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Swedish -s-passives & Object Shift: reference in the syntax

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1. Introduction

The purpose of this paper is to explore and expand upon Marit Julien's (2007) analysis of the Scandinavian -*s*-passive and its empirical consequences for Swedish syntax. Her analysis is novel in that it posits that the -*s*-passive is not a true marker of passive voice, but a weak pronominal element that can sometimes receive a passive interpretation, expanding upon observations made by Hedlund (1992). I argue that -*s* is neither a clitic nor incorporated with V: it simply happens to appear in the correct distribution to be interpreted as a bound morpheme.

I will then link Julien's (2007) analysis of the -*s* passive to the larger issue of Object Shift (henceforth OS) in Scandinavian. I'll argue that the distribution of -*s* is not anomalous for a verb argument, and furthermore that it provides key clues to the underlying nature of OS, a topic on which there has been little consensus over several decades of research. It is currently debated in the literature whether it is possible for OS to be a syntactic process. I argue that discourse syntax underlies key properties of OS, and that certain verb arguments' exemption from OS is predicted by their lack of discourse features. I conclude that these discourse features seem to be linked to a reference-carrying element in nominals.

The -*s*-passive is used in conjunction with OS throughout the entire North Germanic language family. In this paper, however, I am mainly concerned with the case of Swedish. Swedish is unique among the North Germanic languages in that the -*s*-passive is used relatively freely with all verb classes and inflections, as well as more commonly used in all speech styles (Laanemets 2013).

Additionally, the fine-grained characteristics of OS differ across the North Germanic language family. Swedish is apparently the language in which there are the most possible positions for shifted pronouns, both among the adverb field and in some cases to the left of the

subject (Hellan & Platzack 1999). Nonetheless, I believe the generalizations presented here about the displacement of nominals can be relevant for all cases of Scandinavian OS. The scope of this paper's explanatory aims, however, is strictly limited to Swedish.

In section 2, I will present the general properties of the verbal suffix *-s* and outline its main semantic functions. Section 3 will provide theoretical background on the framework this paper seeks to work within. Section 4 seeks to explain the distribution of *-s* in Swedish clausal syntax. And section 5, the brunt of this paper, will bring *-s* into the much larger topic of object displacement. I will outline the properties of OS and work towards a system where deriving the behavior of *-s* and other nominals is guided by the same principles.

2. The properties of the verbal suffix -s

The North Germanic languages have two constructions giving passive meaning: the periphrastic passive and the 'morphological' *-s*-passive. In the following examples, which will be from Swedish unless otherwise noted, (1) is a normal declarative, (2) is a periphrastic passive formed using an auxiliary and the past participle form of the verb, and (3) is an *-s*-passive formed by adding *-s* to the end of the finite verb:

(1) *Ditt smink överraska-de mig.*
Your makeup surprise-PAST me
'Your makeup surprised me.'

(2) *Jag blev överraska-d (av ditt smink).*
I became.PAST surprise-PTC by your makeup
'I was surprised (by your makeup.)'

(3) *Jag överraska-de-s (av ditt smink).*
I surprise-PAST-s by your makeup
'I was surprised (by your makeup.)'

At first glance, both appear to be realizations of clausal voice, since the agent of the clause is demoted to an optional adjunct. However, in this section we will see, following Julien (2007), that *-s* exhibits behavior as if it were a non-specific argument of the verb.

2.1. Distribution

The periphrastic passive's auxiliary verb, *bli*, has basically the same distribution as the English passive auxiliary. It must appear after modals and the perfective auxiliary:

(4) *Jag borde ha bliv-it överraska-d (av ditt smink).*
I should have become-PERF surprise-PTC by your makeup
'I should have been surprised (by your makeup).'

In contrast, the suffix *-s* appears without an associated auxiliary, appearing after the tense or aspect inflection on the main verb:

(5) *Nyckeln kan ha hitta-t-s (av Kalle).*
key.DEF can have find-PERF-*s* by Kalle
The key may have been found (by Kalle).

The verb with *-s* can be preceded by auxiliaries, the first of which is inflected for tense. The *-s* will never appear on an auxiliary, but when the *-s*-verb is tensed, the suffix appears outside of tense morpheme as in (3). Furthermore, in Icelandic, which unlike Swedish has verb-subject agreement, the related voice-affecting suffix *-st*[1] appears outside of the finite verb's agreement. Here we see Icelandic *-st* forming a passive:

[1] As Anderson (1990) notes, *-st* is usually seen as a middle-forming suffix in Icelandic. Svenonius (2006), a revision of the paper example (6) was taken from, glosses *-st* as a middle morpheme, even in cases where it forms passives. It seems clear that the Icelandic suffix behaves more differently than Julien (2007) describes, although they are of the same diachronic origin. However, for this paper I will assume that Julien is empirically correct in grouping Icelandic *-st* with the Mainland Scandinavian *-s(t)* passives. As we will see, Swedish *-s* varies wildly in its interpretation, so its Icelandic counterpart need not be one-to-one for the proposals in this paper to hold. And as we will see, there are some *-s*-middles in Swedish.

(6) *María kastað-i-st út úr bílnum.* (Svenonius 2005a:6)[2]
María throw.PAST-3SG-*st* out out.of the.car
'María got thrown from the car.' Icelandic

Julien (2007:226) argues that this overall distribution "forces the conclusion that *-s(t)* does not represent a head in the verbal projection line". We will now look at additional evidence for this: the highly variant semantic interpretations of *-s*.

2.2. Interpretations as a verb argument

We see limitations on which construction is used from the perspective of control theory, as noted by (Julien 2007). Some main verbs in Swedish take infinitivals as compliments, without the usual infinitive marker. Both the infinitival periphrastic passive (7) and *-s*-passive (8) could be taken as compliments to the control verb *försöka* 'try', but (8) is a very strange sentence of Swedish[3]:

(7) *Representanten försök-te bli om-val-d* (Engdahl 1999:7)
Representative-DEF try-PAST become re-elect-PCT
'The representative tried to get re-elected'

(8) *??Representanten försök-te om-välja-s* (Engdahl 1999:7)
Representative-DEF try-PAST re-elect-*s*
?'The representative tried people to elect him'

Julien (2007) explains that the infelicity of (8) is caused by the semantics of *-s*. The interpretation involves a non-specific subject for the verb *omvälja*, which furthermore is not a *PRO* that an argument of the matrix clause can control. That *-s* can get a subject interpretation in situations like this was originally suggested by Hedlund (1992). This analysis can be extended to

[2] I have modified Svenonius' gloss of (6) to show the position of the agreement morpheme, based on the glosses given in Anderson (1990).
[3] One informant noted that there was no contrast for the pair (7-8). I have confirmed with other native speakers that there is a distinction to be drawn and that (8) is infelicitous. This hints at possible dialect differences in what extent *-s* has grammaticalized in Swedish, much like the usage differences we see in the different Scandinavian languages.

examples (3), (5), and (6), where *-s* can be seen as a non-specific agent. As we will see, *-s* has some *PRO*-like characteristics but clearly it does not behave exactly like *PRO*. Thus, the embedded clause in (8) gets a non-specific subject interpretation instead of a passive one.

