations, one with clause internal elements (that may or may not be spelled-out) and one with clause-external topics and/or participants of the speech event. Context-linking is thus a ‘transitive’ matching relation (where $A \leftrightarrow B$ reads ‘A is matched by B’ or ‘B is interpreted in relation to A’):

- (7) Context \leftrightarrow CP features \leftrightarrow IP-internal elements

On this understanding, all referential argument drop is subject to one of two types of restrictions:

⁵ ‘Lambda’ in line with ‘phi’ and ‘theta’ (but capital Λ to avoid confusion with lambda calculus). As argued in Sigurðsson (2004b), the simple notions speaker and hearer or addressee are too simple and thus misleading, see also below.

- (8) a. context-linking only, or
 b. context-linking *and* some kind of clause-internal restriction

As mentioned above, Agr-linking is the best known type of clause-internal restriction on null-arguments, common for subject drop, less common for object drop. However, null-arguments in many languages are subject to another much more salient clause-internal condition or restriction. We refer to this condition as the EMPTY LEFT EDGE CONDITION, ELEC:

- (9) The left edge of a clause containing a silent referential argument must be phonetically empty (in language or construction X)⁶

ELEC is a salient feature of Germanic null-argument constructions, as illustrated for Icelandic subject drop in (10); the initial dash indicates Spec,CP and the postverbal dash indicates Spec,IP:

- (10) a. ___ Kem ___ til baka á morgun
 come.1SG to back on tomorrow
 ‘I’ll be back tomorrow.’
- b. ___ Kemur ___ enn einu sinni of seint.
 come.2/3SG still one time too late
 ‘You/He/She come(s) too late once again.’
- c. ___ Komum ___ ekki á morgun.
 come.1PL not on tomorrow
 ‘We are not coming tomorrow.’
- (11) a. * **Á morgun** kem ___ til baka.
 on tomorrow come to back
- b. * **Enn einu sinni** kemur ___ of seint.
 still one time come too late
- c. * **Á morgun** komum ___ ekki.
 on tomorrow come not

We pursue the idea that context-linking of null-arguments is generally blocked in Germanic if Spec,CP is lexicalized. This is sketched in (12) for only the Top feature (relevant for 3rd person pro; for 1st and 2nd person pro, the context-linking feature is Λ_A or Λ_P , respectively); SPEC denotes a lexicalized Spec,CP.⁷

⁶ In Kayne’s (2005) approach to ‘principles of pronunciation’, the empty left edge would be a Spec,Phase (whereas a licit overt left edge would be a Spec of some non-phase). One way of unifying our and Kayne’s approaches would be to say that the filled left edges we are studying cannot escape being in Spec,Phase, hence cannot be spelled out.

⁷ For related ideas, see Haegeman (1987, 1990).

- (12) a. * [CP ... Top ... SPEC ... [IP ... Ø ...
 ↑ _____+_____ ↑
 *Top matching byØ
- b. [CP ... Top ... Ø ... [IP ... Ø ...
 ↑ _____ ↑
^{ok}Top matching byØ

We will here study the properties and domain of ELEC and other similar emptiness conditions, above all in the Germanic languages. On the analysis in (12), ELEC is basically an intervention effect. In spite of this ‘syntactic appearance’, there is strong evidence, above all from Icelandic, that emptiness conditions of this sort are *operative in PF*.

We come to two conclusions that are of central theoretical interest and importance:

- A. There are no inherent or ‘lexical’ differences between different types of null-arguments, such as pro and null-topics or null-variables. Rather, the differences between, e.g., pro drop in Romance and many Asian languages and so-called topic drop in Germanic boil down to intervention.
- B. The computation proceeds after transfer to PF, that is, much of ‘syntax’ in the traditional sense is actually morphosyntax or ‘PF syntax’, invisible to the semantic interface.

2. A uniform approach to null-arguments

In the pioneering work of C.-T. J. Huang (1984, 1989), a sharp distinction was drawn between pro drop and ‘topic drop’, and this has since been the prevailing view in generative syntax. Thus, while the silent subject in Romance examples like the Italian ones in (1) above were analysed as pro, the null-subject in Germanic examples like the ones in (10) above and in (13) below were taken to be null-topics (the examples in (13) are from Sigurðsson 1993:254, see also Y. Huang 2000:79-80); the dash indicates the Spec,IP position, whereas the initial position is Spec,CP:

- | | | | | | |
|---------|---------------|---|------|--------|-----------|
| (13) a. | (Ich) kenne | — | das | nicht. | German |
| b. | (Jag) känner | — | det | inte. | Swedish |
| c. | (Ég) þekki | — | það | ekki. | Icelandic |
| | (I) recognize | — | that | not | |

The major reason why silent subjects in examples of this sort were taken to be null-topics was that they are confined to clauses with an empty left edge (Spec,CP) as illustrated in (14) (from Sigurðsson 1993:255):

- (14) a. * Jetzt kenne — das nicht. German
 b. * Nu känner — det inte. Swedish
 c. * Núna þekki — það ekki. Icelandic
 now recognize (I) that not

The generally assumed Government and Binding theoretic analysis (see C.-T. J. Huang 1984, Cole 1987, Sigurðsson 1989, 1993, among many), was that the silent argument is either an empty operator in Spec,CP, or a DP that has been moved into the Spec,CP position and deleted from there:

- (15) a. [CP Op_i ... [IP e_i ...
 b. [CP ~~DP~~_i ... [IP e_i ... (e.g., ~~I~~ kenne __ das nicht)

The prevailing assumption was that the Spec,CP position had to be accessible to the null-topic and hence filling that position with some other element would render the null-topic ill-formed. However, it was never explained why silent topics should differ in this respect from spelled-out (aboutness) topics, which are quite ‘happy’ regardless of whether or not they move to the left edge, as illustrated for Icelandic in (16):

- (16) A: Þarna kemur Ólafur.
 there comes Olaf
 Ba: Ég vil ekki heilsa **honum**.
 I want not greet him
 ‘I don’t want to greet him.’
 Bb: **Honum** vil ég ekki heilsa.
 him want I not greet
 ‘Him, I don’t want to greet.’

The pronoun *honum* ‘him’ is equally topical in (16Ba) and (16Bb). Thus, even though so-called ‘topicalization’ applies to topics (as well as some non-topics), it does not turn anything into topics. Hence, even though Germanic null-topics obviously have to link to an empty Spec,CP position, it cannot be the case that they have to move into Spec,CP ‘in order to become legitimate topics’. A different account of the ungrammaticality of examples like the ones in (14) is thus called for.

On both analyses in (15), the IP-internal subject trace is a variable in the sense of Government and Binding theory (see Chomsky 1982:78ff), that is, an empty [– pronominal] category, whereas the Italian type of subject *pro* was

analyzed as an empty [+ pronominal] category. Accordingly, the Germanic type of null-subjects fell under binding principle C, like R(eferential)-expressions, while Italian *pro* was subject to binding principle B. This approach made the prediction that Germanic null-arguments should be excluded from being A-bound, in accordance with binding principle C, thus crucially differing from pronominal categories, including overt pronouns and Italian *pro*.

It is not clear how this would translate into the minimalism, where the binding theory has been abandoned (see, e.g., Kayne 2002, Zwart 2002, Heinat 2006), and where the properties and distribution of ‘different’ empty categories accordingly cannot be defined or derived in terms of binding principles (or even in terms of only binding as such). Notice also that Germanic null-arguments evidently have all the typical properties of pronominals, and not those of names and other R-expressions, including their referential properties and phi-features, an issue we will return to (in section 5). Their only ‘crime’ is that they are topic-linked pronouns, like most (or all) overt pronouns, for instance the pronouns in (16Ba,b) above.

We will not try to make any sense of the Government and Binding theoretic distinction between null-topics and null-pronouns. Instead, we pursue the ‘obvious’ alternative, namely the UNIFORM APPROACH TO NULL-ARGUMENTS, stated in (17):

- (17) Null-arguments are uniform in the sense that there are no underlying inherent or ‘lexical’ differences between them. The differences between seemingly different types of null-arguments stem from restrictions in the PF component of language, not from the properties of putative ‘lexical zeros’.

Notice that it does *not* follow that null-arguments should always have all the same properties as overt pronouns, they typically do not. Overt pronouns tend to be more specific or ‘bigger’ than null-arguments in the sense that they express some additional properties like Focus or Shifted Topic, not present in corresponding null-argument constructions. Plausibly, a feature structure is the more likely to get partly spelled out the more complex or marked it is, that is to say, the more information it contains (cf. Cardinaletti and Starke 1999).

As a matter of fact, full-fledged pronouns, overt or silent, are not input to the syntactic computation but its output, that is, syntax computes or ‘produces’ pronouns by matching and bundling up features. Thus, the person value of a pronoun is the result of a twofold matching process (as argued in Sigurðsson 2004b). First, an argument or event participant (i.e., θ) is matched against an interpretable clausal P(erso)n head or feature, as being either +Pn or –Pn. Second, +Pn arguments are matched against the above mentioned silent logophoric agent

(‘speaker’) and the logophoric patient (‘hearer’) features in the CP domain, Λ_A and Λ_P :⁸

(18) $\theta \leftrightarrow +/ -P_n$

- (19) a. $+P_n \leftrightarrow +\Lambda_A, -\Lambda_P = 1P$ by computation
 b. $+P_n \leftrightarrow -\Lambda_A, +\Lambda_P = 2P$ by computation
 c. $+P_n \leftrightarrow -\Lambda_A, -\Lambda_P = 3P$ by computation
 d. $-P_n = 3P$ by default

The logophoric agent and patient features may be conceived of as either the actual or the represented (or intended) speaker vs. hearer. If the identity of these speech event participants changes from the actual to the represented speaker and hearer, the reference of the person values changes accordingly. This is what happens in direct speech in languages like English (for a classic discussion of phenomena of this sort, see Banfield 1982):

- (20) a. John said to me that he would vote for me.
 b. John said to me: “**I** will vote for **you**”.

In the direct speech in (20b), the represented speaker and hearer, Λ_A and Λ_P , are identical not with the overall, actual speaker and hearer but with the matrix clause arguments, *John* and *me*. hence these arguments are referred to not by 3rd vs. 1st person, *he/me*, but by 1st vs. 2nd person, *I/you*. Or rather, 1st and 2nd person in the direct speech refer to or match the Λ_A and Λ_P features in their local CP domain, and these logophoric features are in turn identical with the matrix arguments (and not with the overall, actual speaker and hearer). This is sketched in (21), where *i* and *k* are the indexes of the actual speaker and hearer but *j* and *l* the indexes of the logophoric features in the subordinate CP domain, inherited from the matrix arguments:⁹

(21) $[_{CP} \dots \{\Lambda_A\}_i \dots \{\Lambda_P\}_k \dots [_{IP} \dots \mathbf{John}_j \dots \mathbf{me}_l \dots [_{CP} \dots \{\Lambda_A\}_j \dots \{\Lambda_P\}_l \dots [_{IP} \dots I_j \dots you_l \dots$

Importantly, this is *not* extra-syntactic. The same kind of person switch is seen in regular subordination in many languages, including Amharic, Donno So, Navajo, Kannada, Tamil, Hindi, Kurdish, Persian and Punjabi (see Sigurðsson 2004b:235-

⁸ We are abstracting away from number and inclusiveness here (but see the discussion in Sigurðsson 2004b).

⁹ We are not assuming that indexes are syntactic objects but using them for simple expository purposes, to indicate matching relations.

236, 246 n. 40, and the references cited there).¹⁰ In short, the constant referential meaning of 1st and 2nd person is *coreference with their local logophoric features*, Λ_A and Λ_P .¹¹

It is evident that full-fledged pronouns or phi-feature bundles are not elements of the syntax lexicon, that is, they are not syntactic primitives or objects in the numeration. Thus (adopting the general approach in Sigurðsson 2004a, 2004b, 2006a, 2006b), we take an anti-lexicalist approach:

- (22) The inventory of non-computed syntactic objects (the syntax lexicon) contains only abstract features and abstract roots (ROOT₉₉, etc.), subject to matching and bundling up. These bundles of syntactic information do not have any phonological feature values, but may or may not be expressed or represented, more or less accurately, by complex symbols and structures in PF.¹² Thus, the ‘lexicon’ in the traditional sense is not a syntactic but a phonological lexicon, stored on the PF side, where the syntactic message (the output of the computation) gets its arbitrary phonological form.

Thus, in our approach, all pronominal arguments are syntactically computed feature bundles that may or may not be spelled out in PF, depending on PF parametric options and/or language-specific low-level PF spell-out rules and constraints.¹³ In short, the simplest approach, which we adopt here, is that all spell-out morphology and phonology is post-syntactic.

An argument is not a DP or a position in a tree but a set of matched and interrelated features, minimally θ , phi-features, and the logophoric features (Sigurðsson 2004b:226):

¹⁰ This is a very common or even a general trait of Indo-Aryan and Dravidian languages (K.V. Subbarao, p.c.).

¹¹ We say ‘referential meaning’ because at least the second person may be generic.

¹² Splitting morphology between ‘lexical’ roots and functional elements violates Minimal Design (Chomsky’s Strong Minimalist Thesis). Adopting the approach in Sigurðsson (2006a, 2006b), we assume that PF, including morphology, is a complex translation of syntax, i.e., the correlation between the two is not that of a simple one-to-one mapping. In particular, we do not assume any ‘vocabulary insertion’ into syntactic trees nor do we assume that all and only terminal nodes are represented by PF words.

¹³ We assume that all grammar variation is on the PF side (Sigurðsson 2000 and subsequent work). It is of some historical interest to notice that Chomsky considered an approach that is partly similar to the ideas pursued here in the early 1980s, namely that overt pronouns are not part of ‘deep syntax’: “Suppose that a pronoun is simply the ‘spelling out’ of ... *pro*. In other words, at S-structure, we insert the appropriate phonological matrix for a pure pronominal EC ...” (Chomsky 1982:86). Holmberg (2005:560) suggests more or less the same understanding: “Narrow syntax is oblivious to whether pronouns or inflectional affixes do or do not end up being pronounced.” We take one step further by claiming that even silent arguments are not part of ‘deep syntax’ but the output of syntactic matching and bundling up of features. Unfortunately, Chomsky’s suggestion or intuition never became the prevailing understanding in mainstream generative syntax, including his own work.

(23) The minimal referential syntactic argument = $\{\theta \leftrightarrow \phi \leftrightarrow \Lambda\}$

But notice that (specified) sets of this sort are, as already stated, not the input to but the outcome of syntactic matching and bundling up processes. Since arguments do not enter syntax with any fixed feature settings, it is impossible to formulate any generalizations across seemingly different types of null-arguments in terms of inherently differing feature settings like [+/- pronominal]. Arguably, also, ‘pronominal’ is not a primitive of language, that is, it is not visible or accessible to syntax as an object or a unit (as suggested by the fact that ‘pronominal’ gets no interpretation at the semantic interface).

We conclude that Germanic ‘null-topics’ are just ordinary null-arguments, inherently non-distinct from the Romance type of null-arguments. The question that arises, then, is why they are subject to clause-internal restrictions not operative in prototypical pro drop languages of the Romance type. In the next section, we present a brief overview of Germanic argument drop, illustrating that it is generally subject to the Empty Left Edge Condition, ELEC. It should be emphasized, however, that our goal is to develop a general understanding of argument-drop phenomena, and *not* to develop a narrowly grammatical analysis of the details of the null-argument variation found across languages and internally to individual languages. In our view, much of this variation is decided by (strictly speaking) grammar-external phenomena.

3. Germanic argument drop and the ELEC

As has been widely discussed (at least since Ross 1982 and C.-T. J. Huang 1984), referential null-subjects are common in various types of informal written and spoken registers in the Germanic V2 languages, for instance in diaries, various kinds of short messages, and in conversations (mainly in replies to questions).¹⁴ We illustrate this kind of SUBJECT DROP in (24) and (25) for Icelandic:

- (24) A. Hvar er Pétur?
 where is.3SG Peter
 B. Kemur þarna.
 comes.3SG there
 ‘He is coming (there). / Here he comes.’

¹⁴ To an extent the same applies to English (see, e.g., Haegeman 1990, Horsey 1998, Deal 2005), but, for convenience, we exclude English from our discussion.

- (25) a. Ligg á ströndinni og slappa af.
 lie.1SG on beach.the and relax.1SG off
 ‘I’m lying on the beach, relaxing.’
 b. Komum strax.
 come.1PL right-away
 ‘We’ll be there in a minute.’

The agreement morphology is clearly not needed to identify the null-subject, as seen by the simple fact that the Mainland Scandinavian languages allow this type of subject drop, despite not having any verb agreement. Compare (25) to the Swedish (26):

- (26) a. Ligger på stranden och kopplar av.
 lie(s).PRES on beach.the and relax(es) off
 b. Kommer strax.
 come(s).PRES right-away

In one respect, however, there is an interesting difference here between languages with and without verb agreement: Although not needed to identify the silent argument, the agreement constrains or limits its interpretation. Given the right context, the null-subjects in the Swedish (26) can be interpreted as 1st, 2nd, and 3rd, person, singular or plural, although a 1st person reading, especially in the singular, is the salient one in most contexts (cf. Mörnsjö 2002). The interpretation of the silent subjects in the Icelandic examples in (25), on the other hand, is confined to the person/number of the agreement morphology (1SG in (25a) vs. 1PL (25b)).

This is an important fact, not previously pointed out, to our knowledge. It has often been suggested that agreement morphology is in some sense less ‘powerful’ or less ‘pronominal’ in Icelandic than in for instance Italian (e.g., Sigurðsson 1993, partly contra Hjartardóttir 1987, Holmberg and Platzack 1995, Platzack 2004). However, the strict referential limitations imposed by Icelandic verbal agreement in examples like (25), suggests that such approaches have partly been on the wrong track. Rather, by reducing ambiguity, agreement morphology both facilitates and constrains interpretation or identification in both Italian and Icelandic, but it does not have any licensing effect or power in either language. As we will discuss in section 6, though, subject agreement is stronger in Italian than in Icelandic in the sense that it acts, not as a licenser, but as a left edge intervener, thereby blocking referential object pro.

To our knowledge, all modern V2 Germanic varieties that have subject drop of this sort obey the ELEC, that is, the left edge or the Spec,CP of the clause must

be phonetically empty.¹⁵ This was shown in (13)-(14) above for German, Icelandic and Swedish, and is illustrated for Dutch in (27) (from Ackema and Neeleman 2005):

- (27) A: Wat is er met Jan aan de hand?
 what is there with John on the hand
 ‘What is the matter with John?’
 B1: ___ Moet ___ morgen naar de tandarts.
 must tomorrow to the dentist
 ‘He has to go to the dentist tomorrow.’
 B2: *Morgen moet ___ naar de tandarts.
 tomorrow must to the dentist
 ‘He has to go to the dentist tomorrow.’

Regular Conjunction Reduction is generally also subject to ELEC. This is illustrated for Icelandic and Swedish in (28)-(29), respectively:¹⁶

- (28) a. María keypti blaðið en ___ vildi ___ ekki kaupa bókina.
 Mary bought paper.the but wanted not buy book.the
 ‘Mary bought the newspaper, but she did not want to buy the book.’
 b. *María keypti blaðið en **bókina** vildi ___ ekki kaupa.
 Mary bought paper.the but book.the wanted not buy
 c. María keypti blaðið en **bókina** vildi **hún** ekki kaupa.
 Mary bought paper.the but book.the wanted she not buy
- (29) a. Maria köpte tidningen men ___ ville ___ inte köpa boken.
 Mary bought newspaper.the but wanted not buy book.the
 b. *Maria köpte tidningen men **boken** ville ___ inte köpa.
 Mary bought newspaper.the but book.the wanted not buy
 c. Maria köpte tidningen men **boken** ville **hon** inte köpa boken.
 Mary bought newspaper.the but book.the wanted she not buy

As seen, ELEC applies when the second conjunct contains a null-subject, but not when it contains an overt, postverbal one. This might seem to be a matter of course, but we will argue that this is an important observation (see section 5).

V2 Germanic OBJECT DROP is illustrated for German, Icelandic and Swedish in (30)-(32), respectively. The dashes show the empty left edge (Spec,CP) and the canonical object position. As indicated, the subject pronoun is preferably cliticized onto the verb in examples of this sort:¹⁷

¹⁵ West Flemish does not seem to have any subject drop of this sort (Haegeman 1996, Rizzi 2005).

