

Finiteness in Swedish*

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Abstract

This paper investigates tenseless finite clauses in Swedish. In certain contexts the finite perfect auxiliary, *ha* ‘have’, is optional. These contexts are finite non-V2 clauses and V2 clauses in which the V2 position is filled by a modal adverb, for example *kanske* ‘maybe’. The analysis of these tenseless clauses is presented in the constraint based lexicalist theory, lexical functional grammar. The analysis builds on, and develops, the one presented by Sells (2007).

1 Introduction

Finiteness is an illusive concept and linguistic theories differ in how they treat it. One thing that most researchers agree on is that there are various ways to realize finiteness, if it is realized at all. The conclusion that Nikolaeva (2007) arrives at is that the realization of finiteness is language particular. In V2 languages the standard account is that finiteness is indicated by the placement of the finite verb in second position in main clauses.¹ This is also the case in Swedish. In main clauses the finite (tensed) verb occupies the second position. Embedded clauses have SVO order. However, there are cases where main clauses do not show V2. The clausal adverbs, *kanske*, ‘maybe’ *kanhända* ‘maybe’ and *måhända* ‘maybe’, may put the V2 requirement out of play. Compare (1) and (2).

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¹V2 languages differ in how finiteness is realized in subordinated clauses.

- (1) a. Lisa kanske gick tidigare.
Lisa maybe left earlier
'Maybe Lisa left earlier.'
- b. Lisa kanhända läser boken imorgon.
Lisa maybe reads the book tomorrow
'Maybe Lisa will read the book tomorrow.'
- c. Lisa måhända läste boken redan igår.
Lisa maybe read the book already yesterday
'Maybe Lisa read the book already yesterday.'
- (2) a. Lisa gick kanske tidigare.
Lisa went maybe earlier
'Maybe Lisa left earlier.'
- b. Kanhända läser Lisa boken imorgon.
maybe reads Lisa the book tomorrow
'Maybe Lisa will read the book tomorrow.'
- c. Måhända läste Lisa boken redan igår.
maybe read Lisa the book already yesterday
'Maybe Lisa read the book already yesterday.'

These modal adverbs interact in interesting ways with another grammatical phenomenon, *ha*-deletion. As pointed out by Andersson and Dahl (1974), in Swedish it is possible to delete finite *ha* 'have' in embedded clauses. However, Sells's (2007) claims that this is possible in main clauses too, as long as *kanske* occupies the second position in the clause. As seen in (3a), *hade*, the past tense form of 'have' is optional in the embedded clause. In main clauses finite *ha* cannot be deleted, (3b). The only exception, Sells claims, is when the modal adverb is present in second position, (3c).

- (3) a. Johan sa att Lisa (hade) gått tidigare än vanligt.
Johan said that Lisa (had) gone earlier than usual
'Johan said that Lisa had left earlier than usual.'
- b. *Lisa gått tidigare än vanligt.
Lisa gone earlier than usual
'Maybe Lisa has/had left earlier than usual.'

- c. Lisa kanske gått tidigare än vanligt .
 Lisa maybe gone earlier than usual
 ‘Maybe Lisa has/had left earlier than usual.’

However, the data for finite *ha* deletion is even more complex than this. The modal adverb does not have to appear in second position. The only requirement is that it appears before the main verb:

- (4) a. Kanske Lisa gått tidigare än vanligt.
 maybe Lisa gone earlier than usual
 ‘Maybe Lisa has left earlier than usual.’
- b. Idag kanske Lisa läst boken.
 today maybe Lisa read the book
 ‘Maybe Lisa has read the book today.’

The structure of this paper is as follows. The first section after the introduction gives an overview of Swedish clause structure and makes explicit some of the assumptions about word order and clause type. Section 3 provides more information on in what contexts *ha*-deletion is possible. In section 4 we take a closer look at the modal adverbs that are obligatory in main clauses without finite verbs. In section 5, Sells’s (2007) analysis of finiteness is presented. Section 6 presents an account of the deletion of finite *ha* in Swedish main clauses. The last section is a conclusion.

2 Word order and clause type

Word order phenomena in the Scandinavian languages are often phrased in type of clause in the sense that V2 clauses are said to have “main clause word order” or that main clauses have V2. Embedded clauses do not have V2, and are said to have “embedded clause word order”, which in Swedish is SVO. However, these orderings are only the prototypical word orders that we find. It is important to make a distinction between clause types on the one hand, and clausal word order on the other. I will follow Teleman et al.’s definition of main clauses, or root clauses. Teleman et al. (1999, Vol IV, 674) define a

main clause as a clause that does not have a clause function in another clause. Consequently, an embedded clause is a clause that has a clause function in another clause.

Concerning word order, Teleman et al. (1999) make a distinction between two types: a-f order and f-a order.² The a stands for clausal adverb and the f for finite verb. The rule of thumb is that main clauses have f-a order, as in (5a) and embedded clauses have a-f order, as in (5b).

- (5) a. Lisa kan_f inte_a komma idag.
 Lisa can not come today
 'Lisa can't come today.'
- b. Kalle sa att Lisa inte_a kan_f komma idag.
 Kalle said that Lisa not can come today
 'Kalle said that Lisa can't come today.'

As seen in (5a) f-a order is the same as V2. However, all four combinations of the two parameters, clause type and word order, are possible. In (6a), the embedded clause has f-a order. Typically, this clause shows all characteristics of main clauses, for example topicalization of a constituent is possible. This is not possible in embedded a-f clauses, as in (6b).³

- (6) a. Kalle sa att idag kan_f Lisa inte_a komma.
 Kalle said that today can Lisa not come
 'Kalle said that Lisa can't come today.'
- b. *Kalle sa att idag Lisa kan_f inte_a komma.
 Kalle said that today Lisa can not come
 'Kalle said that Lisa can't come today.'