It's not just two-place predicates that can be made passive with *-s*. In the Swedish sentence (9) we see that the one-place predicate *dansa* 'dance' can take *-s*:

(9) *Det dansa-s ofta där*. (based on a Norwegian[4] example from Julien 2007: 227)
EXPL dance-PRES.*S* often there
'People often dance there' / 'There is often dancing there.'

The interpretation again seems to require a non-specific agent. This construction can be used productively with almost any one-place predicate. A caveat with passivizing one-place predicates is that this *-s* is usually necessarily [+human] as noted in *Svenska Akademiens Grammatik* (henceforth SAG). Interestingly, for sentences like (9) we can substitute the 3rd person indefinite pronoun as the subject (also necessarily [+human]) and get nearly the same meaning in the active voice:

(10) *Man dansa-r ofta där.*
3SG.INDEF.NOM dance-PRES often there
'You (impersonal) often dance there.' / 'One often dances there.'

This raises the question of why *-s* does not share the morphosyntactic distribution of typical pronouns like *man*, if the constructions in (9) and (10) are indeed so similar. Note that the semantics of *-s* and *man* are not exactly the same: *man* gets its generalized meaning from its indefiniteness, whereas it seems that *-s* is completely without reference. In section 5 we will investigate the idea that such a difference can have an effect on the distribution of nominals.

[4] Sentences like (9) are possible with a periphrastic passive in Norwegian, one of many fine-grained usage differences between languages.

Other examples make it clear that *-s* has little to do with passive voice. *-s* sometimes results in reciprocal interpretations instead of passive ones. Examples (10) and (11) can receive the same interpretation:

(11) *De kyss-te-s.*
They kiss-PAST-*s*
'They kissed each other.'

(12) *De kysste varandra.*
They kiss-PAST each.other
'They kissed each other'

It may appear on first glance that there actually is an effect on clausal voice here, i.e. reciprocal voice. Julien (2007:227) suggests a more uniform alternative to this analysis: in (10), instead of being a non-specific subject, *-s* is base-generated as a non-specific object. Its interpretation as a reciprocal object such as *each other* is determined by a scope relation with the subject, which c-commands it.

Note, however, that *-s* as a non-specific object does not always take its reference from the subject[5]:

(13) *Hund-en bit-s* (Julien 2007:228)
Dog-DEF bite-*s*
'The dog bites (people).'

This is not reciprocal or reflexive as would be predicted by Julien's (2007) analysis of (11). If *-s* always behaved like PRO in absorbing its reference from a c-commander, we could not have *-s*-passives where the agent is a different entity than the subject. Julien suggests that this interpretation is avoided since *-s* is specified as [+human], though clearly, *-s* cannot be [+human] in every instance of its usage. I will simply note that there may be more than one type of *-s*; it is not in the scope of this paper to make a more fine-grained distinction here.

[5] Interestingly, (13), with its non-specific human object, is not possible in Danish or Norwegian.

Svenska Akademiens grammatik (SAG) is the current, authoritative traditional grammar of Swedish. It contains an extensive list of the various non-passive uses of *-s*. SAG groups these verbs under the umbrella term *deponensverb* 'deponent verbs', and notes that grouping them by semantic patterns may be impossible. But Julien (2007) predicts the verbs can be analyzed as having non-specific arguments. In (12), we see that *-s* sometimes appears on "inchoative[6]" verbs; in (13) and (14), *-s* appears on psych verbs:

(14) *Han har åldra-t-s.* (based on a Norwegian example from Julien 2007: 227)
he has age-PERF-*s*
'He has aged.'

(15) *Kalle vånda-s inför tenta-n.* (Hedlund 1992: 140)
Kalle dread-*s* before exam-DEF
'Kalle dreads the exam.'

(16) *Jag skäm-s.*
I shame-*s*
'I am ashamed.'

Julien (2007:228) argues that this phenomenon strengthens the case for *-s* being an argument:

> "For the inchoative verbs, it is possible that *-s(t)* represents an unspecified causer, which must be present for the verb to be inchoative. Concerning psych verbs they are known to have a rather complicated syntax […] Sometimes nominal elements show up whose function is rather unclear."

So, from this perspective, there is an item *-s*, generated in an argument position, which creates a multitude of different interpretations due to its non-specificity. Clearly, a treatment of *-s* as a passive or otherwise voice-related head does not correctly account for the data we have seen.

[6] Here I assume that Julien follows the *Routledge Dictionary of Language and Linguistics* definition of 'inchoative': "[Inchoatives] indicate the inception or coming into existence of a state or process, e.g. *to bloom, to wilt*." I do not use it synonymously with "ingressive, which denotes the sudden beginning of an action: *to burst into flames*."

2.3. A deeper look at the semantics of -s

Before moving on to more theoretical matters, we must attend to some grittier details about when *-s* is used. As mentioned in the introduction, Swedish is the only Mainland Scandinavian language with a complete paradigm for *-s* across all tenses (Norwegian and Danish restrict its use in past to certain verb classes[7]), and is the language in which usage of the *-s*-passive is most common (Laanemets 2013). In Swedish, the constructions are interchangeable in many contexts, although usually with small differences in interpretation[8]. However, while basically interchangeable on many verbs, some verbs seem to display a preference for one or the other passive. Specifically, verbs demoting an experiencer or recipient role tend to use the *-s* form (Engdahl 1999):

(17) *Klockorna hörs vida omkring.* (Engdahl 1999:6)
bells.DEF hear.*s* widely
'The bells can be heard from far away.'

Hörs is a verb with a very strong preference for the *-s*-passive. Others appear to vary freely between the periphrastic and *-s*-passives without noticeable changes in meaning. Some verbs

[7] In Laanemets (2013: 70), the distributional differences of Danish, Swedish, and Norwegian are laid out: Danish and Norwegian forbid *-s* on strong verbs as well as verbs inflected for perfective aspect. Furthermore, Norwegian forbids it for a certain declination of weak verbs in the past tense.

[8] See Engdahl (1999) for a general overview of the attested differences between the periphrastic and *-s* passives. Firstly, there seems to be a distinction to be made regarding mood: the *-s* passive is typically used when describing generic events or when giving general instructions, while the periphrastic passive is usually anchored in reference to an actual event (Engdahl 1999:5). With regard to aspect, *-s* tends to be used for stative interpretations and the periphrastic passive for dynamic interpretations, although verbs that have a specific aspectual meaning can often override this (Engdahl 1999:6). It's possible in my view that both of these effects could follow from the non-specific nature of *-s*. Example (13), for instance, is purely stative, describing a general quality of the dog. But if *-s* is replaced by some other (referential) argument, it can refer to an actual event. Overall, however, Engdahl notes that aspect differences with *-s* depend more on the semantics of verb and the context of the event.

avoid the *-s*-passive in certain tenses reasons of phonetic ambiguity, for example when the past tense of strong verbs already ends with /s/ (SAG).