¹⁶ Conjunction Reduction in at least Dutch and German tolerates certain exceptions to ELEC (see te Velde 2006).

¹⁷ Similar types of topic object drop are found in some Romance varieties:

- (30) A: Was meinst du über den neuen Hausmeister?
 what mean you over the new janitor
 ‘What do you think of the new janitor?’
 B: ___ Weiß’ich ___ nicht, ___ hab’ich ___ noch nicht gesehen.
 know’I not, have’I still not seen
 ‘I don’t know (*that*), I have still not seen (*him*).’
- (31) A: Hvað finnst þér um nýja húsvörðinn?
 what think you about new janitor.the
 B: ___ Veit’ég) ___ ekki, ___ hef’ég) ekki séð ___ enn.
 know’I not, have’I not seen yet
- (32) A: Vad tycker du om den nya vaktmästaren?
 what think you about the new janitor.the
 B: ___ Vet’ja(g) ___ inte, ___ har’ja(g) fortfarande inte sett ___.¹⁸
 know’I not, have’I still not seen

Many Scandinavian varieties also have object drop in second conjuncts, under coreference with a an overt object in the first conjunct (cf. Áfarli and Creider 1987, Rögnvaldsson 1990). This CONJUNCT OBJECT DROP, COD, is illustrated in (33). The Icelandic example in (33a) is a recent newspaper headline (mbl.is | 27.12.2005), the Norwegian example in (33b) is from Faarlund et al. (1997:715), and the Swedish one in (33c) is from Egerland (1996:290):

- (33) a. ___ Stal bíl og ___ eyðilagði ___.
 stole car and destroyed
 ‘Stole a car and destroyed *it*.’
 b. Han hogg juletre og ___ selde ___ i byen.
 he cut-down Christmas-tree and sold in town
 ‘He cut down a Christmas tree and sold *it* in town.’
 c. Han tog boken och ___ läste ___.
 he took book.the and read
 ‘He took the book and read *it*.’

-
- (i) a. Vi en la televisión. Quiteño Spanish, Ecuador
 saw in the television Suñer and Yépez (1988:513)
 ‘I saw it/them[–anim] on television.’
 b. Ya le alcanzo. River Plate Spanish
 right-away you.DAT reach Masullo (2003)
 ‘I’ll get it for you right away.’

¹⁸ However, object drop is much more marked in the second clause than in the first one in Icelandic and Swedish (even unacceptable to some speakers). In general, dropping HUMAN objects is more marked than dropping NON-HUMAN objects in both languages, but other factors are probably also involved.

Similar instances of Conjunct Object Drop were frequent in Old Italian (see Egerland 1996:284ff), and can even be sporadically found in Modern Italian. The Modern Italian example in (34) is from Egerland (1996:285); the dash indicates the canonical preverbal object clitic position:

- (34) Lo baciai e ___ abbracciai.
 him I-kissed and I-embraced
 'I kissed him and embraced *him*.

COD is also found in, e.g., Polish and Russian (see McShane 2005).

Both these object drop types, the general type and COD, observe the ELEC in the Germanic V2 languages. This is illustrated for the general type in (35)-(37) (see also Sigurðsson 1993:254-255):

- (35) a. (Das) kenne'ich ___ nicht. German
 b. (Det) känner'ja(g) ___ inte. Swedish
 c. (Það) þekki'ég) ___ ekki. Icelandic
 (that) recognize'I not
- (36) a. * Jetzt kenne'ich ___ nicht. German
 b. * Nu känner'ja(g) ___ inte. Swedish
 c. * Núna þekki'ég) ___ ekki. Icelandic
 now recognize'I (that) not
- (37) a. * Ich kenne ___ nicht. German
 b. * Jag känner ___ inte. Swedish
 c. * Ég þekki ___ ekki. Icelandic
 I recognize not

As illustrated for COD in (38), both subjects and non-subjects in the left edge of the second conjunct render the null-object illicit; the first dash indicates the left edge (Spec,CP), the second one indicates Spec,IP, the third dash shows the canonical object position, and the fourth one the canonical position of the adverb *síðan* 'then, later on':

- (38) a. Þeir kysstu hann fyrst og ___ föðmuðu ___ síðan
 they kissed him first and embraced (they) (him) then
 b. * Þeir kysstu hann fyrst og **síðan** föðmuðu ___
 they kissed him first and then embraced (they) (him) ___
 c. * Þeir kysstu hann fyrst og **síðan** föðmuðu þeir ___
 they kissed him first and then embraced they (him) ___
 d. * Þeir kysstu hann fyrst og **þeir** föðmuðu ___ síðan
 they kissed him first and they embraced (him) then

We will return to the properties of ELEC (in section 5), but before doing so, we need to take a look at more argument drop types that are sensitive to similar restrictions.

4. More cases of left edge sensitive argument drop

Chinese *subject drop* may either be topic-linked only, as in (39), or antecedent-linked ('controlled'), as in (40). Both examples are from C.-T. J. Huang (1989:187,193):

(39) (Ta) kanjian (ta) le.
 (he) see (he) PERF
 'He saw him.'

(40) Zhangsan shuo ___ hen xihuan Lisi.
 Zhangsan say very like Lisi
 'Zhangsan said that he liked Lisi.'

In contrast, Chinese *object drop*, as in (41) "must refer to the discourse topic, but not to the matrix subject" (C.-T. J. Huang 1989:188). That is, it must not be 'controlled' or, in our terms, antecedent-linked:

(41) Zhangsan shuo Lisi hen xihuan ___.
 Zhangsan say Lisi very like
 a. 'Zhangsan₁ said that Lisi₂ liked *him*₃.'
 b. * 'Zhangsan₁ said that Lisi₂ liked *him*₁.'

In this respect, Chinese object drop differs from object drop in languages like Korean and Imbabura Quechua. Reconsider the Imbabura Quechua example in (3c) above = (42):

(42) Juzi nin Marya ___ juyanata.
 Juzi says Marya (him) will-love

In Government and Binding theory approaches, this kind of difference was seen as an argument that the Chinese object drop type involved topic drop, whereas languages like Imbabura Quechua were assumed to allow 'genuine' object pro (Cole 1987). On an approach along these lines, Finnish, in contrast, would be a language with two different types of null-objects, that is, null-topics as well as pro (given the analysis in Y. Huang 2000:86). Reconsider the Finnish example in (3d) = (43):

- (43) Kalle väittää että Pekka uhkaili ____.
 Kalle₁ claims that Pekka₂ threatened (him_{1/3})

A double analysis of this sort was pursued for Old Norse in Sigurðsson (1993). As discussed above, however, assuming inherent or ‘lexical’ differences between occurrences of zero pronouns is not an option to us. A different approach to this cross-linguistic variation is thus called for.

According to the Context-Linking Generalization in (6) above, any referential pronoun, overt or covert, positively matches a silent context-linking CP feature, for instance Top. We thus consider ‘control’ or antecedent-linking of 3rd person null-arguments to be just a subcase of a more general topic linking. One possibility would be to allow the null-argument to link to the matrix Top feature across an overt antecedent, as sketched in (44) for the Quechua example in (42) above:

- (44) [CP ... Top ... [IP Juzi_i ... [CP [IP Marya ... Ø_i ...
 ↑ _____ ↑
Top matching by Ø

This is a crossover configuration, so if this is what is going on in languages that allow antecedent-linking, we have to assume that such languages can in some cases relax crossover restrictions, at least when the initial or topmost member of the ‘crossover chain’ is silent. As evidenced by (41b), this option is not available in Chinese.

Alternatively, the subordinate CP has its own Top feature, matching the overt antecedent, as illustrated in (45):

- (45) [CP ... Top ... [IP Juzi_i ... [CP ... Top ... [IP Marya ... Ø_i ...
 ↑ _____ ↑ ↑ _____ ↑
Top matching by Ø

If so, the two readings of (41) get the following analyses:

- (46) [CP ... Top ... [IP Zhangsan₁ ... [CP ... Top ... [IP Lisi₂ ... Ø₃ ...]]] cf. (41a)
 ↑ _____ ↑ ↑ _____ ↑

- (47) * [CP ... Top ... [IP Zhangsan₁ ... [CP ... Top ... [IP Lisi₂ ... Ø₁ ...]]] cf. (41b)
 ↑ _____ ↑ ↑ _____ ↑

That is, the matrix-subordinate Top↔Top matching is disturbed by an intervening coreferential subject in the matrix Spec,IP in (47) as opposed to (46), where the null-object is not coreferential with the matrix subject. If so, Chinese has an IP left edge effect under coreferentiality, whereas Imbabura Quechua

imperatives (more commonly) otherwise allow overt subjects. This is illustrated in (51)-(52) for English and French:

(51) Take three eggs. (***You**) beat __ well while someone else mixes the flour and the butter.

(52) Prenez trois oeufs. (***Vous**) déposez __ dans un bol. (***Vous**) battez __ doucement.²²
 take three eggs. you break into a bowl. you beat gently

Thus, ROD generally observes an EMPTY SUBJECT CONDITION, ESC, reminiscent of the other empty left edge phenomena we have been looking at.

Icelandic has a rich system of imperative structures, thus bearing in an interesting way on ESC, so we will study Icelandic ROD more closely in the next subsection. Before turning to Icelandic, it is however worth noticing that referential null-objects seem to be generally acceptable under *strong deixis*, referring to objects present in the real world situation of the utterance, as in warning and instructing signs, instructions on bottles and other kinds of packagings, ‘motherese’ instructions, and so on:

- (53) a. Here, read __!
 b. Open __ carefully.
 c. Shake __ well before opening __.
 d. Wet paint. Do not touch __.
 e. Police line. Do not cross __.

DEIXIS OBJECT DROP of this sort is found even in those languages that do not allow ROD. Expectedly, strong deixis facilitates context-linking in null-argument constructions. In section 6, we will briefly address the question of why this Deixis Object Drop and ROD are more widespread than other types of object drop.

5. The emptiness conditions are operative in PF

Recall our analysis in (12a) = (54) of violations against ELEC in Germanic as minimality violations or an intervention effect:

(54) * [CP ... Top ... SPEC ... [IP ... Ø ...
 ↑ + ↑
 *Top matching by Ø

²² Provided by Yves Roberge.

The lexical material in Spec,CP, here simply denoted as SPEC, intervenes between the silent Top feature of the CP domain and the IP-internal (3rd person) null-argument, thereby blocking Top matching by \emptyset .²³

It is a matter of debate whether or not the imperative verb raises into the CP domain, across Top (cf. Jensen 2003 vs. Platzack and Rosengren 1997). Thus, even for V2 Germanic, it is also unclear whether the imperative subject raises into Spec,CP.²⁴ If it does, then the Empty Subject Condition on Recipe Object Drop might be just a subcase of the general ELEC. However, in the absence of clear evidence, we do not take a stand on the issue here. For our purposes, it is sufficient that overt subjects in imperative ROD clauses evidently render the object drop ungrammatical. We illustrate this for Icelandic in (55):

- (55) a. Skerið (*þið) ___ í litla bita.
cut.2PL (*you.PL) in small pieces
'Cut in small pieces.'
- b. Skerið (**þið**) þau í litla bita.
cut.2PL (you.PL) them in small pieces
'(You) cut the them in small pieces.'

Regardless of the exact position of the verb and the subject, we can analyze the Empty Subject Condition on ROD as an intervention effect, in a parallel fashion as the general ELEC in V2 Germanic:

- (56) * [CP ... Top ... **SUBJ** ... \emptyset ...
 ↑ ↑
 + +
 *Top matching by \emptyset

Thus, we seemingly have a syntactic account of ESC and of ELEC in general. Notice also that there are structural constraints on the empty left edge, that is, ELEC does not simply require that the 'initial phonological stuff' of an utterance not be spelled out, as illustrated in (57):

- (57) a. Nein, ___ kenne'ich ___ nicht.
b. Nej, ___ känner'ja(g) ___ inte.
c. Nei, ___ þekki'é(g) ___ ekki.
no, recognize'I not

²³ Recall that the relevant context-linking features of 1st and 2nd person pro are the 'speaker' and 'hearer' features, Λ_A and Λ_P . Many languages and/or constructions allow either only 1st and 2nd person pro (successful Λ_A - or Λ_P -matching) or only 3rd person pro (successful Top-matching).

²⁴ We do not consider infinitive ROD here, since subjects are in any case disallowed in most infinitives in most languages, in spite of well-known exceptions, for example in Hungarian and Icelandic (see Dalmi 2005).

However, if left edge emptiness conditions are clear cut syntactic conditions, then it is remarkable that overt objects are not constrained by any conditions of this sort. In accordance with the Context-Linking Generalization in (6), overt referential 3rd person pronouns must also match Top, but they are obviously not ‘disturbed’ by overt left edge elements. We just saw this in (55b) for Icelandic imperatives, and the same fact was illustrated for potential Conjunction Reduction structures in Icelandic and Swedish in (28c) and (29c). The same holds for objects in potential object drop constructions. Consider for instance the unacceptability of the null-objects in (37c,d) = (58a,b), and compare it to the grammaticality of the corresponding overt pronouns in (59):

- (58) a. * Þeir kysstu hann fyrst og síðan föðmuðu þeir
 they kissed him first and then embraced they (him) —
 b. * Þeir kysstu hann fyrst og þeir föðmuðu síðan
 they kissed him first and they embraced (him) then
- (59) a. Þeir kysstu hann fyrst og síðan föðmuðu þeir **hann**
 they kissed him first and then embraced they him —
 b. Þeir kysstu hann fyrst og þeir föðmuðu **hann** síðan
 they kissed him first and they embraced (him) then

This would seem to suggest that ELEC and ESC are not really syntactic but rather due to some performance or ‘stylistic’ conditions applying in PF. As a matter of fact, Icelandic ROD is sensitive to reduction of the imperative subject, taking place in shallow phonology. We present the facts showing this below.

The basic 2nd person singular imperative of most Icelandic verbs is formed on the basis of the infinitive, by cutting the infinitival suffix *-a*. This is illustrated for two verbs in (60):

- (60) a. Infinitive *brjóta* ‘break’ *fara* ‘go’
 b. Basic 2SG imperatives
 (poetic and biblical language) %*brjót* (*þú*) %*far* (*þú*)

We use the percent sign to indicate that the basic 2SG imperative is confined to solemn language. In language use of this sort, an overt full subject pronoun is optional, as indicated in (60b).

In ordinary language use, written or spoken, the normal form of the 2SG imperative is a cliticized form, based on the basic imperative plus a reduced form of the 2SG pronoun *þú* ‘you’, for instance /brjót+þú/ = *brjöttu* ‘break-you’ and

As seen, the more reduced the *subject* is, the more acceptable the *silent object*. Notice in particular that the plural *??brjótiði* in (62b) is more marked than the singular *brjóttu* in (63b). The reason why is evidently that the plural clitic gets a secondary (trisyllabic) stress, whereas the singular clitic gets no such stress (Icelandic having a strict first syllable stress pattern, with no stress on the second syllable and a secondary stress on the third syllable). That is, the difference in acceptability between the plural and the singular seems to have a purely *phonological* source. Moreover, if the vowel of the singular clitic disappears, *due to hiatus*, then ROD is possible.

(64) ... þrjú egg ... Brjótt' — í skál og ...
 three eggs break.IMP-CL_{2SG} into bowl and ...

Notice that the form of the imperative *brjótt'*, [prjɔuht], is distinct from the basic imperative *brjót*, [prjɔu:t], i.e., it has evidently arisen through cliticization of the subject and subsequent truncation of the vocalic part of the clitic:

(65) /brjót+þú/ → *brjóttu* → *brjótt'*

In other words, the subject *is* there, in the syntax, but it must ‘keep a low profile’ *in prosody*.

We conclude that the emptiness conditions studied here are processing limitations, operative in PF rather than in narrow syntax.

6. Concluding remarks

The conclusion or result that empty left edge conditions on referential null-arguments are PF conditions may seem remarkable. However, on the anti-lexicalist, computational approach to pronouns, taken here, this is what one would expect. Recall that in our approach pronominal arguments are syntactically computed feature bundles that may or may not be spelled out in PF, depending on PF parametric options and/or language-specific low-level PF spell-out rules and constraints. The left edge conditions we have been studying here are PF constraints of this sort.

Speaking in extremely general terms, we have here been following a long tradition in focusing on the conditions on silence, rather than on the conditions on sound, as it were. In Sigurðsson (2004a), however, it is suggested that we should take exactly the opposite view:

Lexicalization is arguably the last resort whenever a meaningful feature cannot be conveyed in a message by any other means than the costly means of overtly expressing some item that carries the feature. Thus, instead of looking for a ‘license’ to stay empty a category is ‘happy’ with whatever ‘excuse’ it has not to get lexicalized. This is the general program we should pursue, I believe. (Sigurðsson 2004a, n. 27, p. 254)

At some level, language use is subject to AVOID SPELL-OUT:²⁸

- (66) Avoid spelling out any feature or element X of language. In other words, do not express X unless you have to (for linguistic or extra-linguistic reasons).

If so, the left edge phenomena we have been studying here are not really conditions on silent arguments. Rather, lexicalized or filled left edges force the spelling-out of arguments that would otherwise have been ‘happily silent’:

- (67) A referential argument must be spelled-out in a clause with a phonetically filled left edge (where ‘left edge’ varies across languages and constructions).

We might refer to this as the Filled Left Edge Trigger. For expository purposes, however, we have here opted for talking about left edge emptiness conditions on null-arguments instead.

On the present approach, much of the cross-linguistic distribution of overt and silent arguments is accounted for in terms of ‘leftish’ phonological or lexical intervention. Thus, the Italian type of subject agreement can be analyzed as having the special property of being a PF intervener, as opposed to agreement in the Germanic languages.²⁹ It follows that referential null-objects are excluded in Italian, as we saw in (4) above, and as further illustrated in (68):³⁰

- (68) * Ha costretto ___ a partire.
has.3SG forced to leave

In this language type, then, the subject agreement intervenes between the null-object and the context-linking features in the CP domain, thereby blocking the null-object from successfully matching Top or Λ_A/Λ_P .

Like other referential null-arguments, Italian pro is context-linked (Frascarelli 2007). In addition, its interpretation is usually constrained and facilitated by Agr, much as the interpretation of Icelandic null-subjects (as we

²⁸ Cf. ‘Avoid Pronoun’ in Chomsky (1981:65). See also, much more generally, Grice (1975, 1978).

²⁹ In the approach pursued by Platzack (2004), Agr is an incorporated pronoun in Italian as opposed to Icelandic.

³⁰ In a language like English, the overt subject acts as an intervener.

discussed with respect to (25) in section 3).³¹ In neither language, however, is Agr a licenser, null-arguments in general not being licensed but ‘non-blocked’. Italian Agr is instead an intervener.

Recall, that Italian allows Recipe Object Drop. In addition, it has Deixis Object Drop. That is, it is like English in accepting both these types of referential object drop. We illustrate this in (69)-(70):³²

(69) ... tre uova ... Rompere in una scodella. Sbattere con cura.
 three eggs break.INF into a bowl. beat.INF with care

(70) Vernice fresca. Non toccare.
 paint fresh. not touch
 ‘Fresh paint. Do not touch.’

Here, there is no intervening agreement morphology.

In both these object drop types, a large amount of information is given in the utterance context. Plausibly, the pressure to violate Avoid Spell-Out increases the less context information one has, formal written language scoring lower on the ‘context information scale’ than most other registers. If so, the explanation of why these types are cross-linguistically more common than other object drop types is partly linguistic (absence of intervention) and partly communicative.

Given that both ELEC in general and the (perhaps more specific) Empty Subject Condition on Recipe Object Drop are processing limitations, operative in PF, it might seem unexpected that they can be analyzed in terms of minimality, as intervention effects on feature matching. However, as has been extensively argued by Sigurðsson (e.g. in 2006a, 2006b), PF (including morphology) is clearly much more ‘syntactic’ than usually assumed. It is evidently a highly sophisticated system that is able to ‘see’ syntax and partly operates in a ‘syntactic manner’, with abstract feature values and feature matching processes, even though it takes place after transfer (from Narrow Syntax to the interfaces) and therefore operates on structures and elements that are no longer in sight for the semantic interface. That is, as easily observable language variation would seem to suggest, the computation proceeds on the PF side.