The fourth possibility is a-f order in main clause. This is not a very common order but in addition to the modal adverbs mentioned in the previous section, there are certain (exclamative) phrases that are not clauses themselves, but which subcategorize for a-f clauses. Examples are, *aldrig*, 'never' *så tusan*

²The ordering is based on Diderichsen's (1946) clause schema.

³This paper is not concerned with these phenomena, often called embedded root phenomena. For an overview, see Heycock (2005).

‘the hell’ and *i helvete heller* ‘the hell’. We will look at these in more detail in the section 3. As mentioned, the modal adverbs may change the word order between a (a clausal adverb) and f (the finite verb). The result is an a-f clause that shows the characteristics of f-a clauses. These clauses are not V2 in a strict sense, but they show the properties of V2 clauses. We will get back to these clauses, too. All four combinations of main vs. subordinate and a-f vs. f-a order will be relevant in teasing out the properties of *ha*-deletion.

3 *Ha*-deletion

It seems that of the Scandinavian languages only Norwegian and Swedish allow deletion of (some instances) of non-finite *ha*. This is possible in both main and subordinate clauses:

(7) *Swedish*

- a. Lisa skulle (ha) gått tidigare.
Lisa should (have) gone earlier
‘Lisa should have left earlier.’
- b. Jag sa att Lisa skulle (ha) gått tidigare.
I said that Lisa should (have) left earlier
‘I said that Lisa should have left earlier.’

(8) *Norwegian*

- a. Lisa skulle (ha) gjort det før.
Lisa should (have) done it before
‘Lisa should have done it before.’
- b. Jag sa att Lisa skulle (ha) gjort det før.
I said that Lisa should (have) done it before
‘I said that Lisa should have done it before.’

There is no difference in meaning between the sentences with and without ‘have’.⁴ However, only in Swedish do we find deletion of finite *ha*. The fact

⁴It has been claimed that *ha* cannot be deleted if we want to maintain the “result reading” (Wiklund, 2001), but this is not the case. The temporal adverbs are very important in the

that omission of finite *ha* is possible in embedded clauses was noted by Andersson and Dahl (1974) and used as an argument against Ross's claim (1973) that there are no syntactic processes that apply only in embedded clauses, and not in main clauses. Andersson and Dahl point out that deletion of finite *ha* in embedded clauses is unrestricted. It is more common in written language, even if it's becoming increasingly common in spoken language (Teleman et al., 1999, 272). It is only mentioned indirectly in the Swedish reference grammar (Teleman et al., 1999, Vol IV, 22) that finite *ha* can be omitted in main clauses. It is indicated by means of parenthesis, as in (9).^{5, 6}

- (9) a. Han kanske inte (har) varit där idag.
 he maybe not (has) been there today
 'Maybe he hasn't been there today.'
- b. Kanske han inte (har) varit där idag.
 maybe he not (has) been there today
 'Maybe he hasn't been there today.'

interpretation and given that the adverbial specifies a "deadline" with the preposition *tills* 'until', a result reading is default:

- i Jag sa till dig att du skulle (ha) läst boken tills i lördags/imorgon.
 I said to you that you should (have) read the book until Saturday/tomorrow
 'I told you to have read the book by Saturday/tomorrow.'

⁵The reason that Teleman et al. (1999) do not discuss this might be that the examples in (9) are embedded clauses according to one definition: a clause that has adverbial-finite verb order and allows deletion of *ha* (1999, Vol IV, 675), but they are also main clauses according to the definition in section 2: a clause that has no clause function in another clause (1999, Vol IV, 674). This is yet an example of how closely connected word order and clause type are in the literature.

⁶With *ha*-deletion it is strictly speaking impossible to identify the position of *ha* since it could overtly be in V2 in (9), as in (i).

- i Han har kanske inte varit där idag.
 he has maybe not been there today
 'Maybe he hasn't been there today.'

But since *ha* must be present in (10), where it cannot occur in any other position, it is a reasonable generalization that it does not occupy the V2 position in (9).

Semantically, there seems to be no restriction on the deletion. In all the uses of perfect listed in Dahl (1985, 132–133), the meaning of the perfect is maintained under *ha*-deletion. Consequently, the conditions that govern *ha*-deletion must be grammatical rather than semantic.

As noted in (9), it is possible to exclude *har* when it is preceded by the adverb *kanske* ‘maybe’. If the adverb comes after *ha*, *ha* is obligatory in second position:

- (10) a. Idag *(har) han kanske inte varit där.
 today has he maybe not been there
 ‘Today maybe he hasn’t been there.’
- b. Han *(har) kanske inte varit där idag.
 he has maybe not been there today
 ‘Maybe he hasn’t been there today.’

This indicates that the possibility of *ha*-deletion is not related to the semantics of the adverb, only its effect on word order. There are other adverbs that have similar meaning as *kanske*, *måhända*, and *kanhända* (all corresponding to ‘maybe’). However, these adverbs do not affect the word order and they do not allow *ha*-deletion:

- (11) a. Möjligen *(har) han (*har) varit där idag.
 possibly (has) he (has) been there today
 ‘Possibly he has been there today.’
- b. Antagligen *(har) han (*har) varit där idag.
 probably (has) he (has) been there today
 ‘Probably he has been there today.’
- c. Troligen *(har) han (*har) varit där idag.
 probably (has) he (has) been there today
 ‘Probably he has been there today.’

What is striking about the deletion of *ha* in main clauses is that it is only possible when *ha* does not occupy the second position and we get a-f word order. As we saw in (10b), *ha* is obligatory in f-a, V2, word order clauses. There are further indications that the word order is of special importance.