There are also some comments that need to be made about the types of verbs that take *-s*. Julien's (2007) analysis as outlined in section 2.1 predicts that all verbs with *-s* will break down into one of several categories:

(18) a. passivized: see (3, 5, 6, 8, 9) above

b. reciprocal/reflexive: see (11), also *träffas* 'meet', *mötas* 'meet', *pussas* 'kiss', *kramas* 'hug/cuddle', *slåss* 'fight', *brottas* 'wrestle', *umgås* 'socialize', *turas om* 'take turns' (SAG)

c. generic object: see (13), also *bränna*s 'burn (people)', *luras* 'trick someone', *stickas* 'stick/sting (people)' (SAG)

d. inchoative(?): see (14), also *ärgas* 'verdigris (the weathering of copper)', *kristalliseras* 'crystallize', *mattas* 'wane (e.g. for emotions)' (SAG)

e. psych: see (15-16), also *trivas* 'be acclimated, satisfied', *blygas* 'be ashamed of, blush', *demoraliseras* 'demoralize', *förargas* 'get angry', *glädjas* 'be delighted', *äcklas* 'be disgusted', *kännas* 'feel', *hoppas*[9] 'hope', *förvånas* 'be surprised', *idas* 'have enough energy', *minnas* 'remember' (SAG)

There are some issues with this categorization. We can largely do away with the finer distinctions. Firstly, there's no clear place in (18) for a fairly large group of *-s*-verbs that aren't quite traditional psych verbs: bodily processes and behaviors (19).

(19) *andas* 'breathe', *kräkas* 'vomit', *svettas* 'sweat', *läkas* 'heal', *kvävas* 'suffocate', *kittlas* 'tickle', *djävlas* 'make hell, be irritating to someone', *låtsas* 'pretend', *brås* 'take after (e.g. someone's behaviors or skills)', *hämnas* 'avenge' (SAG)

[9] Engdahl (1999:9) notes compositional "blocking", i.e., blocking of *-s*-passive formation of verbs like *finna* 'find', when a separate deponent verb (such as *finns* 'exist') already exists using the same verb stem. However, another such pair is *hoppa* 'jump' and *hoppas* 'hope'. We can in fact *-s*-passivize *hoppa* and retain the compositional meaning of 'jump', as volunteered by an informant:

Nu ska det hoppas studsmatta!
Now shall EXPL jump.*s* trampoline
'Now there'll be trampoline-jumping!'

So it doesn't seem to be just psych or inchoative verbs that have "a complicated [argument] syntax" as Julien (2007:228) writes. Nor can we say that such *-s*-verbs are linked to the presence of experiencer theta-roles, as evidenced by the agentive behavior verbs in (19). Simply put, a much wider range of verbs seem to take *-s* in a lexically reflexive meaning, analogously to other semantically parallel psych/bodily process verbs such as *ångra sig* 'regret' and *snyta sig* 'blow one's nose', where the internal argument is a reflexive pronoun instead.

There are some additional verbs (20) that don't fit into the categorizations given in (18). Their common link seems to be that they take a theme as subject:

(20) *finnas* 'exist', *fattas* 'be missing', *lyckas* 'succeed', *misslyckas* 'fail', *försämras* 'worsen', *förvärras* 'worsen', *försvagas* 'weaken', *förbättras* 'improve', *förändras* 'change', *förvandlas* 'transform', *utvecklas* 'develop', *ökas* 'increase' (SAG)

Many denote processes, but aren't exactly inchoative in that they could be said to indicate the start, or inchoation, of a process. That they all take a theme subject seems to back up the claim that a roll of *-s* is as an unspecified causer. Note, however, that the range of verbs that take the unspecified causer is much wider than was suggested in our earlier characterization.

Also note that the class of *-s*-verbs in (20) that begin with the prefix *för-* are ambiguous between a middle and passive meaning (SAG):

(21) *Situationen förändrades.*
situation.DEF changed.*s*
'The situation changed.' **OR** 'The situation was changed (by someone)'

This is further evidence for the predicted ambiguity that a highly underspecified argument like *-s* might create. Several of the verbs beginning with *för-* have counterparts with a reflexive pronoun object instead of *-s* (SAG). Note however, that the reflexive variants of theme-subject verbs, such as *förändra sig* (cf. 21), mainly get the middle interpretation. This suggests *-s* is more

ambiguous in its interpretation than *sig*, since it can either absorb reference from the subject or not.

We have seen that *-s* can fulfill both an agentive and theme role, as well as either absorb the subject's referential indexation or not. So there are four logical possibilities for *-s*, all of which appear fulfilled:

(22)

	absorbs subj. reference	*does not absorb*
generated as theme	reciprocal, middle, behavior, psych(?)	non-specific obj.
generated as agent	process with unspecified causer(?), body(?)	**passive**

One questionable inclusion in (22) is whether the unspecified causer *-s* (which we had formerly grouped as inchoatives but saw fit to expand) truly absorbs subject reference. Semantically, this is questionable. However, these constructions are clearly distinct from passives since the agent cannot be explicitly set out in an adjunct. Additionally, some of these process-denoting verbs can alternate with a reflexive form, like the aforementioned *förändras/förändra sig*, and the reflexive here will display subject agreement. Also note the questionable semantic status of *-s* in the psych and bodily process verbs – Julien (2007:228) even suggests that such arguments may not be thematic at all. But the subjects of these types of verbs shy away from certain thematic roles, which I believe can be predicted somewhat by what kind of role *-s* absorbs. All in all, *-s* can be employed in a surprisingly diverse set of circumstances, though it's worth emphasizing that forming passives is its only truly productive function.

2.4. Are there '-s-passives' in other languages?

The *-s*-passive in Scandinavian developed historically from the reflexive 3rd person pronoun. Is this construction unique to Scandinavian? Apparently there are parallel cases, as noted in Julien (2007). Russian appears to have such a suffix, *-sja*, which is also historically derived from

a reflexive. Enger & Nesset (1999), in their extensive comparison of the Norwegian and Russian constructions, point out some striking parallels. Of most interest to us here is the fact that the Russian *-sja* appears outside of the tense/aspect inflections, and it appears to be able to be give verbs a passive or middle meaning, as well as other effects that are best explained by it occurring in an argument position (Julien 2007).