³¹ However, this is not always the case. Silent second person singular subjects may have generic reading, as in (i), provided by Verner Egerland:

(i) Giri a destra.
 turn.2SG to right
 ‘You turn to the right. / One turns to the right.’

³² Examples provided by Guiseppe Longobardi and Roberta D'Alessandro, respectively.

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such as *ha* ‘have’, as well as the preposition *med* ‘with’, and it assigns accusative case to the DP.

The outline of the paper is as follows: In section 2 I demonstrate the properties of Construction I and Construction II. The purpose is to show similarities and differences between the two constructions. A brief overview of earlier work on the constructions is also given. The focus of section 3 is Construction II (cf. (2b)). I will show that the subject in this type of sentences is clausal, and that there is a range of readings for the “missing” predicate, corresponding to a set of verbs that are usually referred to as light verbs. I also propose licensing and identification mechanisms for this null element. In section 4 I discuss properties of the *med*-phrase ‘with-phrase’, which may replace the subject in (2b), if combined with an expletive *det* ‘it’ as subject:

- (3) *Det är omoralisk-t med två älskare.*
 it is immoral-neut with two lovers
 ‘It’s immoral to have two lovers.’

Section 5 contains a summary and a conclusion.

2. Two “disagreement” constructions

The agreement pattern illustrated in (2a) and (2b) is not exclusive to Swedish, but found also in e.g. Norwegian.¹ It has been the subject of a vivid discussion in e.g. Wellander (1949, 1973), Heinertz (1953), Telemann (1965, 1969), Widmark (1966, 1971), Faarlund (1977), Malmgren (1990), [1984], Hellan (1986), Källström (1993), and Telemann & al (1999:3). (For an overview, see Källström (1993).) More recently Enger (2004) has discussed the construction in Norwegian, and Josefsson (2006) from the point of view of Swedish. One of Enger’s main points is that there is no real difference between constructions I and II. Enger also argues that the neuter agreement in constructions of this type is due to less degree of individuation of the subject. Thus, the agreement in question is default.

One of the main points of Josefsson (2006) was that the “disagreement construction” in question should be divided in two separate ones, each with distinct properties. I have called them Construction I and Construction II. The difference boils down to the presence of an implicit argument – usually an EXPERIENCER or AGENT – in the subject of Construction II sentences; such an argument is absent in Construction I. There are basically four ways in which Construction I (cf. (2a)) and Construction II (cf. (2b)) differ: a. The subject of

¹ Pereltsvaig (2006) discusses a similar construction in Russian.

Construction II can be paraphrased by an infinitival phrase, which is not possible for the subject of Construction I, b. Construction I cannot be paraphrased by expletive *det* ‘it’ + a *med*-phrase (*with*-phrase), which is possible for Construction II (cf. (3) above), c. Definite subjects are ungrammatical in Construction I, whereas they are allowed in Construction II (though marginally, a fact that will be discussed in detail below), and d. The subject of Construction I disallows attributive adjectives, whereas this is grammatical for subjects in Construction II. An overview of these differences are given in Figure 1:²

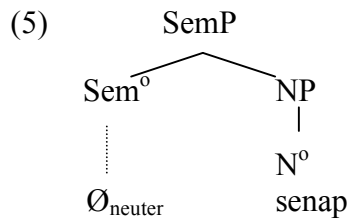
	Construction I	Construction II
Subject paraphrased as an infinitival phrase	a <i>Senap är gul-t</i> . mustard is yellow-neut ≠ <i>Att ha senap är gul-t</i> . ‘To have mustard is yellow.’ (non-sense)	<i>Två älskare är omoralisk-t</i> . two lovers is immoral-neut = <i>Att ha två älskare är omoralisk-t</i> . ‘To have two lovers is immoral.’
Subject paraphrased with <i>det</i> + <i>med</i> -phrase	* <i>Det är gul-t med senap</i> . it is yellow-neut with mustard (non-sense)	<i>Det är omoralisk-t med två älskare</i> . it is immoral-neut with two lovers ‘It’s immoral to have two lovers.’
Definite subjects	* <i>Senap-en är gul-t</i> . mustard-common.def is yellow-neut	<i>Väska-n på ryggen är modern-t i år</i> . bag-common.def on back.the is modern-neut this year ‘Its modern to have the bag on the back this year.’
Attributive adjectives	* <i>Fransk senap är gult</i> . French.common mustard is yellow-neut	<i>Två franska älskare är omoralisk-t</i> . two French lovers is immoral-neut ‘It’s immoral to have two French lovers.’

Figure 1. A survey over the differences between Construction I and Construction II.

In previous studies (Josefsson 1999, 2006) I have argued that Construction I contains a null pronoun in the topmost projection of the subject noun phrase. This pronoun is responsible for the neuter agreement on the predicative adjective. The structure is thus parallel to the construction illustrated in (4a), in which an overt pronoun, *hon* ‘she’ occupies the topmost position of a DP, preceding the definite article.³ Josefsson (1999, 2006) refers to the pronoun *hon* in (4a) as a prenominal apposition.

² From Figure 1 it should be clear that both the Swedish typical example *Ärter är gott* ‘Peas is good construction’ and the corresponding Norwegian one *Pannekaker er godt* ‘Pancakes is good’ are Construction II sentences.

³ It should be pointed out that there is no intonation break between the pronoun and the rest of the subject in (4), which implies that *den nya professorn* does not have an apposition reading.



What is important about (5) is that the neuter feature is not a property of the noun itself, but part of the extended projection containing the noun.⁵ This explains why the subject in a Construction I sentence can take neither definiteness inflection nor an adjectival modifier (cf. Figure 1). If a definiteness feature would be present on the lexical head, yielding **senapen* (mustard.def.common) ‘the mustard’, used in Construction I, this feature would also require the presence of a grammatical gender feature, maybe only for the sake phonology. (The definiteness feature in non-plural is always marked for grammatical gender, which means that the definiteness suffix on nouns cannot be spelled out unless a gender feature is present.) A definite noun inflected for common gender would thus cause a gender conflict within the noun phrase – the upstairs projection, the SemP, would carry the neuter feature, whereas the downstairs projection, the DP/NP, would carry a common gender feature – causing the derivation to crash. (For a more detailed account, see Josefsson 2006.⁶)

Assuming that adjectival agreement, at least in the non-plural, is marked for grammatical gender, a similar gender conflict as the one described above will arise if an attributive adjective is merged. **Fransk senap är gul-t* (French-common mustard is yellow-neut) is thus out, in my view because the common gender feature on the attributive adjective *fransk* clashes with a gender feature hosted in the SemP.⁷

⁵ A similar proposal has been made in Dahl (2000). Dahl uses the term referential gender, instead of semantic gender.

⁶ An alternative worth considering would be to assume that the features hosted in the downstairs projection, i.e. NP in (5), could not percolate, and thus that the features of the upstairs projection, i.e. the SemP, would override any features further down in the tree. Independent evidence indicates that this is not to the case, see Josefsson (2006) for more discussion.

⁷ An alternative explanation for the ungrammaticality of **Fransk senap är gul-t* (French mustard is yellow-neut) could be that the adjective would block the reading of ‘unbounded substance’, since it would induce a kind reading where boundaries are assumed: ‘the French kind of mustard’, vs. ‘other kinds of mustard’. According to some speakers a non-head like *eko-* ‘ecological’ induces a similar kind of ungrammaticality: **?Ekosenap är gul-t*, which would be ungrammatical for the same reason; *eko-* would induce a kind reading, hence also presuppose boundaries.

The SemP in (4a) and (5) is located in the left periphery of the noun phrase. Within the clausal domain the left periphery of the CP is the locus of speaker-oriented adverbials, according to Cinque’s functional sequence of adverbials (Cinque 1999). The pronoun *hon* ‘she’ in (4a) and the neuter feature in (5) are in a sense speaker-oriented too, since the pronoun/pronominal feature adds a speaker’s dimension to the individual/entity denoted by the noun. In (4a) the professor is specified as a female, and (4b) mustard gets a mass reading. These readings are not predetermined by the nouns themselves; the natural gender or sexus of a professor cannot be deduced from the noun *professor*, a fact that shows that the feature FEMALE is added as an optional feature to the derivation. The adding of *han* ‘he’ and *hon* ‘she’ in this position – or nothing – is thus due to the mind and the intention of the speaker. For (4b) a bounded reading can be obtained if the definite article or a definite demonstrative is added, *den där senapen* ‘that mustard’. According to this view, countability and uncountability are not inherent properties of nouns; in most cases in actual use we treat *senap* ‘mustard’ as a mass noun and e.g. *dog* as a count noun, but this is not predetermined in the lexicon.

So far I have discussed the fact that definite subjects and adjectival modifiers are disallowed in Construction I subjects. Figure 1 lists two more differences between Construction I and Construction II: Construction II subjects may be paraphrased by an infinitival phrase, and by a *med*-phrase (*with*-phrase) + expletive *det*, possibilities that are unavailable for Construction I sentences. These properties will be discussed further in sections 2 and 3.

It should be pointed out that not all scholars agree that Construction I and II are two different constructions, for instance not Enger (2006). Drawing on Widmark (1966), Enger (2004) argues that the agreement in (2a) is an instance of semantic agreement. What surfaces as a subject is a noun with a gender that is different from the usual one, neuter. This “gender switch” corresponds to a different reading, where the subject is understood to have “a low degree of individuation” (Enger 2004:26). However, neuter agreement can neither show up on attributive adjectives nor on simplex nouns. (6) is, in other words, ungrammatical, which is problematic for Enger’s analysis. (Note that *matematik* is a common gender noun.)

(6) **rolig-t matematik*
 fun-neut mathematics

cf. *rolig-Ø matematik*
 fun.common mathematics
 ‘fun mathematics’

Another drawback in Enger's analysis is that a subject denoting a SUBSTANCE as in (2a) rejects all kinds of definite inflection, in Construction II contexts as well as in other contexts:

(7) a **Senap-et/* **senap-en* *är gul-t.*
mustard-def.neut/mustard-def.common is yellow-neut.

b **det gul-a senap-et*
def.neut yellow-agr mustard-def.neut

cf. *den gul-a senap-en*
def.common yellow.agr mustard-def.common
'the yellow mustard'

c **Ge mig senap-et.*
give me mustard-def.neut

cf. *Ge mig senap-en.*
give me mustard-def.common
'Give me the mustard.'

Enger does not comment on the impossibility of adding attributive adjectives, such as *fransk/franskt* to the subject noun phrase in Construction I in (2a). However, he explains the fact that only predicative adjectives can have what he claims to be a default gender, by appealing to Corbett's Agreement hierarchy. This hierarchy basically states that languages are more apt to allow no agreement or default agreement on predicative adjectives than on attributive ones (cf. Corbett 1991). The main problem with Enger's approach is that neuter is not the default gender, neither in Swedish, nor in Norwegian, the language on which he bases his assumptions. (For a discussion on default gender assignment in Norwegian, see Trosterud 2001.) We have good reasons to assume that default agreement ("retreat to the general case", in terms of Distributed Morphology, see Halle & Marantz (1993)) is $-\emptyset$ in Swedish. One piece of evidence pointing in this direction is that predicative agreement in the plural in the northern Swedish dialects is $-\emptyset$, not $-t$.⁸ Secondly, Corbett's agreement

⁸ Example (1c), see (1') below, would have a \emptyset agreement inflection in Northern Swedish:

(1) c *Bilar-na/hus-en* *är grön-a.* Standard Swedish
car-def.common.pl/house-def.neut.pl is green-pl
'The cars/houses are green.'

(1') *Bilar-na/hus-en* *är grön- Ø.* Northern Swedish
car-def.common.pl/house-def.neut.pl is green-pl
'The cars/houses are green.'

hierarchy does not explain agreement patterns; it merely describes cross-linguistic facts. The question why “default” agreement should be allowed on predicative adjectives but not on attributive ones remains unanswered in Enger’s analysis.

3. Construction II

3.1 The subject is clausal

The DP *två älskare* ‘two lovers’ is the surface subject in (2b). I will claim that the DP is not really a subject, but rather an object, embedded in a clausal structure, which, in turn, is used as a subject.⁹

The first argument is that the subject can be paraphrased by an infinitival phrase, where the DP shows up as the syntactic object:

- (2) b *Två älskare är omoralisk-t.*
 [two lovers]_{COMMON,PL} be.pres immoral-neut
 ‘To have two lovers is immoral.’

- (8) *Att ha två älskare är omoralisk-t.*
 to have two lovers is immoral-neut
 ‘To have two lovers is immoral.’

(8) shows that the subject in (2b) has a propositional reading. In earlier versions of generative theory, Construction II was analyzed in terms of pruning or deletion:

- (2b’) *Att ~~ha~~ två älskare är omoralisk-t.*

Free or unrestricted deletion/pruning of this kind is of course unappealing. Furthermore, as Enger (2004) points out, an important question remains with a deletion analysis, namely the question of what verb is deleted. In many cases different verbs could be supplied:

- (2b’’) *Att se/ få/ ha arga hundar är hemsk-t.*
 to see/ get/ have angry dogs is awful-neut

The second argument in favor of viewing the surface subject as an object is the possibility of having reflexives. The anaphoric pronouns *sin/sina* in (9) indicate

⁹ This is also the position taken in Teleman & al., (1999), part 3:702–704.

the presence of a subject antecedent. Crucially, the antecedent is not the overt DP:¹⁰

- (9) a *Familjebildning utanför sin klan är olaglig-t*
 family+establishing_{COMMON} outside REFL clan_{COMMON} is illegal-neut

i Yttre Mongoliet.

in OuterMongolia

'The establishing of a family externally to one's clan is illegal in Outer Mongolia.'

- b *Hemfärd till USA utan sin dotter var*
 hometravel_{COMMON} to USA without REFL daughter_{COMMON} was

omöjlig-t, tyckte Sally Fields.

impossible-neut, thought Sally Fields

'Returning to the USA without her daughter was impossible, Sally Fields thought.'

- c *En blomma till sina närmaste medhjälpare vid julen*
 a flower_{COMMON} to REFL closest coworkers_{COMMON, PLUR} at Christmas

är självklar-t.

is natural-neut

'To give a flower to your closest coworkers at Christmas is natural.'

- d *Två älskare utöver sin make*
 two lovers_{COMMON, PLURAL} in-addition-to REFL husband_{COMMON}

är omoralisk-t.

is immoral-neut

'To have two lovers, in addition to one's husband, is immoral.'

The use of a reflexive within an ordinary noun phrase subject is normally ungrammatical:¹¹

¹⁰ (9c) is inspired by Telemann & al., (1999), part 3:703.

¹¹ The issue of reflexives inside DPs is, however, more complex. Attributive PPs containing a *med*-phrase 'with phrase' or *utan*-phrase 'without-phrase' containing a reflexive pronoun, is fine:

- (i) *Kvinnan med sina barn försvann i lördags.*
 woman.the with REFL children disappeared in Saturday
 'The woman with her children disappeared last Saturday.'

As will be further developed in section 3 below, it seems that *med*- and *utan*-phrases (*with*- and *without*-phrases), as exemplified in (i), are clausal. In traditional grammar only phrases consisting of *med* + DP + adverbial/ predicative, such as *med sitt barn på ryggen* in (ii), are assumed to have clausal properties (cf. Telemann & al, part 3: 697).

- (10) **Blommor från sitt hemland doftar underbar-t.*
 flowers from REFL home country smell wonderful-neut
 intended reading: 'Flowers from a persons home country smell wonderful.'

I will remain agnostic as to the nature of the subject in the sentences in (9), but a plausible candidate for the binder of the reflexives in (9) is a generic PRO, which we know can bind reflexives in infinitival clauses. This is illustrated in (11):

- (11) *AttPRO vaxa sin bil är jobbig-t.*
 to PRO wax REFL car is hard-neut
 'To wax one's car is a lot of hard work.'

Thirdly, if the surface subject is a pronoun it gets non-nominative case:

- (12) One cannibal to the other:
Henne med senap och ketchup vore läcker-t.
 her with mustard and ketchup would.be delicious-neut
 'To get her with mustard and ketchup would be delicious.'

It is possible to use the corresponding pronoun in nominative as subject, i.e. *hon* 'she', as shown in (13):

- (13) *Hon med senap och ketchup är läcker.*
 she with mustard and ketchup is delicious.common
 'The woman/girl with mustard and ketchup is delicious.'

Notice, however, that (13) differs in meaning from (12). In (13) the PP *med senap och ketchup* is construed as an attributive to the noun: 'the girl/woman who has/holds mustard and ketchup'. In this case, agreement between the pronoun *hon*, and the adjective *läcker* 'delicious' is straightforward. Crucially the propositional meaning 'to have' or 'to eat' is absent in (13), which means that it is a trivial sentence consisting of the subject *hon med senap och ketchup* 'she/the female with mustard and ketchup' + verb + agreeing predicative adjective.

Fourthly, more than one phrase can precede the finite verb in Construction II sentences without inducing a V2-violation. If the same constituent is used sentence initially with an ordinary predicate like *bruka ge* 'usually give' or *ha* 'have', the sentence is ungrammatical:

-
- (ii) *En kvinna med sitt barn på ryggen kom gående på gatan.*
 a woman with REFL child on back.the came walking on street.the
 'A woman with her child on her back came walking down the street.'

- (14) a **En blomma till våra närmaste medhjälpare vid julen*
 a flower to our closest coworkers at Christmas

brukar vi självklar-t ge.
 usually.do we natural-neut ge
- b **Pengari madrassen hade hon placerat.*
 money in matlass.def had she placed.
- cf. *Pengar i madrassen är dum-t.*
 money in matlass.common.def is stupid-neut
 'It's stupid to have/put money in ones matlass.'
- c **Vitlök i kylskåpet har vi inte.*
 garlic in fridge.the have we not
- cf. *Vitlök i kylskåpet är dum-t.*
 garlic in refrigerator.the is silly-neut
 'It's stupid to keep/put garlic in the refrigerator.'

(14) shows that the subjects of Construction II sentences are not ordinary DPs, but larger phrases, containing the overt DP.¹²

The main point so far is that the surface DP subject of Construction II sentences is not simply a noun phrase, but a larger structure, presumably a clausal type of phrase. It contains a non-overt subject, a predicate and an object. VP-adverbials can also be present. In 2.2 we shall take a closer look at the structure of this clausal subject.

3.2 The structure of the clausal subject

The examples in (9) shows that there is a hidden subject within the subject and (12) that the structure contains a case assigner, responsible for the accusative case on the pronoun. The propositional reading of the subject indicates that the case assigner is a verbal element. As pointed out above it was proposed in earlier days of generative theory that the subject in Construction II sentences is an infinitival phrase, where the leftmost part is deleted. Enger (2004) argues that such an analysis is untenable, since we in that case would be unable to identify the deleted element; different verbs can be supplied in this position.

- (15) *Attha/ få/ se /möta arga hundar är obehaglig-t.*
 to have/get/ see/ meet angrydogs is unpleasant-neut

¹² The sentences in (14) could be reinterpreted in such a way that the PPs within the subject are construed as attributives. This is expected from the analysis.


In my view we have no reason to assume that the verb is deleted; instead the verb is null, i.e. devoid of phonological realization. The idea is that the null verb is, more specifically, a light verb, corresponding to a basic concept, which we, as a first attempt, may gloss as HAVE. In order to show that a null light verb would not be a unique possibility for this construction, we shall first take a look at a different construction where the presence of a null light verb has been suggested. The construction in question consists of subject + modal + directional PP or adverbial (cf. Josefsson (1998)):

(16) a *Jag ska till Rom.*
 I shall to Rome
 'I will go to Rome.'

b *De ska absolut Ø därifrån den här veckan.*
 they shall absolutely thence this here week
 'They definitely need to be removed from here this week.'