Certain phrases that questions or confirms the degree of truth in a clause may get a-f word order. Since these clauses do not have a clause function in another clause, they are by definition main clauses (Teleman et al., 1999, Vol IV, 22). In these clauses, too, is it possible to omit finite *ha*:

- (12) a. *Aldrig* att han inte (har) varit där idag.
 Never that he inte (has) been there today
 ‘No way he hasn’t been there today.’
- b. *Så fan* (att) han inte (har) varit där idag
 so damn (that) he inte (has) been there today
 ‘Hell no, he hasn’t been there today.’
- c. *I helvete (heller)* (att) han inte (har) varit där idag.
 in hell PART (that) he not (has) been there today
 ‘Hell no, he hasn’t been there today.’

In the examples in (12), the position of the negation clearly shows that these clauses have a-f word order, even though they are not embedded clauses. The complementizer *att* ‘that’, which is optional, is also a clear indication that the clauses with *ha*-deletion are a-f clauses. The sentences in (12) are, to my knowledge, the only examples of unembedded clauses, introduced by a complementizer and with a-f word order. These clauses have a fixed structure and it is impossible to have V2 clauses instead, and no element, such as a wh-word, can be extracted from the *att*-clause. It’s not even possible to reformulate these sentences into questions.

As mentioned in section 2, some contexts allow embedded clauses with V2 word order. Interestingly, the embedded V2 clauses do not allow *ha*-deletion, (13a). However, if one of the modal adverbs is present preverbally, as explained in connection to (11), *ha*-deletion is possible, (13b). Since the adverb *där* ‘there’, is topicalized in the embedded clauses in both (13a) and (13b), these embedded clauses are only superficially a-f clauses. It is impossible to topicalize a constituent in an embedded clause with a-f word order.

- (13) a. Lisa sa att där *(har) han inte varit idag.
 Lisa said that there has he not been today
 ‘Lisa said that he hasn’t been there today.’
- b. Lisa sa att där kanske han inte (har) varit idag.
 Lisa said that there maybe he not (has) been today
 ‘Lisa said that he hasn’t been there today.’

We will look closer at the effect these adverbs have on word order in section 4. For now, we come to the conclusion that the answer to the question when deletion of finite *ha* is possible will depend on clause type and word order. Another way to pose the question is: when is *ha*-deletion *not* possible? The answer to this question is that it is possible as long as *ha* does not occupy the V2 position, (see also Sells, 2007). As will be clear in section 6 looking at the cases where *ha*-deletion is not possible, makes it possible to give a unified account of deletion of both finite and non finite *ha*.

Further evidence that *ha*-deletion is related to V2 comes from main clauses (defined as above) with wh-exclamatives (see Delsing, 2010). This is a type of main clause that has a-f order, and not f-a order. As predicted, *ha*-deletion is possible in these clauses:

- (14) a. Så/Vilken fin tavla Lisa (har) målat!
 so/what a nice painting Lisa (has) painted
 ‘What a nice painting Lisa has made!’
- b. Så/Vilka små servetter du (har) knypplat!
 so/what tiny napkins you (have) tatted
 ‘What tiny napkins you have tatted!’
- c. Så långt Eva (har) sprungit!
 so far Eva (has) run
 ‘What a distance Eva has run!’

However, when *ha* is not in V2 position it is always adjacent to the lexical verb. It is tempting to draw the conclusion that it is this fact, rather than non-V2 position that makes *ha*-deletion possible. If we look at VP topicalization, it seems that adjacency is really what matters. In (15) deletion is possible only

when *ha* is followed by a dummy verb in supine form, (15c). And contrary to the predictions of the non-V2 position, (15b) is not well formed without *ha*.

- (15) a. Läst boken har hon ?(gjort).
 read the book has she (done)
 ‘Read the book she has.’
- b. Läst boken kanske hon (*har).
 read the book maybe she has
 ‘Read the book, she maybe has.’
- c. Läst boken kanske hon (har) gjort.
 read the book maybe she done
 ‘Read the book, she has.’

But an account that relies on adjacency between *ha* and the main verb misses an important aspect of *ha*-deletion. Even though *ha*-deletion is possible when *ha* is both finite and non-finite, it seems that only finite clauses (to be discussed in section 5) allows deleted *ha*. If there is no finite verb (including deleted finite *ha*) deletion is not possible.

- (16) a. Lisa kunde (ha) läst boken innan.
 Lisa could_{fin} have read the book before
 ‘Lisa could have read the book before.’
- b. Lisa lovade att hon (hade) läst boken innan du
 Lisa promised that she (had_{fin}) read the book before you
 kom.
 came
 ‘Lisa promised that she had read the book before you came.’
- c. Lisa lovade att *(ha) läst boken när du
 Lisa promised to *(have-INF) read the book before you
 kommer.
 come
 ‘Lisa promised to have read the book before you come.’

In addition, if adjacency is all there is to *ha*-deletion, it remains a mystery why it is not possible when *ha* and the main verb are adjacent in V2 clauses:

- (17) Lisa *(har) lovat att göra det.
 Lisa has promised to do it
 ‘Lisa has promised to do it.’

Since V2 is connected to finiteness, and *ha*-deletion has connections to V2 in finite clauses, the most fruitful approach is one that tries to unite finiteness and V2, instead of pursuing an approach that only looks at linear adjacency and will have to make additional stipulations about finite and non-finite clauses. The reason *ha* cannot be deleted in (15b) may be that V cannot be empty in VP topicalization. Note that when *ha* occupies V2 the dummy verb *göra* ‘do’ is inserted in V, or a left-dislocation structure is used:

- (18) Läst boken, det har hon.
 read the book, that has she
 ‘Read the book, she did that.’