First, note that the Russian *-sja* appears outside of the verb's agreement markers in (23), in parallel to the Icelandic example (6). Here is a basic passive formed with *-sja*:

(23) *Takie knigi čitajutsja širokimi massami.* Russian
Such:NOM.PL book:NOM.PL read:3.SG.*sja* broad:INST.PL mass:INST.PL
'Such books are read by the broad masses.' (Enger & Nesset 1999:37)

Julien (2007 233) points out that this construction is exactly parallel to Swedish in that it can encode a non-specific human object. We find this not only in Russian (24), but in other Balto-Slavic languages as well, here exemplified by the Belarusian reflexive *-cca* (25), and the Lithuanian *-si-* (26):

(24) *Sobaka kusa-et-sja.* (Enger & Nesset 1999:37)
Dog bite-PRES.3SG-*sja*
'The dog bites (people).' Russian

(25) *Kot dzjare-cca* (Geniušienė 1987:249)
Cat scratches-*cca*
'The cat scratches.' Belarusian

(26) *Katė braižo-si.* (Geniušienė 1987:21)
Cat scratches-*si*
'The cat scratches.' Lithuanian

(27) =13 *Hund-en bit-s.* (Julien 2007:228)
Dog-DEF bite-*s*
'The dog bites (people).' Swedish

It's clear that (24-26) are not voice-related, though Geniušienė (1987) notes that the Baltic reflexive constructions have often been considered middles. Here it looks like a defective object instead, as per Julien's (2007) analysis.

Lithuanian *-si-* seems to have a different distribution to Swedish *-s*, however. Similarly to the voice-affecting reflexive clitics in Romance, *-si-* occupies a position in the clause independent of the main verb, which it can appear before or after (Geniušienė 1987). On the other hand, the Latvian reflexive (homophonous with Swedish *-s*!) always appears verb-finally, and like the Lithuanian *-si-*, shares some interpretational properties with Swedish (Geniušienė 1987).

Julien (2007) mentions one other case of a passive-like construction being analyzed with argument properties: that of Irish. This construction is also parallel with the facts of Swedish in that the passive agreement paradigm also occurs outside of the tense inflection and has similar effects on control theory. I will not go into the case of Irish here, but see Noonan (1994).

These examples show that this type of construction is not idiosyncratic to the North Germanic languages, and can arise naturally in parallel circumstances through what is presumably a process of grammaticalization. Reflexives can remain in an argument position – be it as a clitic, or fused to the main verb – to partake in constructions that mimic those of clausal voice.

3. Some theoretical background

In this section I will outline the framework in which we will investigate the syntax of *-s*. Issues which are raised by the *-s*-passive include the general principles of word formation as well as the distribution and behavior of voice morphemes. I will begin by overviewing Julien's (2002, 2007) proposed framework.

3.1. Strict right-branching

Julien's stance is a more explicit version of the strictly antisymmetrical framework proposed by Kayne (1994). In Kayne's framework, all languages are right-branching – that is, the base-

generated order of specifier-head-compliment is universal, and all other orders are derived by leftward movements from these positions. In addition, adjunction is always to the left in this model. Since head movement is presumed to be a form of adjunction, 'lower' functional heads will always be closer to the root in the case of roll-up head-movement. Linearization processes follow the Linear Correspondence Axiom (LCA) – linearization, though a phonetic process, is essentially determined solely by the syntax, as there are no symmetries for it to resolve.

This is crucial to our analysis of *-s* since, as in Travis (2000) and many others, voice is observed to be below the tense and aspect heads in the functional hierarchy. For this to be true, we would need to show that attested cases of passive morphology outside of the strict ordering V-voice-aspect-tense (or its opposite) are not actually passives at all (or that they are not derived strictly through head movement). This prediction about morpheme order is borne out by a typological survey of 530 languages that is the basis of Julien (2002), and this is what Julien (2007) sets out to explain in her analysis of the Scandinavian verbal suffix *-s*, an apparent exception to this strict ordering rule.

If *-s* is a verb argument, which it indeed appears to be, we don't expect it in the verbal projection line. But why, then, does it consistently fuse onto the verb?

3.2. Words as syntactic epiphenomena

Julien (2002, 2007) takes Kayne's (1994) model and makes it explicit with regards to word formation. Words are not lexical items in this model of syntax – instead, they arise perceptually due to the context of their distribution. A head-raising complex, such a verb with tense or aspect inflection, is perceived as a word since nothing can ever intervene between the adjoined heads. Words need not form through head movement; there are other configurations from which polymorphemic words can arise, as long as they appear in consistent distribution.

Perhaps Julien's (2007:210) claim that words "are not grammatical entities" is too strong. For one, there are clearly phonological processes that appear to operate at word boundaries. However, taking into account our data on the Scandinavian *-s* passive, her assertion certainly seems like a correct statement as far as the syntax is concerned. The suggestion that words are not only formed through head movement allows us to posit that *-s* can remain in an argument position and still be perceived as a bound morpheme. So to demonstrate the word properties of Swedish *-s* passives, we need only show that no phonetic content would ever intervene between this hypothesized argument position and the inflected verb itself.

3.3. Summary

Here I adopt Kayne's strict antisymmetry and Julien's ideas about word formation, constraints which appear to have some empirical weight behind them (see Julien 2002). In sections 4 and 5, I will attempt to derive the distribution of *-s* under these syntactic conditions, and then in relation to the behavior of other verb arguments. There are two main problems we need to address if we are to use this framework. First, we must explain the distribution of the argument *-s* so that it consistently appears to the right of the main verb, thus allowing it to be perceived as verb morphology. And secondly, we must explain what differentiates *-s* from essentially all other verb arguments in Swedish, since its distribution would appear to be unique.

4. Placing -s in the clause

We will now take a closer look at how our analysis of the Swedish verb suffix *-s* affects derivations of Swedish sentences. First, we will overview how Swedish clause structure is typically analyzed, and the problems this poses for assuring that *-s* is consistently in a position where it can form a word with the verb. Then I will discuss the side-effects of our analysis,

which will eliminate head movement. I will adopt a remnant movement view of the verb-second phenomenon (henceforth V2) similar to Julien's (2007), but with some modifications. It will be argued that *-s* does not raise to the functional structure as would be expected if it was a Romance-style clitic (Cardinaletti & Starke 1999). Instead, *-s* appears to stay in situ in a moved vP, as does its host V.

4.1. Some background on the syntax of Swedish verbs

Swedish is a V2 language, and such languages are traditionally described as having V-to-C head movement. Perhaps the feature strength of the null complementizer is the motivator for movement here, as in Adger (2003:330), since we see a distinct alternation between the locations of the finite verb in matrix versus embedded clauses. Note the position of the verb in relation to the negation in (28) and (29):

(28) *Du ville inte åka hem.*
You want.PAST not go.INF home
'You didn't want to go home.'

(29) *Jag tro-dde att du inte ville åka hem.*
I believe-PAST that you not want.PAST go.INF home
'I thought that you didn't want to go home.