The only overt verb in (16a and b) is the modal *ska* 'shall, will', which is an unambiguous modal auxiliary in Swedish. Normally such a modal combines with a main verb, and is unable to take complements headed by the infinitival marker *att* 'to', a fact that provides clear evidence of its status as a modal. Thus, (16) shows that a main verb that includes a meaning that we could characterize as GO can be left out, provided a modal is present, and provided there is a directional PP or adverbial. Different actual verbs could be supplied in (16): *åka* 'go', *fara* 'go', *resa* 'travel' etc. Josefsson (1998) argues that the null main verb in (16a and b) is licit if properly licensed and identified in the sense of Rizzi (1986). The licensing requirement is fulfilled by the auxiliary and the identification requirement by the directional PP/adverbial, which identifies the content of the null verb as GO. The concept GO does not correspond straightforwardly to any particular lexical item in Swedish, but there is a cluster of verbs with this concept as a core part of their meaning, for example *gå* 'walk by foot', *åka* 'travel', *resa* 'travel', and *förflytta sig* 'move'.

The verb GO is a good candidate for a light verb. It is neither a modal nor an auxiliary, and it corresponds to a basic concept, which we may illustrate in terms of the SOURCE, GOAL, and PATH schema shown in (17):

(17) SOURCE  GOAL

The schema in (17) is unspecified for agentivity, which means that the entity that is transferred from a source to a goal, could be a human, acting volitionally, or an entity, human or non-human, which is being transported.

Drawing on a light verb analysis of examples such as (16) I propose that Construction II has a similar structure. Thus, no deletion has taken place; the null head corresponds to the basic concept HAVE, which, just like the concept GO, can be phonologically realized by different language-specific lexemes, for example *ha* ‘have’, *få* ‘get’ and *äta* ‘eat’, yielding sentences like (18), which, accordingly, should be compared to (2b):

- (18) *Att ha två älskare är omoralisk-t.*
 to have two lovers is immoral-neut

As (18) shows, the presence of an infinitival marker is obligatory if an overt verb is supplied. The reason for this will not be explored in this paper, but I assume that it is due to the relation between tense (which could have a plus and a minus value), and the non-finite complementizer.

The important point so far is that what appears to be the subject of Construction II sentences is an object DP embedded in a clausal constituent. The verb is null, and in the cases discussed so far it corresponds to the basic concept HAVE:

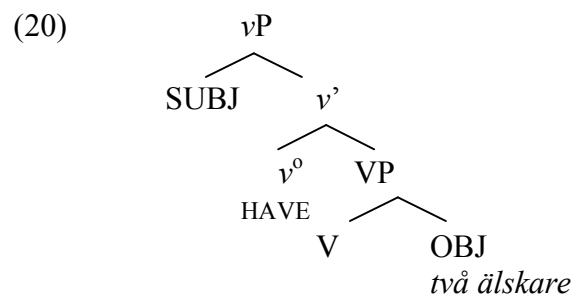
- (19) HAVE *två älskare är omoralisk-t.*
 have [two lovers]_{COMMON,PL} be.pres immoral-NEUT

The next question is the more precise nature of the null verb, in (19) glossed as HAVE.

The notion of light verb has been in the focus of attention in recent literature. The concept was introduced already by Jespersen, who pointed at examples consisting of *have, take* and *give* + NP, for example *have a rest/a read/a cry, take a sneak/a drive/a walk/ a plunge, give a sigh/a shout/a shiver/a pull/a ring* (Jespersen 1965, vil VI:117). The term light verb was coined by Grimshaw & Mester (1988), who examined the Japanese verb *suru* ‘do’. Butt (1995) provides an extensive overview of “the light verb jungle” in a variety of languages, and she shows that in a language like Urdu verbs like *take, give, let, fall, go* and *hit* seem to be light verbs. Lundin (2002) suggests that *låta* ‘let’ and *få* ‘get’ are light verbs in Swedish, and Thurén (2008) analyses *komma* ‘come’ in conjunction with participles, for instance in the construction *komma gående* (come walk.present participle) as a light verb. Butt (2003) argues that light verbs are in a sense the same verbs as the corresponding main verbs. Diachronically,

the light verb and the corresponding main verb have coexisted, which means that light verbs, as opposed to auxiliaries and modals, are not the result of grammaticalization processes. Light verbs are, finally, according to Butt, *passpartouts*: “their lexical semantic specifications are so general that they can be used in a multitude of contexts, that is, they ‘fit’ many constellations” (Butt 2003:18). Butt & Lahiri (2004) posit “that a handful of verbs universally act as *passpartouts*. /---/ These verbs are always drawn from the lexically ‘simplest’ part of the lexicon /.../ i.e. they mainly encompass motion verbs and basic relations such as ‘give’, ‘take’, ‘put’, ‘make’ and ‘do’” (Butt & Lahiri 2004, 36). Also *have* is mentioned as a light verb.¹³

I will adopt the idea that light verbs are *passpartout* verbs, as suggested in Butt (2003) and Butt & Lahiri (2004), as well as Adger’s assumption that light verbs are instances of little *v* (Adger 2003: 134). If this is correct, a subject in a Construction II sentence is at least as large as a *v*P. (20) shows the structure of the subject in (2b), first attempt.



(20) provides an antecedent for the presence of reflexives (given the assumption that VP-adverbials are adjoined to the VP, a reasonable assumption).¹⁴ The propositional meaning of the subject, the absence of a violation of the V2-constraint when a VP-adverbial is added also follow straightforwardly from the proposed analysis.

The difference between the subject in (2a), *två älskare* ‘two lovers’ and corresponding infinitival paraphrase in (18) is not only the presence vs. the absence of the infinitival marker. The verb in (18) is in the infinitival form. Following Chomsky (1999) I assume that infinitive is in fact a tensed form, more specifically a form marked -tense, which means that tense is defective or

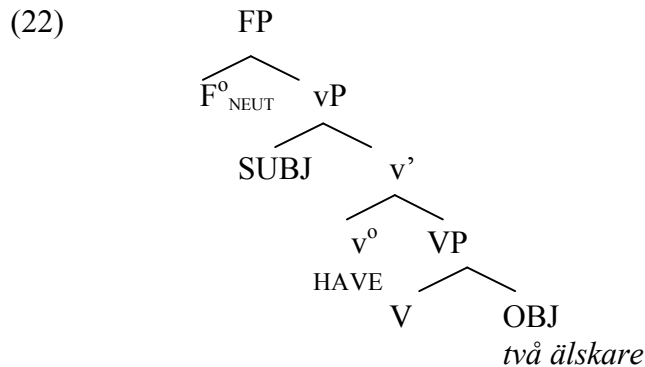
¹³ Teleman & al (1999, part 3: 344) point out that a paraphrase of the subject in constructions of the type discussed here may involve a verb with little meaning, for example *ha* ‘have’, *få* ‘get’, and *ge* ‘give’. Although the term ‘light verb’ is not mentioned in this work, the concept seems to be similar.

¹⁴ As pointed out above I will not discuss the more precise nature of the subject in (20), although arbitrary PRO is a suitable candidate.

unspecified. This implies that the subject *att ha två älskare* in (8) is at least as large as a TP, i.e. it contains a checking head, maybe even a CP layer. In Construction II sentences, such as (2b), we have no reason to assume that the subject is a TP. The main reason is that there is no place for lower adverbs, such as the negation. This indicates that the structure is in fact no larger than a vP:¹⁵

- (21) **Inte två älskare är moralisk-t.*
 not two lovers is moral-neut
 Intended reading: ‘Not to have two lovers is moral.’

As pointed out above, we have no reason to assume that the neuter agreement in Construction II sentences is default. Hence, we need to give a proper account for this agreement. Since gender is a nominal feature, and the head of a vP is verbal, we need to assume the presence of a head, F^0 , hosting the feature that triggers predicative agreement in the neuter.



Given the structure in (4a), it is fully reasonable to assume that the FP in (22) is identical to the SemP in [[hon]den nya professorn], and that F^0 presumably triggers agreement in neuter in Construction I sentences. This would also allow us to account for the similarities and difference between Construction I and Construction II sentences in a more precise way: The subject of Construction I sentences is a SemP taking a NP complement, whereas the subject of a Construction II sentence is a SemP taking a vP complement. In both cases the neuter feature is hosted in Sem^0 . This feature triggers agreement on the predicative adjective. The meaning associated with this feature is that of the fourth gender, i.e. SUBSTANCE or UNBOUNDED ENTITY.

¹⁵ Note that (18) can be negated without any problem:

- (i) *Att inte ha två älskare är omoralisk-t.*
 to not have two lovers is immoral-neut

I will remain agnostic as to the more precise relation between the head F in (22), the head C^o in embedded clauses and the C^o heading infinitival clauses. We may conclude, however, that the feature content of F and that of C^o in infinitival clauses are not identical, since F cannot be lexicalized with *att*:

(23) **Att två älskare är omoralisk-t.*

So far I have discussed Construction II sentences with the null light verb HAVE ‘have’, which alternatively may have the flavor ‘get’, which is a dynamic version of stative HAVE. In addition there seems to be cases with a null GIVE:¹⁶

(24) *Den där buketten till svärmor i lördags*
 that there bunch-of-flowers to mother-in-law in Saturday

var slug-t.

was cunning-neut

‘To give those flowers to your mother-in-law last Saturday was cunning.’

The reason why the null verb is identified as GIVE is the presence of the PP *till svärmor* ‘to mother-in-law’, which carries the theta-role GOAL. The GOAL theta-role normally requires the presence of a DP carrying a THEME role – this is the very essence of the notion ditransitive. Both the GOAL and the THEME role can be identified in (24), hence the null verb is presumably a ditransitive, typically is lexicalized as *ge* ‘give’. In a way similar to null HAVE, different lexemes can be supplied, for example *ge* ‘give’, *överlämna* ‘give’, and *överräcka* ‘reach’.

(25) shows that PERCEIVE may be used as a null verb:

(25) *Våldsfilmer är skadlig-t.*
 violence-films is harmful-neut
 ‘It’s harmful to see films with violence.’

Examples like (24) and (25) raise the question of the identification of the null verb. It seems as though not only adverbials play a role. Our world knowledge (films are normally watched, not eaten, for instance) helps us to retrieve the meaning of the null light verb as PERCEIVE or possibly even the more specified SEE. It might even be the case that the identity of the null light verb may remain undetermined, thus “oscillating” between different readings:

(26) *Arga kunder är otrevlig-t.*
 angry customers is unpleasant-neut

¹⁶ This example is provided by Valeria Molnár.

(26) could mean that it is unpleasant to listen to angry costumers on the phone, to see them in the store, or to just have them around. One possibility is to assume that HAVE has a very broad meaning, including, ‘eat’, ‘see’, ‘listen to’, ‘smell’, ‘hold in the hand’, ‘control’ etc. The other option is that there is a range of concepts with which the null element may be associated, and that a sentence can be underdetermine as to exactly which one.

It is possibly the case that there is as null light verb corresponding to TAKE too:

(27) *Bilen till Stockholm blir för dyr-t.*
 car.common.def to Stockholm will.be too expensive-neut
 ‘It would be too expensive to drive the car to work.’

(27) should be compared to (28) below:

(28) *Att ta bilen till Stockholm blir för dyr-t.*
 to take car.common.def to Stockholm will.be too expensive-neut
 ‘It would be too expensive to drive take car to Stockholm.’

The light verb discussed in Grimshaw & Mester (1988) is the Japanese verb *suru* ‘do’. DO and MAKE seem to be the lightest of all light verbs, i.e. the prototypical light verb. A null DO seems to be an option in Swedish as well:

(29) a *Delbetalning av lånet är klok-t.*
 partial.payment_{COMMON} of loan.the is wise-neut
 b *Vattentvättning är riskabel-t.*
 water.washing_{COMMON} is risky-neut
 c *Avrättningar är omoralisk-t.*
 executions_{COMMON.PLURAL} is immoral-neut

All the initial DPs in (29), *delbetalning*, *vattentvättning* and *avrättning*, are typical event nouns. However, only for (29a), is a paraphrase with the verb *göra* ‘do’ impeccable:

(30) *Att göra delbetalning av lånet är klok-t.*
 to do partial.payment of loan.the is wise-neut
 ‘It is wise to do partial payment of the loan.’

However, as pointed out above, the null light verbs discussed in this paper do not necessarily correspond to actual language-specific verbs. They are, to borrow the term used by Butt & Lahiri *passepartouts*, a group that encompass “motion verbs and basic relations such as ‘give’, ‘take’, ‘put’, ‘make’ and ‘do’”

(Butt & Lahiri 2004, 36). The range of actual verbs in a language that fit into the light verb position is language-specific.

In addition to the null light verbs discussed so far at least two more options seem to be available: *hålla* ‘hold’ and *sätta* ‘put’:

- (31) a *Äktenskapslöften är viktig-t.*
 marriage.promise.pl is important-neut
 ‘To keep promises of marriage is important.’
- b *Målrelaterade betyg på en liten grupp är svårt.*
 outcome.related grades on a small group is difficult
 ‘To set grades related to learning outcomes on a small group is difficult.’

(31a and b) should be compared to (32):

- (32) a *Att hålla äktenskapslöften är viktig-t.*
 to hold marriage.promise.pl is important-neut
 ‘To keep promises of marriage is important.’
- b *Att sätta målrelaterade betyg på en liten grupp är svårt.*
 to put learning.outcome.related grades on a small group is difficult
 ‘To set grades related to learning outcomes on a small group is difficult.’

So far I have proposed a number of null light verbs in Swedish: HAVE, PERCEIVE, GIVE, TAKE, DO, HOLD and PUT. To this list the verb GO should be added, as proposed in Josefsson (1998), even though the term light verb is not mentioned in that article. I will leave the question open as to whether there are more null light verbs in Swedish. The proposed analysis addresses directly Enger’s (2004) objection to a deletion analysis of the “peas and pancakes construction”. The “missing” verb is a light verb, which means that the number of verbs that could fit in is restricted. According to a strong version of a general theory of light verbs, this class of verbs is the same cross linguistically, probably because they encode basic human activities, acts, and experiences, such as doing, taking, getting, holding, perceiving, going etc.¹⁷

The light verb in constructions like *take a bath*, *take a rest*, *give a shout* etc. seems to have very little concrete meaning associated with *take* and *give* in examples such as *take a pencil* and *give flowers to someone*. However, Ekberg (1993) shows clearly that there is a very close link between the “concrete” main verb *ta* ‘take’ and the more abstract *ta*, used as ‘function verb’ (which I take to

¹⁷ The idea that light verbs encode basic human activities, acts, and experiences motivates grouping them together and is what makes them different cognitively/ semantically from tense, modal, and aspectual auxiliaries.

refer to the same group of verbs as light verbs). Thus, it should pose no problem that the null light verbs proposed in this paper retain a “concrete” lexical meaning component. A similar objection could be raised for another class of verbs, namely those used in pseudocoordinations, exemplified in (33) below. Wiklund (2005) proposes that verb 1 in pseudocoordinations, such as (33), are light verbs.

(33) a *Peter sitter och fiskar.*
 Peter sits and fishes
 ‘Peter is fishing.’

b *Maria körde och handlade jordgubbar.*
 Maria drove and bought strawberries.
 ≈ ‘Maria drove away to buy strawberries.’

Verb 1 in pseudocoordinations is often a motion or a posture verb, for instance *sitta* ‘sit’ or *köra* ‘drive’, as in (33). Josefsson (1991) showed that even though the pseudocoordination affects the aspect/aktionsart of the sentence, yielding something that looks like a progressive form in (33a) or an instigation of an event in (33b), the concrete denotation of the verb is retained. This means that Peter actually sits in (33a) and that Maria drives in (33b). Thus, in my view, light verbs can indeed have a light lexical meaning, that is, they encode basic human activities, acts, and experiences, such as doing, taking, getting, holding, perceiving, going, but they can also take the step over and become ultra light, as in the case of Japanese *suru* do (Grimshaw & Mester 1988).

3.3 Definite DPs in the subject of Construction II sentences

It has been noted in the literature that definite DPs are heavily constrained as subjects (or rather as DP objects within the clausal subject) in Construction II sentences (see e.g. Wellander 1949, Faarlund 1977, Källström 1993:1996). Faarlund (1977) even states that definite DPs are ungrammatical in Norwegian. (34) shows an ungrammatical example of this type:

(34) **Älskarna är omoralisk-t.*
 lover.plur.def is immoral-neut

The restriction against definite DPs is not absolute, however, as witnessed by examples like (12) and (24), repeated below, as well as (35), and (36)–(37) (the latter two are authentic examples, found on the Internet):

- (12) One cannibal to the other:
Henne med senap och ketchup vore läcker-t.
 her with mustard and ketchup would.be delicious-neut
 'To get/have/eat her with mustard and ketchup would be delicious.'
- (24) *Den där buketten till svärmor i lördags*
 that there bunch-of-flowers to mother-in-law in Saturday

var slug-t.
 was cunning-neut
 'To give those flowers to your mother-in-law last Saturday was cunning.'
- (35) *Väskan på ryggen är modern-t i år.*
 bag.def.common on back.the is modern.neut in year
 'Its modern to have the bag on the back this year.'
- (36) *Kvalitet-en är viktig-t.*
 quality-common.def.sing is important-neut
 'The quality is important.'
- (37) *Den kommunala sponsring-en till bandyklubbar är vanlig-t.*
 the public sponsorship-common.def to bandy+clubs is common-neut
 'Public sponsorship of bandy clubs is common.'

Regarding the ungrammatical example in (34) I will argue that it is not definiteness *per se* that is problematic, but specificity. (35)–(37) are grammatical because *väskan*, *kvaliteten* and *den kommunala sponsringen* are unspecific. It is normally the case that definite DPs in Swedish have a specific interpretation; unspecific DPs are normally indefinite or bare. This is the reason why it might be difficult to construct examples such as the ones in (36) and (37). Evidence that it is specificity and not definiteness that restricts definite DPs is that an indefinite DP, such as *en chokladbit* 'a piece of chocolate' in the subject of Construction II sentences can only receive an unpecific interpretation; consider (38).

- (38) *En chokladbit är trevlig-t.*
 a chocolate+piece is nice-neut
 'It's nice with a piece of chocolate.'

The restriction against specific DPs in the clausal subject of Construction II sentences remains to be explained, however. In my view this restriction is due to the more general role of DP objects in the syntax. Arad (1996) shows that DP objects – more specifically specific DPs – typically play the role of delimiting an Event. They are, in other words, Event measurers. For example, a sentence like *Peter eats the apple*, is construed in such a way that the specific DP object,

the apple, is successively consumed until it is all gone. In order for a specific DP object to be licit the predicate must be dynamic. Since stative HAVE – the typical predicate in the construction under discussion – per definition is not dynamic, it cannot combine with a specific, definite DP.¹⁸

Specific, definite DPs are found in (12) and (24). The predicates in those examples are dynamic, GIVE and HAVE/GET, and, consequently, specific (and definite) DPs, playing the role of Event measurers, are grammatical. The conclusion we can draw is that there are two cases where a definite DP is licit in Construction II sentences. The first case is stative HAVE + unspecific, but definite DP object. The second case is a null dynamic predicate + a specific, definite DP.¹⁹ Both cases are peripheral in the Swedish grammar.

The proposed analysis explains another property of Construction II sentences, namely that definite DPs are more likely to combine with irrealis *vore* 'were' or past *var* 'was', than present tense *är* 'is'. Compare (12), (39) and (40):

(12) One cannibal to the other:

Henne med senap och ketchup vore läcker-t.
 her with mustard and ketchup would.be delicious-neut
 'To get/have/eat her with mustard and ketchup would be delicious.'

¹⁸ Experiencer DPs seem to have a different syntactic role; in examples like *Ida betraktade bilden* 'Ida watched the picture' the DP object *bilden* 'the picture' does not play the role of Event measurer. Hence we would expect that a null SEE/PERCEIVE could combine with a definite, specific DP. However, it seems as though a null SEE, PERCEIVE requires heavier licensing than a stative HAVE (see 2.4 for more discussion on the licensing and identification of the null elements in Construction II sentences). Thus (i) is not straightforwardly ungrammatical, but marginal:

(i) ??*Henne ensam på lastbilsflaket var förfärlig-t.*
 her alone on truck+platform.the was terrible-neut.

(ii) is, in my view, much better, maybe because the null SEE, PERCEIVE is identified by the noun *syn* 'sight'.

(ii) *Henne ensam på lastbilsflaket var en förfärlig syn.*
 her alone on truck+platform.the was a terrible sight
 'To see her alone on the truck platform was a terrible sight.'