To sum up this section, it seems that *ha*-deletion is possible when finite *ha* does not occupy the V2 position. Whether this is in a main clause or in an embedded clause is irrelevant, as long as the clause is finite. Consequently, there is no need to stipulate different accounts of finite *ha*-deletion in embedded and main clauses. Having teased out the empirical intricacies of finite *ha*-deletion, we now turn to the questions that arise in connection to the data. The empirical generalization that *ha* can be omitted if it does not occupy V2 raises several questions. First, why is it only finite *ha* that can be omitted? In Swedish, no other finite auxiliaries can be omitted, no matter how “evident” they are from the context. The second question is what is the role of the V2 position. And in relation to V2, what is special about the three modal adverbs that change the word order. The remaining parts of the paper will deal with these three issues. In the next section we will look at the adverbs and how it comes about that they make *ha*-deletion possible. After that we will turn to the V2 position which is intricately connected to the notion of finiteness, but crucially not the same thing. In the analysis in section 6, I try to answer the question why *ha* is the only finite verb that can be omitted.

4 The modal adverbs

The adverbs that may appear in V2 are *kanske*, *kanhända*, and *måhända* (see also Holmberg and Platzack, 1995, 50). Etymologically they are based on verb forms: *kan*, *ske*, *må* and *hända*, ‘can’, ‘happen’, ‘may’ and ‘happen’, respectively. These verbs are still used in modern Swedish, even though *ske* and *må* may have an archaic ring to them. A quick corpus search gives the following numbers (approximately).⁷ *Kanske* occurs 630 000 times, *måhända*, 4 000 times, and *kanhända* gets 1000 hits. Since *kanske* is the most common adverb, I will concentrate the discussion around it.⁸

The fact that these adverbs are formed from verbs is apparent for several reasons. They can still easily be interpreted as separate with the paraphrase something like ‘It may happen (that ...)’. As mentioned above, they show slightly different behaviour, but even with *kanske* which usually is not split into *kan* and *ske*, the verbal behaviour is still present. First, in clause initial position *kanske* may be followed by the complementizer *att* ‘that’. The negation in (19b) shows that this clause is an ordinary embedded clause with a-f word order.

- (19) a. *Kanske att Malin skulle kunna vara där.*
 maybe that Malin would can_{inf} be there
 ‘Maybe Malin would be able to stay there.’
- b. *Kanske att hon inte har bestämt sig än.*
 maybe that she not has decided yet
 ‘Maybe she hasn’t decided yet.’

This is an indication that *kanske* is still verbal in nature. Verbs are not the only class that takes ‘that’-clauses as complements. Some nouns, such as *beslut*, *förslag* and *nyhet*, ‘decision’, ‘proposal’ and ‘news’, respectively, can have

⁷The searches were lexical searches in all available corpora at <http://spraakbanken.gu.se/korp/>

⁸The adverbs show slightly different behaviour in the corpora: only *kanske* occurs clause initially followed by ‘that’; *kanske* never occurs as *kan ske* (the other adverbs can be separated and can in those cases take a complementizer and in addition an expletive subject), there is one hit with *kanhända* + complementizer (no hits for the other adverbs).

them, too. However, *kanske* is the only adverb that selects for a ‘that’-clause. If *kanske* was a genuine verb (or two verbs) we expect it to take an expletive subject, as (20a), but this is not possible, as seen in (20b):

- (20) a. Det kan ske att minnet sviker mig.
 it may happen that the memory fails me
 ‘It may be the case that my memory fails me.’
- b. *Det kanske att minnet sviker mig.
 it maybe that the memory fails me
 ‘It may be the case that my memory fails me.’

In Swedish the complementizer *att* is optional in most contexts, and this is also a possible description of the sentences in (21), the case with initial *kanske*:

- (21) a. Kanske Malin skulle kunna vara där.
 maybe Malin would can_{inf} be there
 ‘Maybe Malin would be able to stay there.’
- b. Kanske hon inte bestämt sig än.
 maybe she not decided refl. yet
 ‘Maybe she hasn’t decided yet.’

It is worth pointing out that it is impossible to have the complementizer in case *kanske* is not in initial position.

- (22) a. *Hon kanske att inte har bestämt sig än.
 she maybe that not has decided refl yet
 ‘Maybe she hasn’t decided yet.’
- b. *Hon har inte bestämt sig än kanske att.
 she has not decided refl yet maybe that
 ‘Maybe she hasn’t decided yet.’

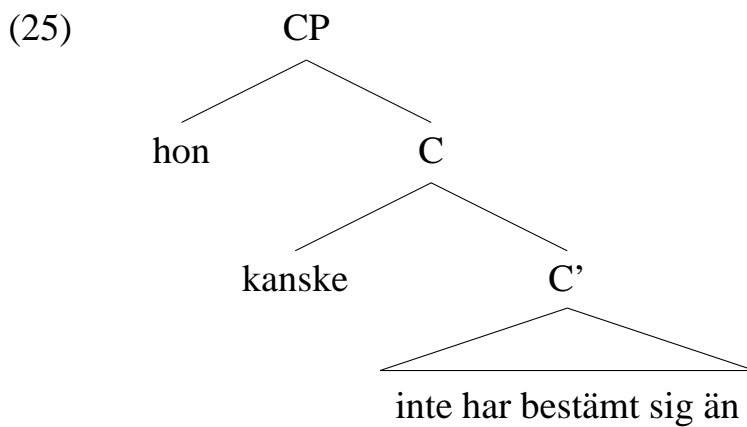
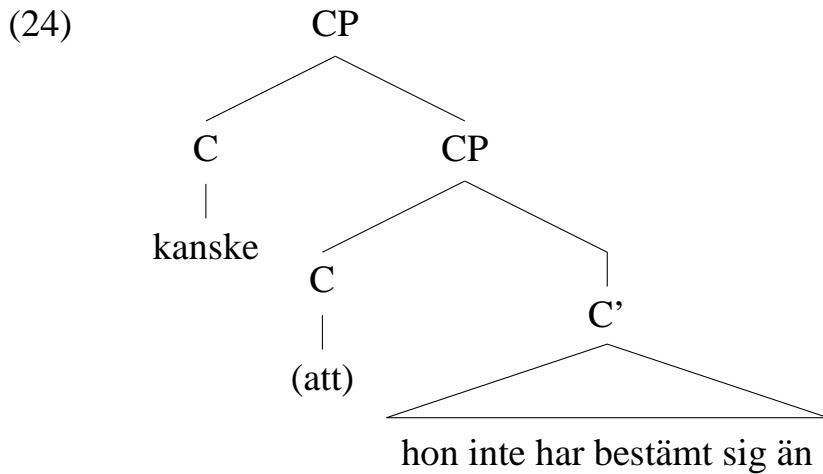
One way to account for the difference in the possibility of taking a complementizers would be to posit two types/synonyms of *kanske*. One *kanske* is “verb like” and takes a standard a-f clause as complement, with or without the complementizer *att*. The result is a bi-clausal structure, although the main clause is of a special kind. It does not allow any kind of subject. The other