If the matrix verb is in C in (28) and (29), the subject is in some high topic position, which for now we will call the specifier of CP. In 'Cartographic' proposals taking into account the finer CP structure put forward by Rizzi (1997), V2 is sometimes attributed to a property of FinP, due to the link with finite verbs, but newer accounts of the link between assertive predicates and embedded V2 pin the phenomenon to ForceP (Bentzen et al. 2007). Such fine-grained prodding at CP won't play a role in this paper, although later we will see evidence from Swedish that Rizzi

and company appear correct in breaking down the functional structure of the clause in this manner.

When the subject happens not to be topicalized, it appears in a lower position to the right of V2, i.e. Spec,TP, as in (30):

(30) *Hem ville du inte åka.*
Home want.PAST you not go.INF
'You didn't want to go HOME.'

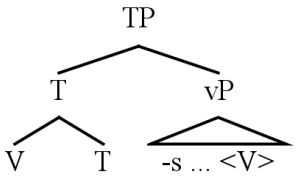
We also assume the subject to be in this lower position in (19), since topicalization does not occur in embedded clauses, excepting a few predicate types[10].

Importantly, Julien's (2007) assertion that the verbal suffix *-s* is an argument is incompatible with a V-to-C movement model, since it always appears on the verb. This does not rule out that the distribution of *-s* is a PF phenomenon, but in section 5 we will see that the distribution of nominals interacts with phrasal movement to V2 in a way that can only be viewed as syntactic.

4.2. Phrasal movement to V2

Julien's (2007) alternative to Swedish V-movement is XP-movement. V must move to T to acquire the tense morpheme, since for Julien there is no non-local Agree. So for Julien, TP is the lowest constituent containing the Swedish verb's complete morphology, outlined below in (31):

(31) (Julien 2007:229)



[10] Embedded V2 word order can indeed occur in some limited circumstances, especially in the clausal complements of verbs such as 'say'. For an extensive discussion on the relation between force and V2, see Brandtler (2008), Petersson (2009), Bentzen et al. (2007), Wiklund (2009a), Julien (2009) and Wiklund (2009b).

So TP must be subject to phrasal movement to ensure that the verbal word stays in one piece in V2 constructions. This would be an instance of so-called remnant movement, where an XP must somehow be evacuated of all other content before it moves.

XP-movement proposals are not particularly uncommon for the Germanic languages: see, among many others, Hróarsdóttir (2000, 2008), Müller (2001), Taraldsen (2000), Haegeman (2000), and Wiklund et al. (2007). It's mostly implemented for moving the VP to V2 position and for the derivation of OV word order with the LCA. Julien is, then, a member of a growing consensus[11] that remnant movement is theoretically necessary to account for the facts of verb morphology.

There have been some criticisms of these proposals of remnant movement that have evolved from Kayne's (2004) strict antisymmetry, especially that the extensive movements necessary to form a left-branching structure are unmotivated, or that it makes previously established conditions of binding and chain formation obsolete (Abels 2007). The former point is not especially relevant to this paper, since we do not observe any left-branching in Swedish. But the latter criticism could likewise apply to head movement, since serial 'roll-up' adjunction does not play well with the notion of c-command either (Roberts 2011). Because of these problems and several others, head movement (and specifically Scandinavian V-to-C movement) has been proposed by some to be a PF process (Sigurðsson 2006). While this may be true for head movement, we will see mounting evidence in this paper that the fronted element in V2 is a phrasal constituent. This and other related derivational phenomena point to the conclusion that fronting to V2 is a syntactic process. In the following subsections we will see how a derivation of

[11] See Jayaseelan (2010) for a summary of such proposals when it comes to verb morphology, including Julien's.

remnant movement to V2 might take place, leaving the *-s* suffix in a verb argument position which is consistently to the right of the tensed verb, with no intervening phonetic material.

4.3. TP-movement or vP-movement? The case of adverbs

In stark contrast to the many remnant VP-movement proposals mentioned above, it is difficult to find instances other than Julien (2007) where TP-movement to the C domain has been proposed. One such instance is Wiland (2010), for Polish. However, Wiland's fronted TP is motivated by much more overt content than Julien's proposal for Swedish, which mostly serves to hold the verb morphology together. In this section I'll show that the TP-movement analysis makes odd predictions for Swedish. We do, however, see a few other elements that tend to stick with the verb when it moves to V2-position. Along with the presence of *-s* in the V2 constituent, these phenomena are highly suggestive of XP-movement – specifically vP-movement[12].

As noted by Julien (2007:230) and Nilsen (2003:79), a few adverbs can move with the verb to the V2 position:

(32) *Jag bara skrek åt honom.*
I just yell.PAST at him.
'I just yelled at him', i.e., 'All I did was *yell* at him'

(33) *Jag skrek bara åt honom.*
I yell.PAST just at him.
'I just yelled at him', i.e., 'All I did was *yell at him*'

There is a distinct difference in scope between (32) and (33) that can be explained in terms of c-command. XP-movement moves the verb and its focus adverb to the V2-position in (32). The focus adverb cannot hold scope over the object due to a lack of c-command. But in (33), the adverb has been left behind, and holds scope over the entire verbal event, including the object.

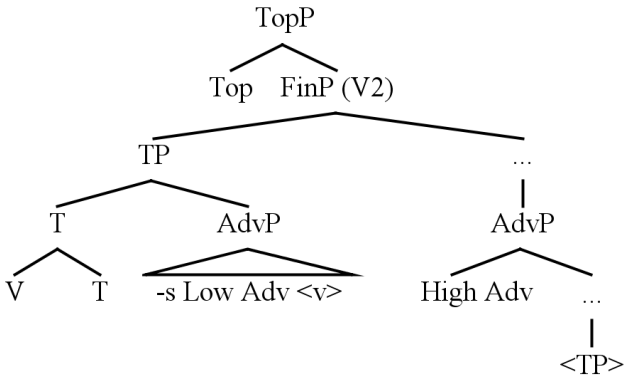
[12] Some linguists (Müller 2004, Nilsen 2003) follow a vP-movement approach to V2 where the sentential topic is determined already in the vP periphery, viewing verb-second languages instead as "vP-first".

There are a few other adverbs like *nästan* ‘almost’ that, like *bara*, can appear in a V2-violating position. Nilsen (2003) argues that since these adverbs can carry additional adverbial modifiers with them to V2, they are true V2 violations that cannot be explained as clitics on the verb. Note also that the object does not move across the adverb as expected in (32). This means that, unlike *-s*, the full DP/PP object must have been evacuated from its base position before remnant movement took place. Motivations for this will be discussed in section 5, where I will argue that some reflexives also appear in the V2 constituent.