However, since the predicative in (ii) is a noun phrase, *en förfärlig syn*, I do not have conclusive evidence that the subject in (ii) is headed by a SemP with a null +neuter head.

¹⁹ Enger (2004) mentions the restriction against definite DPs in Construction I and II, but does not seem to separate the definiteness from specificity: "One may wonder why [...] it is the case that the more specified the subject is, the more likely ordinary agreement is. [...] The more specified the controller is, the more individualized it is, and the more likely it is that the controller refers to an entity that is high on the continuum [of individuation]" (p. 24).

(39) *Henne med senap och ketchup var läcker-t.*
 her with mustard and ketchup was delicious-neut
 'To get/have/eat her with mustard and ketchup was be delicious.'

(40) ??*Henne med senap och ketchup är läcker-t.*
 her with mustard and ketchup is delicious-neut
 'To get/have/eat her with mustard and ketchup is be delicious.'

The fact that (40) is odd has to do with the temporal interpretation of the null predicate within the clausal subject. This interpretation is in a way similar to the interpretation of a verb in infinitive. Infinitive is not a tense form *per se*, but according to Chomsky (1999) it should be viewed as defective tense. In my view this implies that the temporal interpretation of a verb in infinitive depends on the temporal and modal interpretation of the matrix verb.²⁰ Consider (41), which illustrates this; Note that → should be read as 'is interpreted as'.

- (41) a Att segla är_{PRES} nödvändigt → Att segla_{PRES} är_{PRES} nödvändig-t.
 to sail is_{PRES} necessary → to sail_{PRES} is_{PRES} necessary-neut
- b Att segla var_{PAST} nödvändigt → Att segla_{PAST} var_{PAST} nödvändig-t.
 to sail was_{PAST} necessary → to sail_{PAST} was_{PAST} necessary
- c Att segla vore_{IRREALIS} nödvändigt → Att segla_{IRREALIS} vore_{IRREALIS} nödvändig-t.
 to sail vore_{IRREALIS} necessary → to sail_{IRREALIS} was_{IRREALIS} necessary-neut

Informally we may say that (41) shows that the temporal/modal interpretation of the matrix verb spreads to the embedded infinitival predicate. If this analysis is on the right track the difference in acceptability between (12) and (39), on the one hand, and (40) on the other, is due to the temporal interpretation of the embedded null predicate. Consider (42)–(44):

(42) One cannibal to the other:
 FÅ *Henne med senap och ketchup vore*
 GET_{IRREALIS} her with mustard and ketchup would.be_{IRREALIS} *läcker-t.*
 delicious-neut
 'To get/have/eat her with mustard and ketchup would be delicious.'
 cf. (12)

(43) FÅ *Henne med senap och ketchup var* *läcker-t.*
 GET_{PAST} her with mustard and ketchup was._{PAST} delicious-neut
 'To get/have/eat her with mustard and ketchup was be delicious.'
 cf. (39)

²⁰ The idea that infinitival tense *depends on* the matrix tense does not imply that infinitival tense is always *identical to* that of the matrix, even though this seems to be the case here.

- (44) ??FA *Henne med senap och ketchup är*
 GET_{PRESENT} her with mustard and ketchup is._{PRESENT}

läcker-t.

delicious-neut

'To get/have/eat her with mustard and ketchup is be delicious.'

cf. (40)

The reason why (44) is odd is that the present tense interpretation of the null dynamic predicate within the clausal subject + a DP with specific reference, 'her', makes it necessary to interpret the utterance as a comment on an ongoing event. The oddity of the utterance is thus due to pragmatics. The event referred to by the clausal subject in (43) is interpreted as having taken place in the past, whereas the event described by the clausal subject in (42) is unreal. From a pragmatic point of view, the last two interpretations are more likely from a pragmatic point of view.²¹

We may conclude that restrictions regarding the definiteness of the DP within the subject and tense/mode on the matrix verb are interrelated. A definite, unspecific DP is OK, if the null predicate is stative, or, rather, if it can be construed as stative. Definite specific objects are licit only if the null predicate is dynamic, or, rather, can be construed as dynamic. The tense/mood of the matrix clause is restricted by pragmatics, since matrix tense/mode interpretation "spreads" to the null predicate in the clausal subject. The idea that the possibility of construing a null predicate as stative or dynamic has to do with the identification of the predicate, which will be discussed in more detail in 2.4.

2.4 The licensing and identification of null verbs in Construction II

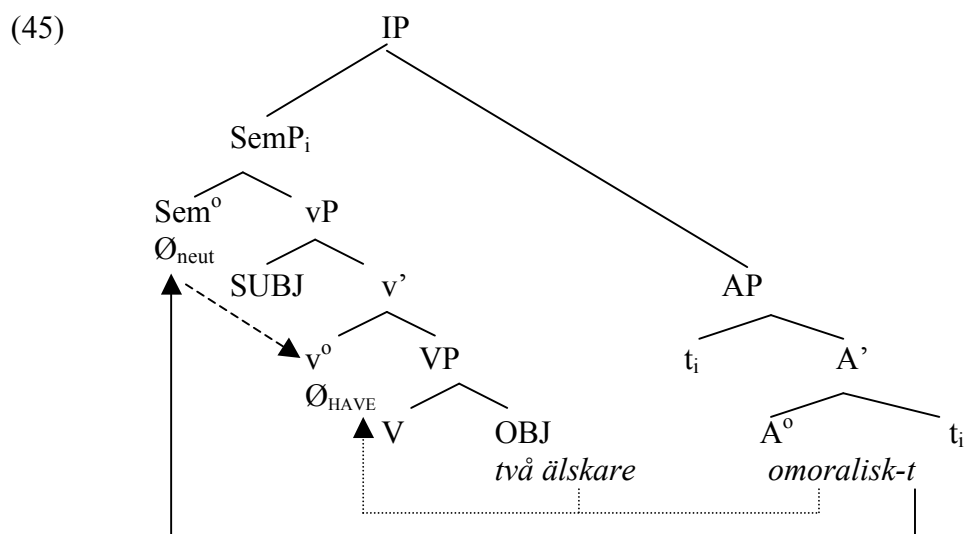
We shall now turn to the licensing and identification of the null verbal predicates, assumed in Construction II sentences. Josefsson (1998) suggests that sentences like (16) above, repeated below, contains a null GO, and that this null verbal predicate has to be properly licensed and identified in the sense of Rizzi (1986).

21 It is reasonable to assume that the temporal interpretation of infinitives takes place by way of the checking of tense features in To. I have argued that the clausal subject is a vP, and not a TP, which means that checking in a T⁰ node cannot take place. However, it is commonly assumed that v⁰ too carries tense features. I assume that a temporal interpretation can take place via those features too.

(16) a *Jag ska Ø till Rom.*
 I shall to Rome
 'I will go to Rome.'

b *De ska absolut Ø därifrån den här veckan.*
 they shall absolutely thence this here week
 'They definitely need to be removed from this place this week.'

According to Josefsson (1998), the licensing requirement in cases such as (16) are fulfilled by the auxiliary, and the identification requirement by the PP/adverb. The same kind of constraint seems to hold for the null verbal predicates in Construction II. The intuition behind the proposed licensing requirement is that some element has to indicate that the structure is larger than shown by the phonological properties of the clause or phrase, i.e. that there is a slot in the structure for a null element. As pointed out above, the modal auxiliary is what indicates a position for a null main verb GO in (16a and b). In Construction II sentences different types of licensors seems to be operating. First of all, the neuter agreement on the predicative adjective indicates the presence of a functional projection hosting the neuter feature. The idea is that gender is a nominal feature, and the functional projection hosting this feature has to be nominal. In this case the neuter feature carries a meaning, namely the semantics related to the fourth semantic gender, SUBSTANCE/UNBOUNDED ENTITY. The *-t* agreement on the predicative adjective in examples such as (2b) – and in fact also (2a) – thus both license and identify the null head of the SemP. The solid arrow in (43) indicates this relation. (Intermediate projections, as well as the CP level are omitted.)



I have suggested that the fourth semantic gender encompasses events and substances. Events are expressed in vPs and substances by NPs, hence the adjective *omoralisk* ‘immoral’ disambiguates the xP selected by the null head of the SemP as being a vP, not an NP. (An adjective like ‘immoral’ does not normally characterize a substance, but describes naturally a stative event.) We could thus assume that the Sem⁰ licenses the null verb (a relation indicated by the striped arrow in (34)), whereas the adjective *omoralisk* identifies it as a particular light verb, presumably in conjunction with the fact that the DP (*två älskare* ‘two lovers’ in (2b)) carry a thetarole, assigned by this null light verb. The identification of the null light verb is indicated by the dotted arrow in (45).

The typical verb used in Construction II sentences is stative HAVE. In non-prototypical Construction II sentences, i.e. with other types of null predicate verbs, the identification requirements seem to be stricter. In (12), for instance, a PP like *med senap och ketchup* ‘with mustard and ketchup’ is obligatory, probably since the DP *henne* ‘her’ is not typical food, hence the null light verb is not normally identifiable as HAVE, with the special meaning ‘eat, consume’. The PP could be exchanged for a location adverbial, for instance *i en sportbil* ‘in a sports car’:

- (46) *Henne i en sportbil vore lækker-t.*
 her in a sports.car would.be gorgeous-neut
 ‘To have her/see her in a sports car would be gorgeous.’

The null light verb in the subject clause in (46) would presumably be identified as HAVE/PERCEIVE/SEE.

In (24) the Goal PP *till svärmor* ‘to mother-in-law’ identifies the null verb as GIVE, and in (35) the DP *väskan* ‘the bag’ in conjunction with the PP *på ryggen* ‘on the back’ identifies the null verb as HAVE. In this case the definite form requires a location PP in order for the non-specific reading of the definite DP *väskan* ‘the bag’ to be available.²²

²² I have restricted the discussion of Construction I sentences to cases where the predicative is an AP. As pointed out in footnote 15, also predicative NPs can be used in this construction:

- (i) *Honom i en sportbil vore en lækker syn.*
 him in a sports car would.be a tasty sight
 ‘To see him in a sports car would be a tasty sight.’

4. Construction II and *med*-phrase paraphrase

As noted above, Construction II sentences can be paraphrased by *det* ‘it’ + a *med*-phrase, i.e. a PP with the preposition *med* ‘with’.

- (3) *Det är omoralisk-t med två älskare.*
 it is immoral-neut with two lovers
 ‘It’s immoral to have two lovers.’

As we shall see, we have reasons to believe that the *med*-phrase has a structure that is parallel to the vP assumed for Construction II sentences.

It is well known that the verb *ha* ‘have’ and the preposition *med* ‘with’ are closely related (cf. Benveniste (1966), Kayne (1993)). In traditional grammar a construction with *med* + DP + location adverbial/predicative is analyzed as a non-finite clause, (in Swedish “satsförkortning” or “satsekvivalent”), see for example Teleman & al. (1999). The verb substituting for the preposition *med* is *ha* ‘have’. (47a) shows an example where *med* takes two phrases in its complement, a DP, *handen* ‘the hand’, and a PP-adverbial, *i bandage* ‘in a bandage’. (47b) paraphrases (47a), but the *med*-phrase is exchanged for a full clause with the verb *ha* ‘have’:

- (47) a *Hon steg ur bussen med handen i bandage.*
 she stepped off bus.the with hand.the in bandage
 ‘She stepped out of the bus with her hand in a bandage.’
 b *Hon steg ur bussen, och hon hade handen i bandage.*
 she stepped off bus.the, and she had hand.the in bandage
 ‘She stepped out of the bus and she had her hand in a bandage.’

From this we can gather that *med* + DP + PP/adverbial – has some kind of clausal properties. The fact that *två älskare* ‘two lovers’ in (2b) and *med två älskare* ‘with two lovers’ in (3) have the same basic reading suggests that also simple *med*-phrases ‘with-phrases’, i.e. *med*-phrases with only a single phrase as its complement, have or may have clausal properties. Another indication is that such phrases may contain a reflexive pronoun, as shown in (48).

In (i) the noun *syn* ‘sight’ seems to identify the null verb in the clausal subject as SEE/PERCEIVE. However, not even this type of “heavy” licensing seem to be enough to identify a single pronominal DP in the subject:

- (ii) **Honomvore en läcker syn.*
 him would.be a tasty sight

- (48) *Det är omoralisk-t med två älskare utöver sin make.*
 it is immoral-neut with two lovers in.addition.to refl husband
 ‘It’s immoral to have two lovers in addition to one’s husband.’

The reflexive pronoun *sin* in (48) indicates that there is a subject inside the *med*-phrase, binding the reflexive. In view of this it would have seemed quite natural to analyze Swedish *ha* ‘have’ as the spell-out of BE + preposition, as argued for English by Kayne (1993); null HA would in a sense be BE + the preposition *med* ‘with’. (The reading would in that case be ‘be two lovers at/with SUBJ’.) However, not only *ha* ‘have’ seems to alternate with the preposition *med*; this holds true for the other assumed null light verbs too, a fact that calls for a slightly different analysis than the kaynian one. Consider (49):

- (49) a GIVE cf. (24)
Det var slug-t med den där buketten till
 it was cunning-neut with it there bunch-of-flowers to
svärmor i lördags.
 mother-in-law in Saturday
 ‘It was cunning to give those flowers to your mother-in-law last Saturday.’
- b PERCEIVE cf. (25)
Det är skadlig-t med våldsfilm.
 it is harmful-neut with violence-films
 ‘It’s harmful to see films with violence.’
- c HAVE cf. (26)
Det är otrevlig-t med arga kunder.
 it is unpleasant-neut with angry customers
 ‘It is unpleasant to have angry customers.’
- d TAKE cf. (27)
Det blir för dyr-t med bilen till.
 it will.be too expensive-neut with car.common.def to
Stockholm.
 Stockholm
 ‘It would be too expensive to take the car to Stockholm.’
- e DO cf. (29)
Det är klok-t med delbetalning av lånet.
 it is wise-neut with partial.payment of loan.the
 ‘It is wise to do partial payment of the loan.’
- f HOLD cf. (31a)
Det är viktig-t med äktenskapslöften.
 it is imporant-neut with marriage.promise.pl
 ‘To keep promises of marriage is important.’

g HAVE/GET cf. (12)

One cannibal to the other:

Det vore läcker-t med henne med senap och
 it would be delicious-neut with her with mustard and

ketchup.

ketchup

'To get/have/eat her with mustard and ketchup would be delicious.'

All the examples in (49) could be paraphrased by sentences where *med* is exchanged for *att* (to) + a VP with the verb in the infinitival form:²³

(50) a GIVE cf. (24)

Det var slug-t att ge den där buketten till
 it was cunning-neut to give it there bunch-of-flowers to

svärmor i lördags.

mother-in-law in Saturday

'It was cunning to give those flowers to your mother-in-law last Saturday.'

b PERCEIVE cf.(25)

Det är skadlig-t att se våldsfilm.
 it is harmful-neut to watch violence-films
 'It's harmful to watch films with violence.'

c HAVE cf. (26)

De är otrevlig-t att ha arga kunder.
 it is unpleasant-neut to have angry customers
 'It is unpleasant to have angry customers.'

d TAKE cf. (27)

Det blir för dyr-t att ta bilen.
 it will.be too expensive-neut to take car.common.def

till Stockholm.

to Stockholm

'It would be too expensive to take the car to Stockholm.'

e DO cf. (29)

Det är klok-t att göra delbetalning av lånet.
 it is wise-neut to do partial.payment of loan.the
 'It is wise to do partial payment of the loan.'

f HOLD cf. (31a)

Det är viktig-t att hålla äktenskapslöften.
 it is important-neut to hold marriage.promise.pl
 'To keep promises of marriage is important.'

²³ Note that the second *med* in (50g) could be exchanged for *tillsammans med* 'together with', which indicates that it is a different preposition, possibly with a simpler structure.

g HAVE/GET cf. (12)

One cannibal to the other:

Det vore lacker-t att fa/ata henne med
 it would.be delicious-neut to get/eat her with

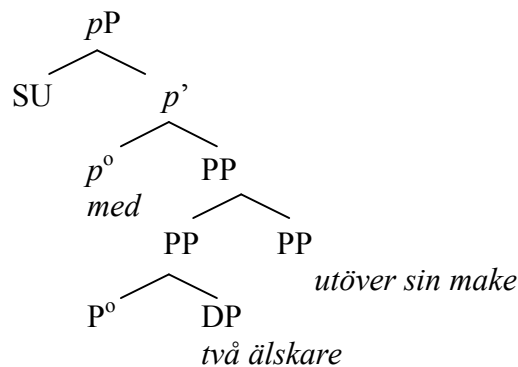
senap och ketchup.
 mustard and ketchup

'To get/have/eat her with mustard and ketchup would be delicious.'

It should be pointed out that all the sentences in (50) are not equally well formed, not as natural as those in (49) – which are all unproblematic – but in my view all the sentence types exemplified occur frequently in spoken language.

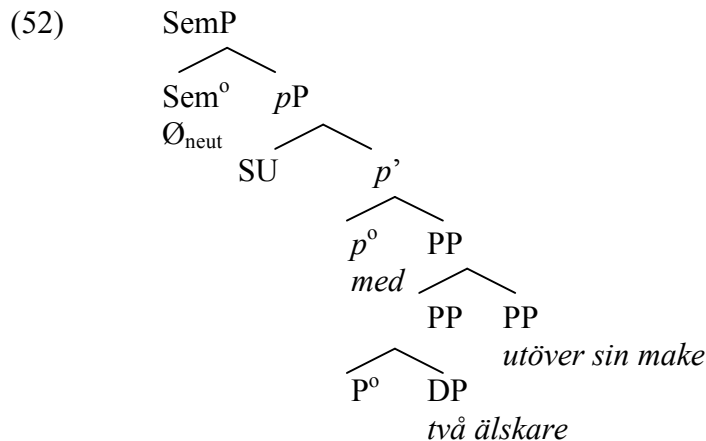
Given the semantic and structural similarity between the assumed null light verbs and the preposition *med* we may hypothesize that *med* 'with' and the null light verbs are located in the "same" position, i.e. in the head of small lexico-functional projection that corresponds to the vP, with the important difference that the head is not v^0 but p^0 ("little p"). I will assume that this projection is a pP. If this is correct we arrive at the structure in (51).²⁴

(51)



I have proposed that a SemP can be added on top of a vP, hosting the neuter feature that triggers agreement in the neuter on the predicative adjective, as shown in (2b). This agreement is thus not default, but semantically motivated, since the feature neuter carries a meaning that corresponds to the fourth gender, SUBSTANCE, or UNBOUNDED ENTITY. In a parallel fashion it is reasonable to assume that we should be able to add a SemP on top of the pP, yielding (52):

²⁴ The PP in (51) could probably be analyzed as a small clause as well. The exact nature of the XP complement of *med* is not crucial for my analysis.



A question brought about by the proposed analysis is why an overt *det* ‘it’ cannot be spelled out in the SemP, yielding (53). As shown in (54), which is a simplification of (4a), the pronoun *hon* can be spelled out in the corresponding position:

(53) *Det med två älskare är omoraliskt.*
 it with two lovers is immoral-neut

(54) [_{SemP} Hon [_{DP} den nya professorn]] är glad.
 she the new professor is happy
 ‘She/the new professor is happy.’

It should be pointed out that (53) is not ungrammatical *per se*, but *det* ‘it’ gets a referential reading in this context, meaning ‘that’ or ‘that thing’, hence *det* is presumably not spelled out in Sem°. I do not have a full answer as to why *det* cannot be spelled out in Sem°, whereas *hon* ‘she’ can, but it is reasonable to assume that it is due to the spell-out convention for pronouns. Since *det* in (53) can be exchanged for demonstrative *det där* ‘that’, we may hypothesize that it is spelled out in the head of the DemP (or whatever functional projection that hosts demonstratives). Generalizing this idea we may assume that all instances of *det* combined with a PP as a modifier (presumably generated in the complement of N°, are instances of demonstrative *det* + PP. This analysis is supported by the fact that the topicalization of the *med*-phrase across an expletive *det* makes the weak pronoun referential:

(55) *Med två älskare är det omoralisk-t.*
 with two lovers is that immoral-neut

The reading of (55) is ‘With two lovers that/that thing becomes immoral’. (55) shows in fact that the PP *med två älskare* cannot be raised across an expletive

subject *det*. The *med*-phrase in (55) is thus adverbial, i.e. does not stand in a chain relation to the subject *det*.