kanske is an adverb (though a special one that may appear in V2 position) and it is integrated in the clause. In this case the result is a mono-clausal structure.

A further argument for positing two version of *kanske* is that in initial position the two *kanske* can give rise to different word orders. As we saw in (19b) and (21b) when the ‘verbal’ *kanske* is in initial position, the embedded clause has a-f word order, the prototypical word order in embedded clauses (it’s embedded by definition, since it is the complement of *kanske*). This is obligatory. When the ‘adverb’ *kanske* is initial, V2 word order, the prototypical main clause word order, is possible, as in (23a). With the verbal *kanske* this is impossible (at least with overt *att*), (23b).

- (23) a. Kanske har hon inte bestämt sig än.
 maybe has she not decided yet
 ‘Maybe she hasn’t decided yet.’
- b. *Kanske att har hon inte bestämt sig än.
 maybe that has she not decided yet
 ‘Maybe she hasn’t decided yet.’

One argument for not positing only a bi-clausal analysis (with or without *att*) is that a clause element that is part of the embedded clause can occupy the pre V2 position. This would be a very strange kind of raising. Firstly, because the “embedded” clause has a finite verb, and raising from finite clauses in Swedish is not allowed in general. Secondly, because the position the constituent is being raised to, is a non-thematic position, but as we saw above, in (20b), this position cannot be occupied by an expletive. The expletive is otherwise obligatory with raising verbs if nothing is raised. The conclusion we can draw from this behaviour is that there are two versions of *kanske*; one that takes an embedded clause as complement, see structure (24), and one which is an adverb that for some reason can occupy V2, see structure (25).



Presumably *kanske* in (24) and (25) occupies the same position as the finite verb. Whether V2 is the verb in C⁰, or in I⁰, is not important for the analysis (cf Börjars et al., 2003).

The lexical entries of the verbal *kanske* that takes a complementizer and the adverb *kanske* are given in (26a) and (26b), respectively.

- (26) a. *kanske*: PRED='maybe⟨(↑COMP)⟩'
 TENSE = PRESENT
- b. *kanske*: PRED='maybe'

Since *kanske* in (26a) does not subcategorize for a subject, not even a non-thematic one, the prediction is that the embedded 'that'-clause cannot function as a subject. Contrary to other raising predicates, such as *är möjligt* 'is possible' this is the case with *kanske*, and the prediction is borne out:

- (27) a. * Att hon inte har bestämt sig än kanske.
that she not has decided refl yet maybe
'That she hasn't decided yet maybe.'
- b. Att hon inte har bestämt sig än är möjligt.
that she not has decided refl yet is possible
'That she hasn't decided yet is possible.'

Given that there are two *kanske*, with the feature set up as described above, Sells's observation that *kanske* must occupy the V2 position in V2 clauses to make *ha*-deletion possible is still valid.

5 Finiteness

As pointed out in the introduction, finiteness is a very difficult notion to pin down. Sells (2007, 59) separates finiteness into four different uses of 'finite':

- (28) a. finite as a value of a form feature of verbs (Finite in Sells's terminology);
- b. finite as a formal grammatical property of clauses (typically expressed by a finite form) (FINITE in Sells's terminology);
- c. finite as a formal property that certain elements may be sensitive to, such as agreement, complementizer selection, or the presence or form of negation;
- d. finite as a property of clauses used to make an assertion.

In his analysis of Swedish, Sells (2007) assumes, in line with Andersson (1975) and Wechsler (1991) among others, that V2 is a property that indicates the speaker's commitment to an assertion, FORCE ASSERT, in Sells's terms. In order to type a clause as having FORCE ASSERT, the form Finite (a in list (28)) need to appear in V2. The main point is that V2 is not directly related to finiteness. This makes sense since non-V2 clauses can be FINITE (b in the list), too. Sells assumes that *kanske* has the form feature Finite (p.77), which types the clause as FINITE . According to Sells (pp80-81) it is possible to

omit *ha* since *kanske* in V2 position gives the finite clause its “finiteness”. The result is a non-tensed finite clause.

Since *ha*-deletion is possible in non-V2 clauses without *kanske*, the morphological feature Finite must come from somewhere else. According to Sells the fact that the embedded clause in (29) is FINITE is recoverable from the nominative case on the subject (from Julien, 2002).

- (29) Lisa sa att han/*honom gjort det.
 Lisa said that he/*him done it
 ‘Lisa said that he has/had done it.’

In Swedish, FINITE as a marker of clauses is necessary for complementizer selection. Sells claims that the relative complementizer *som* ‘that’ selects a clause of type FINITE:

- (30) Lisa hittade boken som (har/hade) varit försvunnen.
 Lisa found the book that (has/had) been lost
 ‘Lisa found the book that has/had been lost.’