These facts support an analysis involving remnant movement, but do they show evidence of TP-movement in particular? Julien’s (2007) TP-movement proposal would appear to rely on the idea that adverbs won’t occur anywhere below TP. Already, the pied-piping of select adverbs to V2 strongly suggest that the verb is still in vP. If V had moved to T to get tense in (32), it would be linearized left of the focus verb. And eliminating non-local Agree for tense inflection seems to be the only real theoretical motivation behind the TP-movement proposal.

Let’s test how the proposed TP-movement works with adverbs that Cinque (1999) suggests are universally below the T domain. Julien’s (2007) proposal inadvertently predicts that Cinque’s adverb hierarchy will be considerably disrupted by the regular fronting of TP, unless extreme and unmotivated evacuation of sub-TP content is to take place. Since the TP would regularly be moved to a specifier position in the C domain, we expect that the adverbs universally contained below TP would appear out of order in V2 clauses, as shown below, where low adverbs appear to the left of high adverbs:

(34)



This simply doesn't occur. If we test by using a very high mood adverb such as *ärligt talat* 'frankly', and a very low aspectual adverb such as *helt* 'completely' (Cinque 1999:106), they appear in an order that respects the adverb hierarchy:

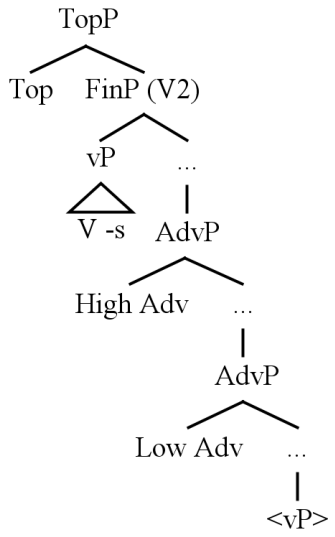
(35) *Jag förstod ärligt talat inte*[13] *föreläsning-en helt.*
I understand.PAST frankly not lecture-DEF completely
'Frankly, I didn't completely understand the lecture.'

(36) **Jag förstod helt inte (ärligt talat) föreläsning-en (ärligt talat)*
I understand.PAST completely not frankly lecture-DEF frankly

Ärligt talat, as a mood adverb, is assumed to be above TP, in the C domain (Biskup 2011). This adverb would not move with TP, and would remain in a position like the one marked 'High Adv' in (24). We must conclude that it's a much lower constituent which moves to V2. The clear candidate is vP:

[13] In this set of examples I assume that NegP is below T in Swedish, although Cinque (1999) suggests there could several NegPs interspersed throughout the clause. Either way, the distribution of negation in Swedish is not suggestive of it being contained in a fronted TP.

(37)



Here we preserve the order of most adverbs. Little v is often said to house the verb root's inflection, and thus can give the verb its temporal inflection without the verb having to leave vP.

If there exist sub-vP adverbs, they must evacuate vP. However, note that (37) essentially depicts the Swedish adverb field. In section 5, we will see that evacuated vP content tends to move to various positions in this adverb field. The analysis of Object Shift there will reinforce that phrasal movement to V2 is real. Instead of stipulating a constraint that requires remnant evacuation (such as Müller 2004's EPC, where all content except the phase edge must evacuate[14]), I'll argue that sub-vP adverbs, if any are indeed generated below vP, would have their own motivation to evacuate the vP, along the same lines as that which causes nominals to evacuate when they undergo OS.

[14] An EPC constraint would conflict with the idea that *-s* is unmoved. It, too, would have to evacuate vP, cliticize to the verb, or else find itself in the phase edge upon vP-movement to V2. As we will see in section 5, *-s* can remain unmoved.

4.4. Swedish verbs are low

Julien is, in fact, the only author I could find who places the Swedish verb in T. Usually the Swedish finite verb is assumed to have picked up its inflection from little v. Swedish literally has a textbook example (Adger 2003) of a low finite verb. In embedded clauses where V2 is blocked (38), the verb appears very low indeed if we look to adverb placement as a diagnostic:

(38) *…att jag ärligt talat inte förstod föreläsning-en helt.* (cf. 35, 28-29)
That I frankly not understand.PAST lecture-DEF completely
'…that I frankly didn't completely understand the lecture.'

We find little evidence to support Julien's claim of V-to-T movement.

vP-movement to V2 means we must abandon the tight restriction on Agree that Julien (2002, 2007) puts forward. If subject and object agreement markers are the only morphemes that aren't syntactic heads (like suggested by Chomsky 1995), we can't explain how the verb gets inflected for tense in Swedish without some sort of non-local Agree. We must assume contra Julien that other types of morphemes can appear through the valuation of a syntactic head's inflectional features.

Julien (2002:58) is correct in her assertion that a less restricted model of Agree "makes no predictions about morphological form". We need a new constraint in our theory of word formation to account for Baker's (1985b) Mirror Principle, which observes that morpheme sequences in words usually appear in the opposite order as their free counterparts. Kayne's (1994) model of head movement through left-adjunction can explain some of these cases, but not the case of Swedish as outlined above. Some mechanism is necessary for ordering inflectional morphemes correctly. Inflection can be constrained simply by ensuring that inflectional morphemes appear in the order that they are valued. Or we could say, along the lines of Brody (2000), that a given sequence of heads is spelled out by default in the lowest head's position.

This would maintain a hierarchical ordering of morphemes in the verb while allowing the verb to remain in situ.

5. The big picture: -s and Object Shift

In this section, we will examine the relationship between the behavior of *-s* and Object Shift. I argue that OS is a licensing process in the discourse structure, which in many cases causes evacuation of vP. This claim requires an evaluation of what triggers OS, traditionally described as a PF process. It will be argued that OS is contingent not on V-movement but on the inability of the V2 position to license discourse features. I will posit that OS stems from a discourse property of referential D (D_{Ref}), and show that this property can properly linearize Swedish OS in the syntax, in tandem with XP-movement to V2. I hope to provide an idea of how these processes could interact during the course of a syntactic derivation.

5.1. The facts of Object Shift

If we are going to treat *-s* as a verb argument, the most glaring question is why it has such a different distribution than other pronouns and DPs. But it's not just *-s* that raises such issues. The Scandinavian languages have an oft-debated property, OS, wherein objects get displaced from their base-generated positions in VP. Holmberg's (1986) Generalization (HG) is usually used to describe the trigger for OS: objects can't shift leftward over phonetic content from the VP. Most importantly, HG describes how OS appears contingent on the verb moving out of VP.