The idea that *det* in (55) has a different structure than (3) is also shown by the fact that *det* could be exchanged for the demonstrative *det där* ‘that’. This is the same reading that would be obtained for (3) as well, if *det* is exchanged for *det där*:

- (56) *Det där är omoralisk-t med två älskare.*
 it there is immoral-neut with two lovers
 ‘That/that thing is immoral with two lovers.’

An analysis that captures the cross-over effect shown in (55) is that the neuter feature hosted in the head of the SemP is a nominal feature that could be probed by a matrix T^0 . The subject position, Spec TP, is an EPP position, which spells out this feature, probably in conjunction with other features related to this position, such as topic. The PPs *med två älskare* in (55) and (56) are consequently bare PPs, i.e. PPs with no SemP on top. Consequently, the t-agreement on *omoralisk-t* in (55) is motivated by *det/det där* in the subject position in a canonical way.

A final question that needs to be addressed is why a SemP taking a vP complement with a null head is fine as a subject, but not a SemP + a PP, as witnessed by (53). (The background assumption is that a PP can indeed have a SemP on top, with a nominal head.)

- (57) **Medtvå älskare är omoralisk-t.*
 with two lovers is immoral-neut

It is a well-known fact that PPs can not be subjects in Swedish.²⁵ The ungrammaticality of (57), as well as the ungrammaticality of PPs more generally

²⁵ Falk (1987) shows that PPs are, marginally OK in sentence initial position:

- (i) *I gräset kan finnas ormar.*
 in grass.the can be snakes
 ‘There might be snakes in the grass.’

PPs like *i gräset* ‘in the grass’ are ungrammatical in the canonical subject position:

- (ii) *?*Säkerligen kan i gräset finnas ormar.*
 surely can in grass.the be snakes

Sentences like (ii), combined with the fact that the DP, *ormar* in (i) is subject to the definiteness constraint indicates that there is a null expletive in the subject position in (i), corresponding to overt *det* ‘it’:

in the subject position, is probably due to the nature of EPP on SpecIP/SpecTP. As pointed out above, EPP is a visibility criterion, which means that the structure is sensitive to the category of the phonological head of the phrase in this position; the visible head must be nominal. Hence even though a pP may have a null nominal projection on its top, it cannot function as subject. The reason is that this neuter feature lacks overt realization.

5. Conclusion and discussion

I have proposed that the apparent disagreement in the two types of construction, above called Construction I and Construction II, is not disagreement – instead agreement holds. Both in Construction I, where the subject has a substance reading, and Construction II, where the subject has a propositional reading, the topmost projection within the subject is a SemP, hosting the neuter feature. This feature triggers agreement in the neuter on the predicative adjective. When located in a SemP the neuter feature corresponds to the meaning of the fourth semantic category, i.e. substance/mass/event, all of which have the feature unboundedness (in space) in common. (In earlier work, e.g. Josefsson (2006) I have argued that the subject in Construction I and Construction II sentences lacks a number feature, which means that t-agreement on the predicative adjective is agreement in gender only, number features being absent on the subject and consequently also on the predicative adjective.)

A grammatical gender feature may be generated low in the NP, maybe even below the zero level in N^0 (which is probably the unmarked case), but it may also be merged high in the noun phrase, presumably in the SemP. When the neuter gender feature is merged low, for instance in the noun *hu-set* in *Hus-et är grön-t* (house.def.neut.sg is green.neut.sg) ‘The house is green’ (cf. (1b) above) it carries no meaning. When the neuter feature is generated high, on Sem^0 , as in *Senap är gul-t* (mustard_{COMMON} is yellow-NEUT) ‘Mustard is yellow’ and *Två älskare är omoralisk-t* [two lovers]_{COMMON,PL} be.pres immoral-NEUT ‘To have two lovers is immoral’, as in (2), it carries the meaning of the fourth semantic gender – SUBSTANCE, UNBOUNDED ENTITY. The proposed analysis thus suggests that one

-
- (iii) I gräset kan det finnas ormar.
 in grass.the can it be snakes
 ‘There might be snakes in the grass.’

Thus, sentences such as (i) and (ii) do not show that Swedish can have PP subjects, but that null expletive subjects are (marginally) OK in Swedish.

and the same feature may be located in different positions, and that they have different meanings – or no meaning at all – depending on the location of this feature. This conclusion should come as no surprise; the same system is at work in the context of numerals. There are ten different digits, but the value of a digit in a calculation depends on where it is located hierarchically and linearly. Thus the digit 1 corresponds to the value ‘one’ in isolation, but to the value ‘ten’ if it appears in the second position to the right etc.

The second conclusion concerns the nature of the subject in Construction II. I have argued that the subject of this type of clauses is a SemP, taking a *v*P as its complement. The subject is phonologically null, thus PRO, *pro*, or an operator of some kind. The main reason for assuming that the subject is clausal, in turn containing an embedded null subject, is the fact that reflexives are fine. This means that the overt DP is in fact an embedded object. The head position, *v* is filled by a null verb, which I have identified as a light verb. In the typical case this light verb is HAVE, but it could also be construed as GET, GIVE, PERCEIVE, TAKE, HOLD, and PUT. The verbs in question are almost exactly identical to the set of light verbs, from point of meaning analysed as *passepartout verbs*, listed in Butt & Lahiri (2004, 36). My proposal is that light verbs can be null in Swedish, provided they are properly licensed and identified. Whether this suggestion holds for other languages and other types of constructions remains to be investigated.

I have argued that the assumed restriction against definite DPs is in fact a restriction against specific DP objects. This restriction holds for cases where the predicate is a stative HAVE, which cannot combine with specific DP objects. Specific DP objects can combine only with dynamic null predicates. I have proposed a system where the null elements are licensed and identified in the sense of Rizzi (1986).

In the last section I proposed that the preposition *med* ‘with’ typically corresponds to the light verb HAVE, though devoid of the verbal features hosted in *v*. By being prepositional it cannot head the projection occupying the subject position. This is the reason why an expletive *det* is present to satisfy the EPP feature of the subject position. The “expletive” *det* is chain-related to the SemP, which explains why the *with*-phrase cannot move across it.

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Long object shift and agreement

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Abstract

This squib is concerned with long object shift in Swedish. A problem concerning the binding of reflexives that has shifted across the subject is investigated. The analysis suggested makes use of Bonet's (1995) post syntactic morphological processes: feature delinking, erasure and insertion.

1 Introduction

This squib concerns a mismatch in agreement between the Swedish third person reflexive pronoun and its antecedent. In certain contexts a 1st or 2nd person pronoun can bind a 3rd person reflexive, as in (1).

- (1) Igår latade sej inte bara du/ni/jag/vi,
y-day were-lazy refl-3rd not only you/you-pl/I/we,
(alla gjorde det).
(everyone did it)
'Yesterday, not only you/I/we was/were lazy, (everyone was).'

There are both syntactic and semantic restrictions on this phenomenon. A syntactic prerequisite is that the reflexive has undergone object shift. The semantic/pragmatic prerequisite is that the 1st or 2nd person pronoun must be modified so the discourse context implies a third person referent. I will provide an outline of an analysis that makes use of Bonet's (1995) analysis of clitic clusters in Romance.

The outline of the paper is as follows. The second and third sections outline object shift and long object shift (LOS), respectively. The fourth and fifth sections introduce LOS and the sixth section concentrate on the quirky LOS and its properties. The seventh section outlines the problems of a strictly syntactic analysis, and section

eight the problems of a strictly semantic analysis. In section nine I go through Bonet's (1995) analysis of Romance clitics. The section after that gives an analysis in line with Bonet's of the Swedish data. The last section concludes the paper with some consequences for the distinction between reflexive and personal pronouns.

2 Object shift

Object shift is when a weak/clitic object pronoun raises above any adverbs, such as negation, illustrated in (2). Only if the lexical verb is finite and has raised out of VP, is object shift possible (Holmberg, 1986).

- (2) a. Vi ansåg (*Lotta) inte Lotta lämplig.
 we considered not Lotta suitable
 'We didn't consider Lotta suitable.'
- a' Vi ansåg henne inte lämplig.
 we considered her not suitable
 'We didn't consider her suitable.'
- b. Personalen såg (*tjuven) inte tjuven.
 staff-the saw not thief-the
 'The staff didn't see the thief.'
- b' Personalen såg honom inte.
 staff-the saw him not
 'The staff didn't see him.'
- c. Kören sjöng (*stycket) förstås inte stycket.
 choir-the sang of course not piece-the
 'Of course, the choir didn't sing the piece.'
- c' Kören sjöng det förstås inte.
 choir-the sang it of course not
 'Of course, the choir didn't sing it.'

3 Long object shift (LOS)

Long object shift is when the object pronoun raises above the subject as in the following examples (from Holmberg 1986).

- (3) a. Varför gör mej Helge alltid så irriterad?
 why makes me Helge always so irritated
 ‘Why does Helge always make me so irritated?’
- b. Igår kallade mej farsan för tjockskalle.
 yesterday called me daddy for blockhead
 ‘Yesterday daddy called me blockhead.’
- c. Ansåg dej inte lärarna alltför uppkäftig?
 considered you not teachers-the too impertinent
 ‘Didn’t the teachers consider you too impertinent?’
- d. Gav dej snuten körkortet tillbaka?
 gave you cops-the driving license-the back
 ‘Did the cops give you your driving license back?’

4 LOS and reflexives

Holmberg (1986), Josefsson (1992) and Teleman et al. (1999) all claim that weak reflexives can undergo long object shift, as in (4a)-(4b). They can even raise above a (focused) subject pronoun, (4c). This does not hold for all reflexives as we can see in (5).

- (4) a. Varför gömde sej barnen? (Holmberg’s (223))
 why hid refl-3rd. kids-the
 ‘Why did the kids hide?’
- b. Igår latade sej Lisa (inte).
 yesterday was-lazy refl-3rd Lisa (not)
 ‘Yesterday, Lisa was(n’t) lazy.’
- c. Förra veckan gifte sej HON.
 last week married refl-3rd SHE.
 ‘Last week SHE got married’
- (5) a. * Förra veckan gifte mej JAG.
 last week married refl-1st I
 ‘Last week I got married.’
- a’ Förra veckan gifte JAG mej .
 Last week married I refl-1st
 ‘Last week I got married.’

- b. * Förra veckan gifte dej DU.
last week married refl-2nd YOU
'Last week YOU got married.'
- b' B: Förra veckan gifte DU dej.
last week married YOU refl-2nd
'Last week YOU got married.'
- c. * Förra veckan gifte er NI.
Last week married refl-2ndpl YOU
'Last week YOU got married.'
- d. * Förra veckan gifte oss VI.
B: Well, Last week married refl-1stpl WE
'Last week WE got married.'

The conclusion we can draw from (5) is that long object shift is not allowed with 1st and 2nd person reflexives. Remember from (3) that it is possible with 1st and 2nd person pronouns.

5 The quirky LOS

The following sentences show that long object shift of reflexives is possible with 1st and 2nd person antecedents, but the funny thing is that the reflexive has to be 3rd person.

- (6) a. Förra veckan gifte sej inte bara jag
last week married refl-3rd not only I
(Nisse gjorde det med).
(Nisse did it too)
'Last week, not only I got married, Nisse did it too.'
- b. Igår latade sej inte bara du, (alla gjorde det).
y-day were-lazy refl-3rd not only you, (everyone did it)
'Yesterday, not only you were lazy, (everyone was).'
- c. Kanske satte sej inte bara vi och vilade.
maybe sat refl-3rd not only we and rested
'Maybe not only we sat down and rested.'
- d. Givetvis lade sej inte enbart ni alldeles försent.
of course lay refl-3rd not only you much too late
'Of course, not only you went to bed much too late.'

6 Properties of the quirky LOS

6.1 The antecedent must be modified

The antecedent must be modified in an way that presupposes a third person in the discourse context.¹ As we saw in (5), it is not enough to put emphasis on the antecedent.

- (7) a. * Igår latade sej du och jag.
 y-day were lazy you and I
 ‘Yesterday you and me were lazy.’
- b. Igår latade sej inte bara du och jag.
 y-day were lazy not only you and I
 ‘Yesterday not only you and me were lazy.’
- c. * Förra gången satte sej vi allihop och vilade
 last time sat refl-3rd we all and rested
 ‘Last time, we all sat down and had a rest’
- d. Förra gången satte sej både du och dom och
 last time sat refl-3rd both you and they and
 vilade
 rested
 ‘Last time, both you and them sat down and had a rest’

6.2 ‘Heaviness’ is not the issue

It’s tempting to attribute the modification to heaviness. But other modifications that make the antecedent heavier do not allow for the mismatch. Heaviness is important though.

- (8) a. * När slog sej lilla stackars du?
 when hurt refl-3rd little poor you
 ‘When did you hurt yourself, poor little thing.’

¹Andrew Nevins (personal communication april 2008) has pointed out that perhaps it is not third person but quantification that matters. Most examples involve quantifiers but there are examples with coordination that allow for the mismatch. A few speakers accept shifted third person reflexives with contrastively focused first or second person pronoun. Whether the focus implies quantification or the introduction of a comparison set of third person, I don’t know. The role of third person versus quantification needs further investigation.

- b. När slog lilla stackars du dej?
when hurt little poor you refl-2nd
'When did you hurt yourself, poor little thing.'
- c. * Inte slog sej väl du som är så starkt?
not hurt refl-3rd disc.part you who are so strong
'You, who are so strong didn't hurt yourself, did you?'
- d. ? Inte slog väl du som är så starkt dej?
not hurt disc.part you who are so strong refl-3rd you
'You, who are so strong didn't hurt yourself, did you?'
- e. Inte slog väl du dej som är så starkt?
not hurt disc.part you refl-2nd who are so strong
'You, who are so strong didn't hurt yourself, did you?'

6.3 The reflexive must precede the antecedent

If the reflexive does not precede or c-command the antecedent, there must be agreement between them (9). Note that if the reflexive precedes the antecedent, the reflexive *must* be 3rd-person *sej* (which is not marked for number).

- (9) a. Igår latade sej inte bara du,
y-day were-lazy refl-3rd not only you,
(alla gjorde det).
(everyone was)
'Yesterday, not only you were lazy, (everyone was).'
- b. * Igår latade dej inte bara du,
y-day were-lazy refl-2nd not only you
(alla gjorde det).
(everyone was)
'Yesterday, not only you were lazy, (everyone was).'
- c. * Igår latade inte bara du sej,
y-day were-lazy not only you refl-3rd,
(alla gjorde det).
(everyone was)
'Yesterday, not only you were lazy, (everyone was).'

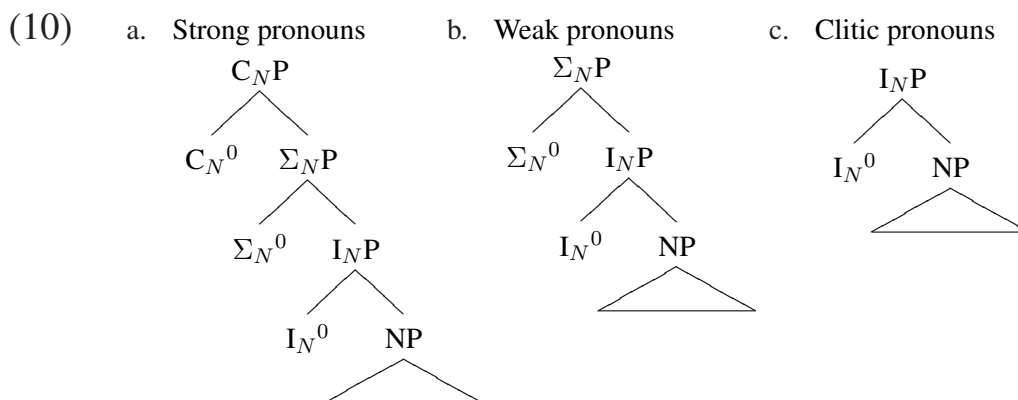
- d. Igår latade inte bara du dej,
 y-day were-lazy not only you refl-2nd
 (alla gjorde det).
 (everyone was)
 ‘Yesterday, not only you were lazy, (everyone was).’

6.4 Summary

1. The antecedent must be modified (heaviness is important, but not the crucial thing)
2. The reflexive must precede the antecedent, if it doesn't we have φ -feature agreement
3. If the reflexive precedes the antecedent, the reflexive has to be 3rd person, irrespective of the features of the antecedent.

7 A syntactic analysis

Cardinaletti and Starke (1999) make a distinction between three types of pronouns: strong pronouns, weak pronouns, and clitics, (10). Their basic claim is that the more structure a pronoun is missing, the further up it must move to recover its structure. Clitics lack the most structure and will as a consequence move furthest.



The structure of weak elements is thus a ‘peeled’ structure of the next higher strong element. The reason a deficient element is chosen over a more structurally complex one is, according to Cardinaletti and Starke (1999, 198) an ‘economy’ condition: Economy of representations.

A possible analysis is that there is only one Swedish reflexive clitic, *sej*.² There is agreement between the antecedent and the reflexive at some place during the syntactic derivation, (11a), but at lexical insertion there is only one clitic form available for the highest, i.e. the shifted position.

- (11) a. subject [_{VP} verb refl]
 b. [_{CP} verb refl subject ...]

However, this analysis misses the fact that in order for the reflexive to long object shift across a first or second person pronoun, the antecedent has to be modified, as we saw in section 6.1. Consequently the prediction of this analysis is that sentences such as (12) should be well formed.

- (12) * Igår latade sej JAG.
 y-day was-lazy refl-3rd I
 ‘Yesterday I was lazy.’

8 A conceptual/semantic analysis

Since the antecedent must be modified in a way that implies a discourse context of third persons, it has approximately the conceptual structure in (14) (notation from Culicover and Jackendoff 2005).

- (13) Inte bara jag klippte mej.
 not only I cut me
 ‘Not only I cut my hair.’
- (14) [CUT ([not only 1st/2nd, but also [OTHERS]], REFL.)]

Either, or both, of the parts of the subject arguments can appear in syntax (Culicover and Jackendoff, 2005, 381). However, assuming that [OTHER] is visible in the syntax would predict that sentence (15) is well formed. That the implied CS argument is not visible in the syntax is not a general condition in Swedish as we can see in (16).

- (15) * Igår klippte inte bara jag sej.
 y-day cut not only I refl-3rd
 ‘Yesterday, not only I cut my hair.’

²This analysis was suggested in Heinat (2005). At that time I was not aware of the third person effect.

- (16) Bord åtta har satt sej och dom vill beställa
 table eight has sat refl-3rd and they want to order
 dricka
 drinks
 ‘Table eight has sat down and they want to order their drinks.’
- ^(16’) [SIT ([PERSONS ASSOCIATED WITH [TABLE EIGHT]],
 REFL.)]

So a Simpler Syntax analysis makes no distinction between the order of the antecedent and the reflexive.

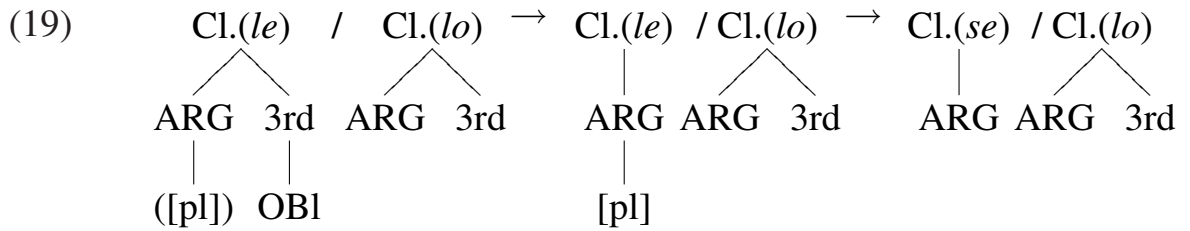
9 Bonet (1995)

Bonet develops an analysis for the forms of the clitics in various clitic clusters in Romance. As we will see in this section she makes use of post syntactic morphological processes. She claims that “[p]ronominal clitics constitute hierarchical structures of unordered morphological features”(p.614). The structure of the Spanish clitics are, according to Bonet, the following:

- (17)
- | 1st (sg, pl) | 2nd (sg, pl) | 3rd | refl |
|--------------|--------------|---------------|------|
| CL | CL | CL | CL |
| | | / \ | |
| ARG | ARG | ARG 3 | ARG |
| / \ | / \ | / \ | |
| ([pl]) 1 | ([pl]) 2 | ([fem])([pl]) | |

Bonet wants to account for the form of the pronoun *se* in (18c):

- (18) a. El premio, **lo** dieron a Pedro ayer.
 the price 3rd-acc gave(3rd-pl) to Pedro yesterday
- b. A Pedro, **le** dieron el premio ayer.
 to Pedro 3rd-dat gave(3rd-pl) the price yesterday
- c. A Pedro, el premio **se lo** dieron ayer.
 to P the price se 3rd-acc gave(3rd-pl) y-day
- d. * A Pedro, el premio **le lo** dieron
 to P the price 3rd-dat 3rd-acc gave(3rd-pl)
 ayer.
 y-day



The feature [pl] is deleted by ‘stray erasure’: all features that are unlinked are deleted.