In many respects Sells’s analysis of Swedish makes sense but there are still some questions that need answering. For example, where does the feature Finite come from in (30), when there is no overt subject with case? Why does not *kanske* type a non-finite clause as finite? Why is *ha* the only verb that can be omitted? In the following section I will try to answer these questions, or at least suggest approaches that seem promising.

6 Towards an analysis

This section develops Sells’s analysis, and deals with some aspects that are left out from it. First we look at *kanske* and its relation to the feature Finite. After that we examine how much information case can give us concerning FINITENESS. Next, we look at the subjectless clauses and *som*. I also give an analysis of why *ha* is not optional in non-finite clauses. Finally, in relation to why *ha* is the only verb that is optional, the perfect aspect is discussed.

6.1 *kanske*

The major problem with Sells's assumption that the adverb *kanske* has the feature Finite is that it occurs in non-finite clauses. In (31) *kanske* does not type the embedded clause as FINITE.

- (31) Vi har pratat om att kanske skaffa hund.
 we have talked about that maybe get dog
 'We have talked about maybe getting a dog.'

I will not present a solution to this problem here. One possibility is that V2 and its instantiation is sensitive to something else other than Finite; a feature which both finite verbs and *kanske* share. According to Sells *kanske* cannot have the feature tense (p77). He does not give any argument for this but it is a reasonable conclusion if tense on a verb is the morphological marking of Finite in Swedish. Just as *kanske* may have a formal feature Finite for historical reasons, it may still retain other verbal properties.

6.2 Finiteness and Swedish case

We next turn to embedded (non-V2) clauses typed as FINITE. According to Sells, nominative case on the subject in (29) tells us that this is a clause of type FINITE. There is one serious problem with this: case is morphologically virtually absent in Swedish, except on certain pronouns. Much the same as the situation is in English.⁹ A full NP is not morphologically marked for case so the form feature Finite cannot be part of case morphology in Swedish:

- (32) Lisa sa att den nya läraren (hade) gjort det.
 Lisa said that the new teacher (had) done it
 'Lisa said that the new teacher had done it.'

And even if we want to maintain that Finite is part of case morphology only when visible, we run into trouble. The reason is that nominative case is the default case marking in Swedish, if clause structure gives no clue:

⁹If we subscribe to abstract case, which LFG does not do anyway, it is not much help either since it is not visible.

- (33) Vem vill spela tennis? Jag!
 who wants to play tennis? I
 ‘Anyone for tennis? Me!’

The English translation indicates that languages vary in what forms they use in these contexts. The point is that we do not want to be forced to claim that *Jag* in (33) is FINITE because of nominative case.

In addition, if the pronoun indeed was in the accusative in (29), repeated below, the default interpretation is that the case of the subject is wrong, not that we are dealing with a non-finite clause. In Swedish it seems that only the infinitive form of a verb can type a clause as non-finite, so the supine form is a clear indication that it is the case marking on the subject, not finiteness that is the issue.¹⁰

- 29 Lisa sa att han/*honom gjort det.
 Lisa said that he/*him done it
 ‘Lisa said that he has/had done it.’

However, the solution to the problem is related to the subject. In Swedish, subjects can only occur in FINITE clauses. Since subjects, as just mentioned, do not have any morphological marking in Swedish, it’s impossible to introduce Finite as a morphological feature on them. But, as Sells also indicates (p69), subjects are structurally determined in Swedish (just as in English). In LFG, subjects in Swedish are given their function SUBJECT by means of the phrase structure rule in (34a) (Sells, 2007, 69). Since subjects can occur only in finite clauses and nowhere else in Swedish,¹¹ we can account for this

¹⁰Note that I’m not claiming that the supine form has a Finite feature. Other non-finite forms seem to function more like adjectives than verbs, or they appear with an auxiliary which type the clause. This is not relevant to the analysis and I will not discuss it further.

¹¹In contrast to other languages such as Portuguese, or even English, where, at least in some analyses, the complementizer *for* heads non-finite clauses with subjects. Swedish has no corresponding complementizer and *för* ‘for’ in (i) can only be interpreted as a preposition introducing a DP with the thematic role beneficiary as in ‘for Lisa’s sake’. This DP may in turn anaphorically control the covert subject, but is not itself the subject of ‘go’:

- i ?Vi ville för Lisa att gå i skolan.
 We wanted for Lisa to go to school

found in the lexical features of the relative complementizer *som*.¹² Since the complementizer *som* never takes a non-finite complement we can specify this as a rule in the lexical specification of *som*.

(35) *som*: (\uparrow TYPE=_CFINITE)

Since *som* is a complementizer it will be in C and (co)head the clause and as a consequence give its feature to the whole clause. LFG is a theory in which unification is of great importance. This means that as long as attributes (features) do not get different values, nothing prevents them from unifying. Unification prevents *som* to type a NON-FINITE clause as FINITE:

(36) * Lisa hittade boken som ligga under sängen.
 Lisa found the book that lie.INF under the bed
 ‘Lisa found the book that was under the bed.’

Since there is neither a subject nor a finite verb in the relative clause in (36), but a non-finite verb, the clause must be typed as NON-FINITE, and that value clashes, i.e. can’t unify, with the FINITE value that is introduced by *som*, and the sentence is ill formed, as predicted.¹³

A complicating factor in connection to the complementizer *som*, is that it is optional, as the English relative complementizer *that*. The derivation that gives the TYPE the value FINITE is part of the lexical item and if that is missing from the c-structure there is no element that introduces the value FINITE. Compare this to the PS-rule for subjects, if there is no subject, there is no value for FINITE. The question is if an absent complementizer coincides with a gapped subject, and we end up with a clause that should be typed FINITE, but lacks all such features. However, *som* and *that* have the same distribution and both are optional in all but one case. The complementizer is optional in (37a) and (37b), in which the gap is an object and an object of preposition, respectively. In both these cases FINITE comes from the overt

¹²*Som* is the only complementizer that selects for a FINITE clause with a possible subject gap. Other complementizers select FINITE clauses but crucially these clauses cannot have subject gaps, as far as I’m aware.