However, OS is more fine-grained than HG alone would suggest. It seems that all Scandinavian languages that display OS[15] have some additional restrictions on the distribution of certain types of objects. Generally, 'weak' objects (unstressed pronouns) shift farther to the left, but with varying rules for each language. For example, only weak objects may shift in Swedish (39-42). The key contrast here is between the distribution of stressed and unstressed pronouns:

(39) *Igår såg jag **den** inte.*
Yesterday see.PAST I it not
'I didn't see it yesterday.' [Weak shifted pronoun]

(40) *Igår såg jag inte **den**.*
Yesterday see.PAST I not it
'I didn't see it yesterday.' [Weak "unshifted" pronoun]

(41) **Igår såg jag **DEN** inte.*
Yesterday see.PAST I THAT not *[Strong shifted pronoun]

(42) *Igår såg jag inte **DEN**.*
Yesterday see.PAST I not THAT
'I didn't see THAT yesterday.' [Strong "unshifted" pronoun]

Stressed pronouns can only appear "unshifted", as in (42). HG fails to capture such a distinction. Josefsson (2010) surveyed several dialects of Swedish and confirmed that OS is indeed optional as in (39-40), although with highly variant idiolectal preferences among the respondents. However, OS of Danish weak pronouns is obligatory, so (40) would be illicit in Danish (Hellan & Platzack 1999).

What HG does capture is that the occurrence of OS appears contingent on verb movement, or for the analysis presented here, on vP-movement with the main verb contained within. Below we see that OS does not happen when in a non-V2 clause (43), or when an auxiliary moves to V2 instead of the main verb (44):

[15] Dalecarlian, a Mainland Scandinavian language spoken in Dalarna, Sweden, largely appears not to exhibit OS at all, so stating OS as a general property of North Germanic is not exactly correct (Hosono 2013).

(43) *…att jag inte såg* ***den.*** (cf. 39-40)
that I not see.PAST it.
'…that I didn't see it'

(44) *Igår hade jag inte sett* ***den***. (cf. 39-40)
Yesterday had I not see.PERF it
'I hadn't seen it yesterday.'

Swedish OS is also blocked by verb particles and PP objects. However, in Danish, nominals are required to undergo OS past verb particles (Andréasson 2009:2) – an HG violation! So there may be a different phenomenon at work here restricting this from happening in Swedish[16].

In Swedish, we also see that strong pronouns pattern with full DPs (45) and demonstratives (46) in that they appear "unshifted":

(45) *Igår såg jag inte* ***film-en.*** (cf. 42)
Yesterday see.PAST I not film-DEF
'I didn't see the film yesterday.'

(46) *Igår såg jag inte [$_{Dem}$* ***den där****]*. (cf. 42)
Yesterday see.PAST I not that there
'I didn't see that yesterday.'

In Icelandic, full DPs may undergo OS, and shifted objects are described by Diesing (1996) as getting definite or quantificational interpretations. So, (47) and (48) suggest that OS is linked somehow with definiteness or reference properties (Diesing 1996:79):

(47) *Hann les sjaldan lengstu* ***bókina.*** Icelandic (Diesing 1996:79)
He reads seldom the longest book
'He seldom reads the longest book (whichever it is).'

(48) *Hann les lengstu* ***bókina*** *sjaldan.* Icelandic (Diesing 1996:79)
He reads the longest book seldom
'There is a certain book which is the longest, and he seldom reads that book.'

[16] I will not investigate it in this paper, but note that even pronouns in English can appear on either side of a verb particle (Wallenberg 2008), a phenomenon which may or may not be akin to OS.

This is an idea I will explore in-depth for Swedish. Icelandic is useful for teasing apart the semantics behind OS because it allows full DPs to shift, unlike Mainland Scandinavian. Diesing (1996:79) shows that "unshifted" DPs in Icelandic get contrastive focus. This effect is predicted if the "unshifted" position is in fact a low FocP like the one suggested for Italian by Belletti (2004). It is not always true for Swedish that "unshifted" objects get contrastive focus, since there isn't any other place for strong objects to show up. But it still suggests that OS has something to do with discourse structure and that the "unshifted" position is focus-related. Note that in a vP-movement analysis, the strong "unshifted" pronouns must also be analyzed as shifted – if they had not displaced they would appear in the moved vP, with the same distribution as *-s*. In this way, the introduction of vP-movement strengthens the idea that both strong and weak objects displace, while *-s* does not.

Swedish has some quirks of its own when it comes to OS. First of all, it seems that Swedish is the only language where a mobile landing site for weak pronouns has been attested (Hellan & Platzack 1999:130):

(49) *Igår läste han **dem** ju alltså troligen inte.* (Hellan & Platzack 1999:130)
Yesterday read he them as-you-know thus probably not
'Yesterday he probably did not read them, you know.
*Igår läste han ju **dem** alltså troligen inte.*
*Igår läste han ju alltså **dem** troligen inte.*
*Igår läste han ju alltså troligen **dem** inte.*
*Igår läste han ju alltså troligen inte **dem**.*

Second, a phenomenon known as Long Object Shift (named by Josefsson 1992) is attested in Swedish. Long Object Shift is essentially a third OS position to the left of the subject. We will see in the next subsection that, while complicated, the data for Long Object Shift provides valuable clues about the nature of OS.

5.2. Long Object Shift: clues and problems

The Swedish and Icelandic phenomenon of Long Object Shift (Hellan & Platzack 1999:132) is of special interest to us, since the objects here appear to share distribution with *-s*. Objects appear to the left of the subject which is traditionally in Spec,TP (as in Josefsson 2010):

(50) *Nu [$_{vP}$ ordna-r* ***sig***]*[$_{subj}$ allting]*.
Now organize-PRES 3.REFL everything
'Everything will work out now.'

(51) *Igår [$_{vP}$ kamma-de* ***sig***] *[$_{subj}$ Erik] inte på hela dag-en.*
Yesterday comb-PAST 3.REFL Erik not on whole day-DEF
'Yesterday Eric didn't comb his hair for the whole day.'
(example from Hellan & Platzack 1999: 134, but bracketing is mine)

In the analysis I am presenting, this pronoun, like *-s*, is a part of the remnant vP in V2 position like I've bracketed above. I argue that the reflexives that appear in a Long Object Shift position have essentially the same characteristics as *-s*, discussed in section 2.3. These types of reflexives are non-specific and non-referential, appearing merely to satisfy the requirements of certain verbs which are formally transitive despite there being no real-world object. Recall the chart (22) of possible uses of *-s*. Here I repeat it, showing the uses of Long Object Shift reflexives that overlap with the functions of *-s* (striking through those interpretations which are impossible for Long Object Shift reflexives):

(52)

	absorbs subj. reference	*does not absorb*
generated as theme	~~reciprocal~~, middle, behavior, psych$^{(?)}$	~~non-specific obj.~~
generated as agent	process with unspecified causer$^{(?)}$, body$^{(?)}$	~~passive~~

So for reflexive middles, behavior verbs, psych verbs, and processes with unspecified causers are expected to have Long Object Shift objects.