According to Bonet it is also possible to introduce a feature (p.631) (impersonals are specified for plural):

- (20)
- a. * Si si lava
si si washes
‘one washes oneself’
 - b. Ci si lava
ci(1 pl) si washes
‘one washes oneself’
 - c. Cl. / Cl.
| |
ARG ARG
| \ /
[pl] 1

Ci is the same as 1st plural.

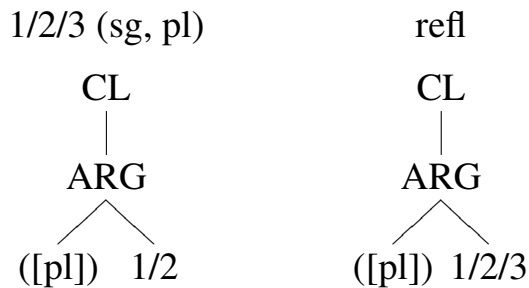
It is not clear what triggers the insertion of the first person feature. The next section is an analysis of the Swedish data that makes use of Bonet’s machinery. However, contrary to Bonet’s analysis of Italian, there seems to be factors that influence the licensing of feature insertion.

10 Analysis

The following things are assumed in the analysis:

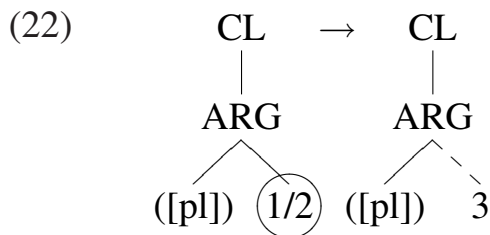
- (21)
- i. Binding is syntactic and the features of the reflexive are valued in syntax, i.e. Binding Principle A.
 - ii. The lexicon contains only one reflexive lexical item that can precede its antecedent in long object shift, namely *sej*. (C&S)

iii. The structure of Swedish clitics are:



The difference between a reflexive and a personal pronoun being the way they get their φ -feature values, something that I will not discuss in this paper, but see Heinat (2006) for an analysis along the lines of feature sharing.

Given we have the order reflexive(clitic) – antecedent the following processes takes place: first, the 1st or 2nd person feature is delinked and later deleted by Stray Erasure (Bonet, 1995, 633). Second, a 3rd person feature is inserted, in line with Bonet’s account of (20) above.



In contrast to Bonet’s analysis of Italian (see (20)) we get a motivation why a 3rd person feature is inserted. This feature is only licensed in a context where a third person is implied. Since this feature is inserted in the morphophonological component, it has no effect on agreement relations in the syntax. Also, the fact that the insertion of features has to be licensed somehow (contra Bonet) accounts for the fact that *sej* can never precede antecedents that fail to imply a 3rd person.

11 Consequences

The conclusions we can draw from the analysis of this feature mismatch between antecedent and reflexives are: first, that there is a difference between first and second person pronouns and first and second person reflexives. If these were the same, as, for example, (Reuland, 2001) claims, we would expect this mismatch in agreement also in

sentences such as in (23), exemplified in (24), where a pronoun is adjacent to a DP that not only implies but also syntactically has a 3rd person feature.

- (23) a. Sist gjorde mej syrran så oerhört irriterad
last-time made me sister-the so incredibly irritated
'Last time my sister made me so incredibly irritated?'
- b. Igår kallade mej farsan för tjockskalle.
yesterday called me dad-the for blockhead
'Yesterday dad called me blockhead.'
- c. Tidigare ansåg oss lärarna alltför
earlier considered us teachers-the too
uppkäftiga.
impertinent
'Earlier the teachers considered us too impertinent.'
- (24) a. *Sist gjorde sej syrran så oerhört irriterad
last-time made refl-3rd sister so incredibly irritated
'Last time my sister made me so incredibly irritated?'
- b. *Igår kallade sej farsan för tjockskalle.
yesterday called refl-3rd dad for blockhead
'Yesterday dad called me blockhead.'
- c. *Tidigare ansåg sej lärarna alltför
earlier considered refl-3rd teachers too
uppkäftiga.
impertinent
'The teachers considered us too impertinent earlier.'

Here we have the following linear order:

- (25)
- | | | | | |
|------------|-----|---|----------|-----|
| CL | SHE | → | *CL | SHE |
| / \ | | | / \ | |
| ([pl]) 1/2 | 3 | | ([pl]) 3 | 3 |

Delinking of the 1st or 2nd person feature and insertion of the 3rd person feature are not allowed, which indicates that there is a difference between pronouns and reflexives.

Another consequence is that the spurious *sej* in Swedish supports Nevins' (2007) claim that some morphophonological processes cannot be accounted for without making reference to a 3rd person feature, even if this seems to be possible in the syntax.

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On the Structure of Swedish Subordinate Clauses*

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ABSTRACT

In this paper I will discuss the distributional variations of different kinds of subjects in Swedish subordinate clauses. The discussion is based on a novel observation: in embedded V2 clauses, negation may only precede quantified subjects in the position following the complementizer. Exactly the same restriction is found in the first position of Swedish main clauses. This correlation I take to provide a strong argument for assuming V-to-C movement in embedded V2 clauses. Non-V2 complements do not display such a restriction: any type of negated subject may follow the complementizer. Thus I argue that by focusing on the position immediately to the right of the complementizer, we are offered a new tool for distinguishing the structural properties of different subordinate clause types in Swedish.

1. Introduction

Swedish subordinate clauses come in two varieties: the prototypical non-V2 complement and the somewhat marked embedded V2 clause. In this respect, Swedish patterns with Danish, Norwegian and German: the distinct property of verb second (meaning that no more than one constituent may precede the finite verb) is primarily associated with main clauses, but is occasionally found also in complement clauses. The relevant variation is illustrated below:

- (1) a. Sven **gillar** *inte* prinsesstårta (V2 main clause)
 Sven likes not princess cake
- b. ...att Sven *inte* **gillar** prinsesstårta (standard non-V2 complement)
 that Sven not likes princess cake
- c. ...att Sven **gillar** *inte* prinsesstårta (embedded V2)
 that Sven likes not princess cake

*The general idea of this paper was presented at a workshop in Budapest, 2007. I would like to thank the participants for their valuable comments and suggestions. I received helpful comments on an earlier draft from Christer Platzack and Valéria Molnar, from which the current paper certainly benefitted. I am of course solely responsible for all errors and shortcomings.

Note that the embedded V2 clause in (1c) mirrors the main clause structure in (1a). As has been argued ever since Andersson (1975), the possibility of V2 in subordinate clauses is closely linked to the semantic status of the embedded proposition; I will review the relevant arguments in more detail below.

Much of the discussion on Swedish clause structure in general and subordinate clause structure in particular has focused on the position of the finite verb in relation to negation and clause adverbials. In this paper, I will shift focus and zoom in on the subject instead, discussing its distribution with regards to the finite verb and negation. As is well established but rarely discussed, the Swedish middle field allows for some variation when it comes to the relative ordering of the subject and negation. Although the subject prototypically follows to the immediate right of the finite verb preceding negation (2a), it may also be found further to the right following negation (2b):

- (2) a. Den tårten ville **Sven** *inte* äta (prototypical)
 that cake wanted Sven not eat
- b. Den tårten ville *inte* **Sven** äta
 that cake wanted not Sven eat

Note that this distributional variation cannot be fully explained in terms of focus or contrast: the subject in (2b) need not be contrastively stressed¹. Subordinate clauses display a similar pattern: the subject may be preceded by negation without any obvious contextual trigger. Without stress on the subject, the interpretation of (3b) does not differ from (3a) in any significant sense:

- (3) a. ...att **Sven** *inte* gillar prinsesstårta (prototypical)
 that Sven not likes princess cake
- b. ...att *inte* **Sven** gillar prinsesstårta
 that not Sven likes princess cake

Interestingly, the comp + neg + subject sequence of (3b) has received little attention in the literature. Not even within traditional, descriptive grammar is this possibility discussed in any detail.

From this very brief overview, Swedish subordinate clauses have been shown to allow for two deviations from the standard word order, one having to do with the position of the finite verb in relation to negation and clause adverbials, the other having to do with the subject in relation to negation and clause

¹ Unstressed pronominal subjects behave somewhat differently, however, in that most speakers prefer them to precede negation (Teleman 1999:4, p. 94-95).

adverbials. In what follows, I will argue that these variations can be intrinsically linked to each other. In short, I aim to show that the possibility of having negated subjects following the complementizer is heavily restricted in embedded V2-clauses. Only quantified subjects are possible in such complements. The position immediately to the right of the complementizer in embedded V2-clauses thus displays exactly the same restriction as we find in the first position of declarative main clauses (to be discussed in section 4). This distributional fact I take to provide a very strong argument for assuming that the embedded structure in (1c) is identical to the structure of the Swedish main clause. No such restriction is found for non-V2 complements, which is expected given the standard view on subordinate clause structure. The observation is supported by a corpus study, presented in section 5.

2. The Swedish clause structure

Within the generative framework, the characteristic V2 property of Swedish declarative main clauses is standardly taken to follow from V-to-C movement: the finite verb must obligatorily raise from V to C. Following the general assumption of a NegP marking the lower boundary between IP and VP (Pollock 1989), a raised finite verb will thus precede the negative particle in Swedish. Note also that verb movement to C enables topicalization: Spec-CP is arguably the only position in the Swedish clause structure to which movement is motivated by pragmatic/semantic considerations rather than syntactic².

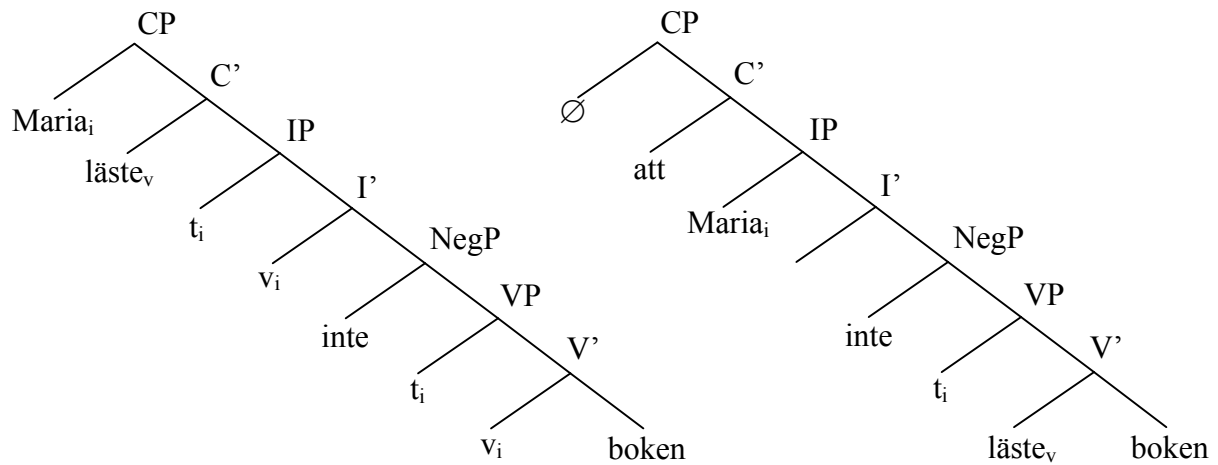
The presence of a complementizer effectively blocks verb movement to C in subordinate clauses, forcing the verb to remain in situ in V (see Platzack 1986 for arguments). This has at least two obvious structural consequences: a) the finite verb will remain in a position lower than any clause adverbial b) topicalization is not possible, since Spec-CP is not available in the structure:

² However, Spec-CP must be obligatory filled by an overt element in main clauses. Thus movement to Spec-CP may be seen as syntactic, whereas the choice of the moved constituent is subjected to semantic/pragmatic considerations.

Figure 1: Swedish clause structure

1a. Main clause

1b. Subordinate clause



Following Vikner (1995), I will assume that I never provides a possible landing site for the finite verb in Swedish: the verb either has to raise to C or remain in V. This claim is supported by the data in (4): the fact that the finite verb is preceded by negation whenever it is not in second position suggests that it has remained in situ in V.

- (4) a. Han kanske *inte* **kommer** ikväll
 he maybe not comes tonight
- b. *Han kanske **kommer** *inte* ikväll
 he maybe comes not tonight

Swedish differs in this respect from Icelandic, which is generally assumed to display V-to-I movement (see e.g. Vikner 1995 and Thráinsson 1995, but also Bentzen et al 2007 for a different view).

2.1 Embedded V2

Subordinated *that*-clauses may display main clause properties in certain restricted environments, for example when embedded under assertive verbs, such as *say*, *claim*, *believe* and *think* (see e.g. Andersson 1975, Vikner 1995, Julien 2007). The main clause properties referred to here are basically that the verb may precede negation and any clause adverbial (5a), and that the clause need not be subject initial (5b). The latter fact is especially important, since the possibility of a topicalized non-subject constituent is suggestive of V-to-C movement (given that V-to-C movement is a prerequisite for the availability of

Spec-CP as discussed above). As expected, topicalization is not possible if the finite verb remains low in the structure (5c):

- (5) a. Jag tror att Maria **har** *ännu inte* läst den boken
 I believe that Maria has still not read that book
- b. Jag tror att den boken **har** Maria *ännu inte* läst
 I believe that that book has Maria still not read
- c. *Jag tror att den boken Maria *ännu inte* **har** läst
 I believe that that book Maria still not has read

Embedded V2 has gained considerable interest in the literature, and it has seen somewhat of a revival in later years (see e.g. de Cuba 2007, Julien 2007 and Bentzen et al 2007). Most researchers agree that embedded V2 follows from V-to-C movement, but disagree on the actual trigger of embedded V2. As touched upon above, embedded V2 is only possible in certain environments, and I will return to the licensing question in 5.1 below.

But let us now turn our attention to the other variation we set out to discuss, namely the distribution of the subject in relation to negation and clause adverbials.

2.2 Subject and clause adverbials

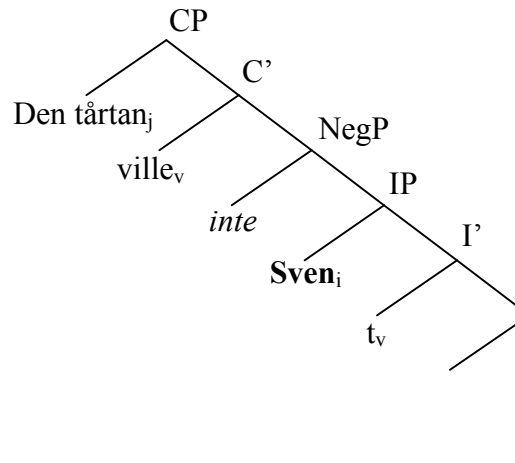
Even though the subject is frequently found in the first position of the Swedish main clause, it is assumed to have moved there from its position to the immediate right of the finite verb. The distributional fact that the subject prototypically precedes clause adverbials provides a clear indication of movement out of VP. However, different analyses have proposed different subject positions; for the present purposes I will simply assume movement to Spec-IP (see e.g. Waldmann 2008, Vikner 1995, Holmberg & Platzack 1995)³.

In line with Platzack (2006), I will assume two available NegPs: one marking the lower boundary of the I-domain and one marking the upper. This move allows a straightforward account of the variation illustrated in examples (2) and (3) above:

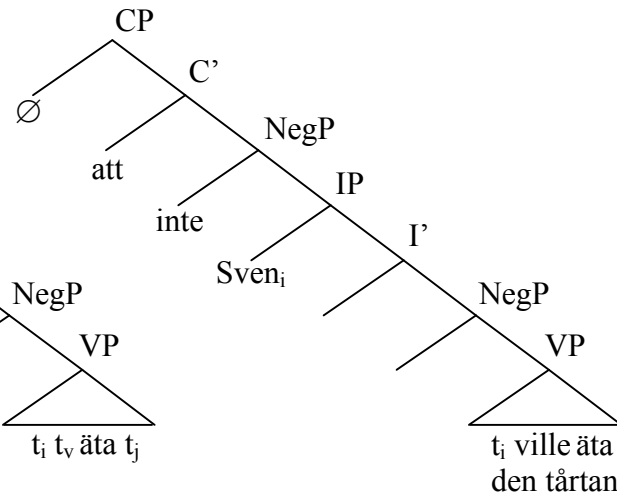
³ Holmberg & Platzack (2005) – working with a split C-domain – argues that the subject moves through Spec-TP to Spec-FinP. The motivation for distinguishing between Fin(ite)P and T(ense)P is that finiteness and tense need not co-occur (cf. Sells 2007). As has been proposed by Platzack (2006), the FinP may host tenseless constituents, most notably *kanske* ('maybe') as illustrated in (4).

Figure 2: The Swedish I-domain

1a. Main clause



1b. Subordinate clause



It might be tempting to alternatively analyze the subjects as VP-internal, thus being in a position lower than any clause adverbial (which would render an upper NegP superfluous). But this is clearly not a correct assumption: as is illustrated in (6) and (7) the subject must precede a negative polarity item (NPI), a fact that strongly suggests movement out of VP⁴:

- (6) a. Den filmen ville *inte* **Sven** någonsin se
 that movie wanted not Sven ever see
 b. *Den filmen ville *inte* någonsin **Sven** se
 that movie wanted not ever Sven see
- (7) a. ...att *inte* **Sven** någonsin har varit i Paris
 that not Sven ever has been to Paris
 b. *...att *inte* någonsin **Sven** har varit i Paris
 that not ever Sven has been to Paris

It should be emphasized that the clause structure presented here is quite simplified; for a thorough discussion on subject positions in relation to adverbials the reader is referred to Svenonius (2002) and the references cited therein. For our

⁴ The polarity item *ens* ('even') may occur in pre-subject position, though: *att inte ens Sven...* But the distribution of *ens* differ from *någonsin* ('ever') in main clauses as well. Thus (i) is grammatical, whereas (ii) is not:

- (i) *Inte ens* Sven har varit i Paris
 (ii) **Inte någonsin* Sven har varit i Paris

present purposes, however, I think we are sufficiently equipped to proceed to the next section.

4. The prediction

We have now spent some time discussing the structural properties of three different sentence types in Swedish: main clauses, subordinate clauses and embedded V2-clauses. Now, if the assumption of V-to-C-movement in embedded V2 clauses is correct, this means that the complementizer will embed a CP rather than the prototypical IP. Consequently, we would predict the position immediately to the right of the complementizer to be different in V2 and non-V2 complements: Spec-CP and Spec-IP, respectively. One argument for such an assumption has already been touched upon: only embedded V2 clauses allow topicalization of a non-subject constituent. However, this fact does not in itself provide solid evidence for the availability of Spec-CP, even though it is suggestive of it. As Reinholtz (1989) argues for Danish, topicalization in subordinate clauses may take place at a lower level, i.e. in the I-domain.

Assuming that a CP may embed another CP is not wholly unproblematic. Not only does it cast doubt on the notion of syntactic subordination; it also forces the assumption of a recursive C-domain. Since languages are recursive, this assumption would not be theoretically dubious in itself were it not for the fact that its application is limited to one cycle. This problem has of course been duly acknowledged (see e.g. Vikner 1995), even though CP-recursion is frequently assumed in the literature (see e.g. Julien 2007 and Bentzen et al 2007). In what follows, I will nevertheless defend the view of an embedded CP based on the distribution of negated subjects in the position immediately to the right of the complementizer.