¹³The reason finite *ha* can be deleted has to do with its relation to the supine form. This is discussed in section 6.5.

subject ‘Kalle’ (see section 6.2). Crucially, there is one context where the relative complementizer is obligatory in Swedish and this is when the subject is gapped, (37c).

- (37) a. Lisa hittade boken (som) Kalle (hade) gömt.
 Lisa found the book (that) Kalle (had) hidden
 ‘Lisa found the book that Kalle had hidden.’
- b. Lisa hittade boken (som) Kalle (hade) skrivit i.
 Lisa found the book (that) Kalle (had) written in
 ‘Lisa found the book that Kalle had written in.’
- c. Lisa hittade boken *(som) (hade) legat under sängen.
 Lisa found the book *(that) (had) lain under the bed
 ‘Lisa found the book that had been under the bed.’

Since *som* and the subject cannot be absent at the same time, there is no context where the embedded clause fails to be typed FINITE.

6.4 Non-finite clauses

Sells’s treatment of tense as a morphological marker of Finite raises a question about verb strings with more than one verb. The architecture of the syntactic theory forces us to pick one single verb as the one that will mark the clause as FINITE or NON-FINITE. In the normal case, i.e. when there is no *ha*-deletion, there is just one finite verb. If this is an auxiliary, the main verb and any other verbs will be in non-finite forms. The discussion above about unification stressed the fact that feature values must not clash. This is why only one verb can contribute its feature to the whole clause. This is always the first, or hierarchically highest verb. If this verb has a finite form, it will type the clause as FINITE and the following verbs, which must be non-finite, will not matter or there will be no unification (see Sadler and Spencer, 2001, for discussion). If the first verb is in a non-finite form it will type the clause as NON-FINITE (following verbs will be non-finite, too). As mentioned earlier, non-finite *ha* can be deleted, too:

- (38) a. Lisa skulle (ha) läst boken.
 Lisa should (have) read the book
 ‘Lisa should have read the book.’
- b. Lisa måste (ha) läst boken.
 Lisa must (have) read the book
 ‘Lisa must have read the book.’

What is perhaps surprising is that in certain clauses, non-finite *ha* cannot be omitted:

- (39) a. Lisa lovade att *(ha) läst boken innan måndag.
 Lisa promised to *(have) read the book by Monday
 ‘Lisa promised to have read the book by Monday.’
- b. Lisa försökte att *(ha) läst boken innan måndag.
 Lisa tried to *(have) read the book by Monday
 ‘Lisa tried to have read the book by Monday.’
- c. Lisa planerar att *(ha) läst boken innan måndag.
 Lisa plans to *(have) read the book by Monday
 ‘Lisa is planning to have read the book by Monday.’

The difference between the clauses with *ha* in (39) and the ones where omitted *ha* is allowed is that the clauses in (39) are NON-FINITE. The only thing that can provide the NON-FINITE value is non-finite *ha*. In (38) the clauses are typed by the finite auxiliary, and *ha* can be omitted. This indicates that the function of *ha* in perfect aspect is to provide the value of clause type, and if some other element can do that, *ha* can be omitted. This claim obviously raises questions concerning the perfect tense in Swedish.

6.5 The perfect tense/aspect

The fact that *ha* is the only finite verb that can be deleted in Swedish is not a coincidence.¹⁴ Together with the supine form it forms a compound tense. This is in itself nothing out of the ordinary. This is how the perfect is formed in many languages. In this section I show that in Swedish, the perfect tense is

¹⁴Under ellipsis all verbs can be deleted, but that is not the issue here.

slightly less “compounded” than in for example English, Latin and German (Börjars et al., 1997; Ackerman and Webelhuth, 1998; Sadler and Spencer, 2001). As will be evident, this gives an account of why *ha* is the only verb undergoing deletion.

Falk (2003) gives an analysis of the English perfect tense where ‘have’ provides values for both the tense and the aspect attributes. The reason is that the past participle in English does not, as Bresnan (1982) shows, unambiguously code for perfect aspect. On Falk’s analysis, ‘have’ has the lexical entry in (40).

- (40) *have* (↑TENSE=PRES)
 (↑ASP=PERF)

The sentence in (41a) gets the f-structure in (41b).

- (41)
- a. The children have eaten ice-cream
- b.
$$\left[\begin{array}{ll} \text{SUBJ} & \left[\text{PRED} \text{ “children”} \right] \\ \text{TENSE} & \text{PRES} \\ \text{ASPEKT} & \text{PERF} \\ \text{PRED} & \text{‘eat}\langle(\uparrow\text{SUBJ}),(\uparrow\text{OBJ})\rangle\text{’} \\ \text{OBJ} & \left[\text{PRED} \text{ ice-cream} \right] \end{array} \right]$$

However, in Swedish the perfect tense is slightly different. First, there is a separate verb form, the supine, which is used only together with ‘have’ in the perfect, (42a). In other contexts the past participle is used. The participle is like an adjective in that it shows concord with the noun it modifies, (42b). Depending on if we look at ‘the team’ in (42c) as a singular neuter noun, or as a collective plural, we get different agreement on the participle, *följt* and *följda* respectively.

- (42) a. Han har följt Zlatan hela hans karriär.
 he has followed Zlatan whole his career
 ‘He has followed Zlatan, his whole career.’

- b. Här kommer Zlatan, följd av resten av laget.
 here comes Zlatan followed by the rest of the team
 ‘Here comes Zlatan, followed by the rest of the team.’
- c. Här kommer laget, följt/följda av tränarna.
 here comes the team followed-NEUT/PLUR by the coaches
 ‘Here comes the team, followed by the coaches.’

Bresnan (1982) shows that English past participles can get a present tense reading and this is also the case in Swedish. The perfect tense gets a perfective reading, for natural reasons, but the participles in (42b) and (42c), get a present tense reading. They can be paraphrased by ‘the team/Zlatan who is followed ...’, not ‘were followed’.

Another difference between the two forms is that the supine form is active and can be passivized, (43b), whereas the past participle is passive and cannot be passivized further (43d).

- (43) a. Lisa har lagat bilen.
 Lisa has repaired the car
 ‘Lisa has repaired the car.’
- b. Bilen har lagat-s.
 the car has repaired-PASS
 ‘The car has been repaired.’
- c. Bilen är lagad.
 the car is repaired
 ‘The car is repaired.’
- d. * Bilen är lagad-s.
 the car is repaired-PASS
 ‘The car has been repaired.’

Since *ha* and the supine more or less always go together, it is difficult to say what part contains the perfect aspect. One indication is, of course, *ha*-deletion, which gets the perfective reading without ‘have’. But there is one further context where we find the supine without ‘have’. In some dialects it is possible to use the supine with the verb *få* ‘get’. In those contexts the interpretation is also perfective:

- (44) a. Jag fick fyllt flaskan.
I got filled_{sup} the bottle
'I got the bottle filled.'
- b. Jag fick flaskan fylld.
I got the bottle filled_{pst.prt}
'I got the bottle filled.'

Also, in cases where the VP is fronted the verb is in the supine form:

- (45) a. Läst boken har han gjort.
read the book has he done
'Read the book he has.'
- b. *Läsa boken har han gjort.
read the book has he done
'Read the book he has.'

Contrast this with (46) (Falk's (2003) example (17)).

- (46) a. Take linguistics they have!
b. *Taken linguistics they have!

In contrast to English, it seems that the perfective aspect can be tied to the supine form of the verb, and not the auxiliary 'have'. In fact, the supine form is a clear predictor of *ha*. The supine form is never present without *ha*, barring *ha*-deletion and dialectal use with *få* 'get'. *Ha* may on the other hand function as a main verb and in some other contexts without the supine form and without a perfect interpretation. The sole function of *ha* is thus to provide tense, or lack of tense to the compound perfect tense. The supine form is devoid of tense features and is neither finite nor non-finite. As a consequence the supine form cannot type a clause as neither FINITE nor NON-FINITE. As mentioned, one function of tense in Swedish is to be the morphological marker of Finite, which in turn types a clause as FINITE. Thus, one important function of *ha* in the perfect tense is to type a clause. In those cases *ha* and the supine are the only verbs in a clause and *ha* is finite it will type the clause as FINITE, and if *ha* is non-finite it will type the clause as NON-FINITE. If there are more auxiliaries in the clause *ha* will not type the clause. In all the contexts where

ha, finite or non-finite, can be omitted the clause has the possibility to get its Finite/FINITE value from something else. *Ha* cannot be omitted when it is the only marker of type or when it occupies the V2 position.

If the only function of *ha* is to provide tense, we can assume that *ha* has very little semantic content, if any at all. However, it cannot be “lack of meaning” that makes it possible to omit *ha* since the copula *vara* ‘be’ which is equally devoid of meaning can be deleted only in certain non-finite contexts, never when it is finite. One such possible context is given in (47a). It is important that the predicate is an adjective, *vara* cannot be deleted when the predicate is a predicative noun, as in (47b).

- (47) a. Styrelsen ansåg honom (vara) ansvarig för
 the board considered him (be) responsible for
 problemen.
 the problems
 ‘The board considered him responsible for the problems.’
- b. Styrelsen ansåg honom *(vara) orsaken till
 the board considered him *(be) the cause of
 problemen.
 the problems
 ‘The board considered him the cause of the problems.’

In contrast to the perfect tense, there is no reason to assume that the copula and an adjective should form the same kind of compound predicate as *ha* and the supine. There is nothing predictable in the relation between the copula and an adjective. Both can occur without the other with intact copular or predicative semantics. Contrast this with the supine form. The supine must occur with the auxiliary *ha* and the auxiliary (but not its tense) is completely predictable from the supine form. The structure of Swedish finite *har* would tentatively look something like (48), and non-finite *ha* as in (49).¹⁵

- (48) *har* PRED=‘have’
 TENSE = PRESENT
 Finite = +

¹⁵Whether TENSE should be included or not, in (49) is not relevant to the analysis.

- (49) *ha* PRED='have'
 TENSE = -
 Finite = -

7 Conclusion

This paper investigated the relation between so called *ha*-deletion and various notions of finiteness in Swedish. The conclusion is that *ha* cannot be deleted in all contexts where it is the only provider of a value for the clause type attribute, or in V2 position. The analysis presented also supports Sells's conclusion that there are different kinds of finiteness. In Swedish there are several ways that this feature can be realized. In fact some FINITE clauses get their FINITE value from no less than three different elements, the PS-rule that introduce the subject, the complementizer *som*, and a finite verb. In a framework that makes use of unification this unproblematic. Given the redundancy we find in language it is not surprising that there are several different ways to type a clause as FINITE. Also, the perfect aspect in Swedish is key to understanding why *ha* is the only (finite) auxiliary that can be omitted. Exactly how the auxiliary *ha* and the supine form of the lexical verb combine to form the compound perfect tense needs further investigation. Another issue is how the modal adverb *kanske* interacts with V2 and the various types of finiteness that Sells (2007) discusses.

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