4.1 Specifying the restrictions

As I discuss in Brandtler (2006), Spec-CP posits clear restrictions on the choice of possible negated subjects. Only quantified subjects may occur in this position: negated definite, generic or bare plural NPs are banned⁵:

- (8) a. Inte alla ville se den filmen
not everyone wanted (to) see that movie

⁵ Crucially, it is the semantic interpretation rather than the morphological form of the subject that poses this restriction. Thus, an indefinite NP is grammatical with non-specific reference (*Not a soul came to the party*), whereas a specific indefinite is banned (**Not a forum like this is the right place*).

- b. Inte många ville se den filmen
not many wanted (to) see that movie
- c. Inte en bil stod på gatan
not a car was on street-the
- (9) a. *Inte Sven ville se den filmen
not Sven wanted (to) see that movie
- b. *Inte pojkar ville se den filmen
not boys wanted (to) see that movie
- c. *Inte tigrar är randiga
not tigers are striped

Note that no such restriction holds of the I-domain – a clause adverbial may precede or follow any type of NP subject (cf. the definite subject of (3b) above). This difference can be readily accounted for with reference to the structural properties of the C- and I-domain respectively, the possibility of negation preceding the subject in the I-domain being the result of an upper NegP. In Spec-CP, the negative particle must form a constituent with the subject NP in order to uphold V2. In Brandtler (2006) I argue that the observed restriction on which constituents may incorporate negation reflects the semantic fact that the topic of an utterance must be outside the scope of negation⁶.

Now, putting the pieces together we would assume that if the position following the complementizer in embedded V2 clauses is Spec-CP the same restriction would hold: i.e. we would only expect to find negation preceding quantified subjects. In non-V2 complement clauses we would not expect such a restriction, however, since the projection following the complementizer is the upper NegP followed by Spec,IP⁷. To put it differently: the assumed V-to-C movement in embedded V2 clauses restricts the number of constituents between the complementizer and the finite verb to only one. Thus, only a subject that may incorporate negation may follow the complementizer, so only quantified subjects may come in question. This restriction is of course not relevant for non-

⁶ Note also that this observation is a very strong argument for assuming V-to-C movement in subject initial main clauses. It has sometimes been proposed that only non-subject initial main clauses are V-to-C, whereas subject initial are V-to-I (see e.g. Travis 1991 and Zwart 1993). If the position of a clause initial subject were to be Spec-IP, the uneven distribution of subjects in (8) and (9) would be unexpected.

⁷ It should be emphasized that Spec-IP according to all relevant criteria is a *syntactic* subject position, and hence not sensitive to the topical status of the subject. Thus we will find both expletive and quantified subjects in this position.

V2 complement clauses, since they would not exhibit any limitation on the number of constituents that may precede the finite verb.

4.2 Testing the prediction

One way of testing the prediction outlined above is naturally to form intuition based judgments on the grammaticality of comp+neg sentences. In order to do so, we must be able to differentiate between V2 and non-V2 sentences. This is not a wholly trivial problem. Negation is standardly used as a visible element marking the IP/VP boundary. But naturally, negation does not work for our purposes, since it is taken to occupy the upper NegP in the relevant variation. But negative polarity items (NPIs) do work – from (7b) above we saw that the NPI *någonsin* ('ever') seems to occupy the lower NegP. Thus, if the finite verb is in a position higher than the NPI, it has raised out of V to C (remember that I never provides a possible landing site in Swedish). And vice versa: if the finite verb remains in a position lower than the NPI, it must be in VP.

Let us now test the correctness of the following prediction:

PREDICTION

In embedded V2 clauses only quantified subjects are grammatical following negation in the position immediately to the right of the complementizer. Negated definite subjects are banned. In non-V2 complements no such restriction holds: negation may precede all kinds of subjects.

Using NPIs as IP/VP boundary markers, the prediction seems to be borne out. Whenever the verb precedes the NPI (and hence has moved out of VP) the negated subject must be quantified:

- | | | | | |
|--|---|-----|---|-----------|
| (10) a. Jag <u>tror</u> att inte Sven <i>någonsin</i> har varit i Tibro
I believe that not Sven ever has been to Tibro | } | -V2 | } | Assertive |
| b. Jag <u>tror</u> att inte alla <i>någonsin</i> har varit i Tibro
I believe that not everyone even har been to Tibro | | | | |
| c. *Jag <u>tror</u> att inte Sven har <i>någonsin</i> varit i Tibro | } | +V2 | | |
| d. Jag <u>tror</u> att inte alla har <i>någonsin</i> varit i Tibro | | | | |

- (11) a. Jag vet att inte Sven *någonsin* **har** varit i Tibro
 I know that not Sven ever has been to Tibro
 b. Jag vet att inte alla *någonsin* **har** varit i Tibro
 I know that not everyone ever has been to Tibro
 c. *Jag vet att inte Sven **har** *någonsin* varit i Tibro
 d. Jag vet att inte alla **har** *någonsin* varit i Tibro
- } -V2
 } Semi-factive
 } +V2
- (12) a. Jag beklagar att inte Sven *någonsin* **har** varit i Tibro
 I regret that not Sven ever has been to Tibro
 b. Jag beklagar att inte alla *någonsin* **har** varit i Tibro
 I regret that not everyone ever has been to Tibro
 c. *Jag beklagar att inte Sven **har** *någonsin* varit i Tibro
 d. *Jag beklagar att inte alla **har** *någonsin* varit i Tibro
- } -V2
 } Factive
 } +V2
- (13) a. Det är möjligt att inte Sven *någonsin* **har** varit i Tibro
 it is possible that not Sven ever has been to Tibro
 b. Det är möjligt att inte alla *någonsin* **har** varit i Tibro
 it is possible that not everyone ever has been to Tibro
 c. *Det är möjligt att inte Sven **har** *någonsin* varit i Tibro
 d. *Det är möjligt att inte alla **har** *någonsin* varit i Tibro
- } -V2
 } Non-assertives
 } +V2

In (10) and (11) the complement is embedded under an assertive and a semi-factive verb respectively, known to allow V2. Consequently, verb movement to C (as diagnosed by the post-verbal NPI) renders (10c) and (11c) ungrammatical, because the V2 restriction is violated: since negation cannot be incorporated into a definite noun phrase, two elements precede the finite verb. This restriction is of course only expected if the verb has raised all the way up to C; there are neither structural nor theoretical arguments for assuming a V2 restriction in the I-domain. By the same reasoning, the examples (10d) and (11d) are correctly predicted to be grammatical, however, since negation may be incorporated into quantified noun phrases; thus neg+QP will not lead to a violation of V2. This is the exact same restriction as was shown for main clauses in (8) and (9) above: only quantified subjects can be preceded by negation in Spec-CP in Swedish.

Naturally, both (10a) and (11a) are grammatical. From the NPI-diagnostic, we see that the verb has remained in situ in V. The complementizer takes the I-domain as a complement rather than the C-domain, hence no V2 restriction may apply. The structure can be accounted for by assuming an upper NegP as proposed above.

The predicates in (12) and (13) (factive and non-assertive) may never embed V2 complements in Swedish. Hence, we would expect all instances of the NPI following the finite verb to be ungrammatical – and this is also the case. We are then left with the grammatical examples in (12a, b) and (13a, b) which of course follow from the standard description of Swedish clause structure: an upper NegP precedes the subject in Spec-IP, and the verb (remaining in V) is preceded by the NPI.

All in all, the sentences in (10) to (13) provide solid evidence for our prediction: the position following the complementizer in embedded V2-clauses displays exactly the same restrictions as Spec-CP in main clauses. This distributional fact I take to constitute a very strong argument for assuming V-to-C movement in embedded V2 clauses in Swedish.

If the findings can be supported by the results from an empirical survey, the implications from the intuition based judgments would be further strengthened.

5. The Survey

The sentences in (10) to (13) above suggest that the assumption of V-to-C movement in embedded V2 clauses is correct. Intuition based judgments are important and might be sufficient, but should be backed up by actual language use in order to be entirely reliable. Testing the above prediction of subject distribution in different subordinate clauses is not entirely unproblematic, however. The obvious problem concerns how to successfully delimit V2-environments; remember that embedded V2 is never obligatory in Swedish. Furthermore, to the best of my knowledge there are no frequency studies on embedded V2, i.e. we do not know to which extent it occurs⁸. Thus, if we find a definite subject following negation in a V2 environment (which we wouldn't get if the prediction is correct), we cannot exclude the possibility that it is a non-V2 structure if no clause adverbial or polarity item is present in the structure. Consequently, we run into a vicious loop of circularity: we test the hypothesis on presumed V2-

⁸ Embedded V2 is prescriptively incorrect, which makes it rare in formal writing. Jörgensen (1978) provides some insight to the frequency of embedded V2 in different genres, both in spoken and written discourse. But only a few matrix verbs (among them *say* and *think*) are included in his material.

sentences (without actually knowing that they are V2), and any obvious counter-evidence can be explained by simply saying that the sentence in question is not V2 after all. So before moving any further, let us at least restrict the environments to V2-favourable ones.

5.1 V2-environments in Swedish

Much of the work on embedded V2 has been directed to the licensing problem, i.e. why only certain environments license V2. The details of the analyses differ, and I will only present a very brief overview here. For Andersson (1975), an embedded V2 clause is not semantically subordinated, even though syntactically so. A similar idea is echoed in Julien (2007), in that she argues that an embedded V2 clause is syntactically coded for the same illocutionary force as main clauses. Bentzen et al (2007) see embedded V2 as resulting from the complement clause being the “main point of utterance”, following Simons (2007). Common to these analyses is the observation that the embedded proposition must be asserted (in some sense of the term⁹): presupposed or backgrounded propositions will not license embedded V2. This observation in turn goes back to the hugely influential studies by Hooper & Thompson (1973) and Hooper (1975) on the applicability of root transformations in English. Ever since Andersson (1975), a direct correlation has been assumed between root transformations in English and the possibility of embedded V2 in Swedish: the same environments that license root transformations in English will license V2 in Swedish.

As Hooper (1975) points out, one characteristic property of predicates allowing root transformations in English is that they allow a parenthetical reading. This notion originates with Urmson (1952), who distinguished a group of predicates “whose peculiarity is that they can be used either parenthetically in the normal grammatical sense, or else followed by *that*, in either case with an indicative clause” (1952:495). Examples of such verbs are *think*, *believe*, *realize* and *afraid* (emphasis mine):

when these verbs are used *in the first person of the present tense*, as is very clear when they occur grammatically in parenthesis, *the assertion proper is contained in the indicative clause with which they are associated, which is implied to be both true and reasonable*. They themselves have not, in such a use, any descriptive sense but rather function as signals guiding the hearer to a proper appreciation

⁹ The importance of assertivity goes back to Hooper & Thompson (1973). It should be noted, however, that their definition of assertion is different from that of Stalnaker (1978), and closer to Simons’ (2007) notion of “main point of utterance”. For Hooper & Thompson (1973:473), “The assertion of a sentence may be identified as that part which can be negated or questioned by the usual application of the processes of negation and interrogation”.

of the statement in its context, social, logical, or evidential. (...) They [the parenthetical verbs] help the understanding and assessment of what is said rather than being a part of what is said.

(Urmson 1952:495)

As Hooper (1975:94) shows, Urmson's claim is supported by the syntactic behavior of parenthetical verbs: these verbs allow preposing of the complement clause, as opposed to non-parenthetical (factive) predicates such as *forget*, *regret* and *be sorry*:

- (14) a. He wants to hire a woman, he said
 b. This war will never end, we concluded
 c. The winters are very cold here, the guide explained
- (15) a. *She was a compulsive liar, he forgot
 b. *It was difficult to make ends meet, they regretted
 c. *Herman has not finished his work, I'm sorry

Only when the main clause is interpreted parenthetically are root transformations in the complement clause possible, and hence also V2 in Swedish. Note that if a parenthetical reading is less accessible – e.g. if the matrix clause is emphasized – V2 in the complement clause becomes considerably worse.

- (16) a. Jag tror att Maria **har** *inte* läst boken }
 I believe that Maria has not read book-the } +V2
 b. ??Jag TROR att Maria **har** *inte* läst boken }
 c. Jag TROR att Maria *inte* **har** läst boken }
 I believe that Maria not has read book-the } -V2
- (17) a. Jag antar att Maria **har** *inte* läst boken }
 I suppose that Maria has not read book-the } +V2
 b. ??Jag ANTAR att Maria **har** *inte* läst boken }
 c. Jag ANTAR att Maria *inte* **har** läst boken }
 I suppose that Maria not has read book-the } -V2

Admittedly, the distinction between parenthetical/non-parenthetical verbs is rather rough, especially considering the fact that all parenthetical verbs allow for non-parenthetical readings. Simons (2007) builds on Urmson's idea, but focuses on the complement itself rather than the embedding predicate. Only when the

embedded proposition contains “the main point of utterance” are V2 and root transformations licensed. In an attempt to avoid the difficulties associated with parenthetical readings, Simons goes on to propose certain tests for distinguishing the main part of the utterance. Unfortunately, there are problems connected with this approach as well, as discussed by Julien (2007).

However, the general tendency can be stated as follows: embedded V2 is sensitive to the semantic status of the proposition. If it is asserted (or constitutes the main part of the utterance) V2 will be licensed. If for some reason the assertive status of the complement clause is weakened, embedded V2 may not apply. This is why we do not find V2 in presupposed complements following factive verbs. Also, embedded V2 is rarely found in clause initial complements (since such propositions often have a presuppositional flavor, see Horn 1986:172-3), or in complements following negated predicates. Other environments disfavoring V2 are questions and complement clauses embedded under another complement clause:

- (18) a. *Att Bush **kunde** *inte* delta^g rapportera^d av Reuters
 that Bush could not participate was reported by Reuters
- b. *Han sa inte att han **kommer** *förmodligen* ikväll
 he said not that he comes probably tonight
- c. *Vet du att han **vill** *inte* komma ikväll?
 Know you that he wants not (to) come tonight
 ‘Are you sure he doesn’t want to come tonight?’
- d. *Jag undrar om han sa att han **kommer** *inte* ikväll
 I wonder if he said that he comes not tonight

5.2 Methodology

I have surveyed the complements of 22 different predicates in Swedish. 13 of these are known to allow embedded V2 and may be used parenthetically. The remaining predicates are observed to disallow parenthetical readings or embedded V2 in their complements. The material is taken from Internet using Google. This was really a necessity, since no available language corpora proved big enough for any significant result. Even with Google, I only found a handful of examples for some predicates. For this reason, it was impossible to restrict the survey to sentences with an overt clause adverbial/polarity item marking the IP/VP boundary as in sentences (10) to (13) above. Predicates with less than five occurrences have been left out of the study.

In an attempt to eliminate all environments known to disfavor V2, I only surveyed predicates in the first person present tense (in accordance with Urm-

son's notion of parentheticals). The following principles guided the excerpting process:

- For each predicate, I searched the string “subj.1p + verb.pres + comp + neg”, e.g. *jag tror att inte* (‘I think that not’).
- Only complement clauses containing a finite verb were included, since auxiliary deletion is a well-known property of standard subordinate clauses in Swedish.
- The subordinating predicate had to be part of a main clause, i.e. not embedded in other clauses (see 18d) above).
- Both direct and indirect questions were omitted.

In the following section, the results from the survey are presented.

5.3 Results

The fact that embedded V2 never is obligatory in Swedish complement clauses severely complicates our understanding of the results. That is, we cannot expect an exact correlation in accordance with the prediction: a certain number of definite subjects following negation may occur even in complements to parenthetical verbs (i.e. when they are not used/interpreted parenthetically, see the discussion above). Hence, the occurrence of negated definite subjects in V2-environments does not in itself falsify the hypothesis. But if the number of negated definite subjects is significantly higher in non-V2 environments, it will constitute support for the intuition based judgments presented above.

Let us now consider the parenthetical predicates (in the first person present tense), all known to allow embedded V2. Note that table 1 contains the three distinct groups noted to allow root transformations in English: strong and weak assertives and semi-factives. If our prediction is correct, we would assume few definite subjects following negation (in the post-complementizer position). But as is evident from table 1, the predicates display rather big differences:

Table 1: Parentheticals

Predicate	Definite NPs	Total	% def. NP
<i>Rädd att</i> ('afraid')	3	10	30
<i>Hävda att</i> ('claim')	-	5	-
<i>Mena att</i> ('mean')	1	15	7
<i>Anta</i> ('presume')	6	25	24
<i>Säker på att</i> ('sure of')	3	23	13
<i>Tycka</i> ('think')	6	14	43
<i>Tro</i> ('believe')	10	25	40
<i>Gissa</i> ('guess')	5	25	20
<i>Förmoda</i> ('assume')	1	7	14
<i>Förstå</i> ('understand')	3	25	12
<i>Tänka sig</i> ('imagine')	5	25	20
<i>Se</i> ('see')	-	7	-
<i>Inse</i> ('realize')	1	21	5
<i>Total</i>	44	227	19

For both *tro* ('believe') and *tycka* ('think') the numbers are unexpectedly high, 40% and 43% respectively. However, these numbers correlate quite well with Jørgensen's (1976:71) findings: according to his survey, 52% of subordinated clauses following *tro* and 69% of complements following *tycka* take embedded V2. The predicates *rädd* ('afraid') and to a lesser extent *anta* ('presume') also show rather high numbers of definite subjects following negation: 30% and 24% respectively. But since the hits for each predicate are quite few, the total amount of definite subjects following negation may give a better overview: 44 of a total of 227 subjects were definite following negation, or 19%. Omitting *tro* and *believe* the total is 15% (28/188).

Even though the results from this survey do not uniformly conform to the prediction, it should be noted that the numbers should reflect each predicate's tendency to take embedded V2. If this assumption is correct, *mena* ('mean') is more likely to take V2 complements than *tycka* ('think'), since the number of definite subjects is fewer.

Let us now turn our attention to the non-parenthetical verbs (in Hooper & Thompson 1973 distinguished as factives and non-assertives). These predicates are well-known to disallow V2 in their complements. Consequently, we should expect no limitation of the kind of subject that follows negation. The results are presented in table 2 below:

Table 2: Non-parentheticals

Predicate	Definite NPs	Total	% def. NP
<i>Ångra</i> ('regret')	9	9	100
<i>Vara glad</i> ('be glad')	23	25	92
<i>Vara ledsen</i> ('be sorry')	13	15	87
<i>Beklaga</i> ('regret')	12	24	50
<i>Förvånad över</i> ('surprised')	17	24	71
<i>Vara möjligt</i> ('be possible')	12	25	48
<i>Vara konstigt</i> ('be strange')	16	25	64
<i>Vara underligt</i> ('be strange')	12	18	66
<i>Total</i>	130	190	68

By comparing the numbers in table 1 and 2, we may distinguish an obvious difference: every single predicate in table 2 has a higher percentage of definite subjects following negation than any predicate in table 1. For some predicates the percentage of definite subjects is very high: *ångra* ('regret') 100%, *vara glad* ('be happy') 92% and *vara ledsen* ('be sorry') 87%. In sum, 130 negated subjects out of 190 were definite, or 68% - that is 49 percentage units higher than for the parenthetical predicates.

The findings of this quantificational study may not seem entirely convincing in itself. However, taken together with the intuition based judgments in the previous section, it clearly points to a difference between parenthetical and non-parenthetical verbs which is in line with the prediction of subject distribution sketched above. The fact that negated definite subjects are less likely to occur in complements following parenthetical verbs is important: there is no obvious reason for this distributional restriction if do not assume V-to-C movement.

6 Conclusion

In this paper, I have argued that embedded V2-clauses unambiguously display V-to-C movement in Swedish. The observed distributional facts provide strong arguments for this assumption. Since embedded V2 clauses display the exact same restriction we find in the Spec-CP of main clauses, we have a solid argument for assuming that the position following the complementizer in embedded V2 clauses is not any random A'-position but Spec-CP. The claims are supported by both intuition based judgments and the results from a corpus survey. I have argued that the position following the complementizer can be used in distinguishing between V2 and non-V2 complements in Swedish, and thus presented a new tool for analysing the different structures.

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