However, the data here is a bit more complicated than what we've seen so far, and due to this I will suggest that not all objects left of the subject can be considered 'true' Long Object Shift

objects – i.e., that objects can appear left of the subject without being in situ in a fronted vP. Referential reflexives are attested in a Long Object Shift position, and are analyzed as Long Object Shift objects in most of the literature:

(53) *Det här lärde* ***mig*** *Maria igår.* (Josefsson 2010:3)
This here taught me Maria yesterday
'Maria taught me this yesterday.'

In (53) we see the accusative object *mig* to the left of the subject *Maria*. I will explore the possibility that this is just a normal weak pronoun that has shifted into the adverb field, and that the subject is actually in a lower-than-usual position. Note that if we change *Maria* to the pronoun *hon* 'she', Long Object Shift doesn't occur:

(54) *Det här lärde hon* ***mig*** *igår.* (cf. 53)
This here taught she me yesterday
'She taught me this yesterday.'

In fact, nearly all such examples of Long Object Shift that I can find are constructed with 'heavy' subjects. Sometimes the subjects must be extremely 'heavy' to achieve what looks like Long Object Shift:

(55) *Därför ger* ***mig*** *Tutanchamons förbannelse inte någon ro.* (Josefsson 1999:750)
Therefore gives me Tut.'s curse not any peace
'Therefore, Tutankhamun's curse gives me no peace.'

In my view, this indicates that there is some lower subject position for 'strong' subjects, in a parallel to the behavior of strong objects which are also restricted to a low position. So, between (53) and (54) we are actually looking at a diagnostic for some phenomenon that sounds like *Subject* Shift. For this paper I will simply make note of this parallel between OS and subject displacement, but note that this phenomenon generally supports the idea that OS is a property of all nominals, not just objects.

For now, though, let's assume that the referential Long Object Shift objects are simply weak objects that have shifted past a heavy, or in terms of OS, 'strong' subject. This can explain the generalization that Hellan & Platzack (1999:132) make:

> "Most Swedes can take Long Object Shift with weak reflexives, whereas the number of speakers who accept Long Object Shift with object forms of other personal pronouns is considerably smaller."

Remnant vP-movement can help us explain this generalization if the non-referential reflexives stay in situ. Importantly, this gives them essentially the same distribution as *-s*[17]. So, we will derive the distribution of Long Object Shift pronouns in the same way that we derived the placement of *-s* in (37).

5.3. Previous approaches to Object Shift

Linguists have for decades struggled to explain OS conclusively, and a complete solution will not be reached in this paper either. The proposals vary wildly, which I aim to highlight in this subsection. Many, including the original HG (Holmberg 1986), propose that OS is a phonetic process. This constraint is rather unsatisfying in terms of motivation, especially in Minimalism, since the syntax is assumed not to work in terms of phonetic content. Later, Holmberg (1999) revised the approach so that the phonetic rules for OS applied not in the course of the syntactic derivation but in an early-stage PF component dubbed "stylistic syntax". Holmberg places OS-like operations, motivated by discourse-related features such as definiteness, focus, etc., in this component of the grammar. Richards (2004) proposes that HG is

[17] Note that it seems like some Long Object Shift objects that we expect in the remnant vP can optionally behave like weak pronouns. In my analysis, we would predict that non-referential reflexives undergoing weak OS into the adverb field would result in an interpretation of the verb not as a purely formal transitive but a 'true' transitive, i.e., with a true affected event participant as object. I know of no diagnostics to reliably test for transitivity in this way, however.

an effect of a phonetic ordering principle in VO languages, and likewise that object scrambling in German is the effect of an OV parameter. Svenonius (2005b) also views OS through the lens of order preservation.

There are two principal reasons why linguists have gravitated towards a PF approach to OS. First, the data is very complicated. Each North Germanic language seems to have some idiosyncratic OS quality, such as the apparent mobile landing site for weak pronouns in Swedish (47). And secondly, OS appears to be optional in some languages (recall Swedish examples 39-40), and optionality doesn't play well with most accounts of Minimalist syntax. There appears to be no interpretational differences between the shifted and "unshifted" weak pronouns[18]. On the other hand, a growing group of linguists (Broekhuis 2000, Engels & Vikner 2006, and more) are trying to solve these problems by using Optimality Theory (OT). OT can explain seemingly optional displacements by implementing a hierarchy of violable constraints, and thus the idiosyncratic behavior of OS in each language can be pinned to parametric variation in OT.

Hosono (2013) examines the prosodic structure of an array of Scandinavian languages and suggests the OS property is intertwined with the prosodic downstep in a given language. Bentzen et al. (2013) also looks into prosody, among other factors.

The purely syntactic proposals are less common. Chomsky's *Derivation by Phase* (2001) suggests that OS is not a property of the objects but instead an EPP property of (transitive) v*. The differing semantics of shifted objects depend on a relation to an interpretive complex at the phase edge of v*P. Jayaseelan (2001) and Josefsson (2000) suggest that the shifted objects are in an IP-level TopP. It is along these lines that I will attempt to explain OS in this paper, since as we will see, the triggering of OS by phrasal-movement to V2 seems to be a syntactic alternation.

[18] Although, one informant commented that an "unshifted" pronoun is more prominent, perhaps (in my view) due to its proximity to an intonational complex in the low Focus domain.

5.4. Object Shift as displacement into the sub-CP discourse structure

The Cartographic research program (see Cinque & Rizzi 2010, Shlonsky 2010, Rizzi 2013a, Rizzi 2013b) expects there to be extensive discourse structure in the left periphery of CP (Rizzi 1997), as well as parallel structures on the left edges of lower functional domains, as Belletti (2004), Jayaseelan (2001) and others have argued.

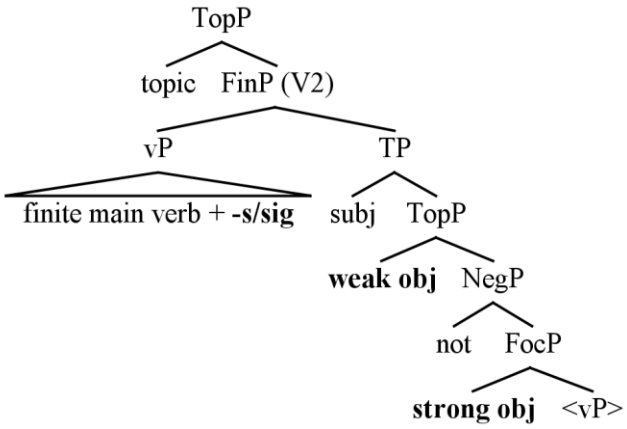
Syntactic or not, OS certainly has some sort of link to the discourse structure. I hope to show that the main discourse or "stylistic" characteristics of OS are not PF-processes as suggested by Holmberg (1999) and others. First, the "unshifted" OS position (42, 45-46) is often associated with focus, esp. contrastive focus as predicted by Belletti (2004) for the low focus domain. Second, the shifted position for weak pronouns may very well be a topic position in the IP-domain. This works especially well under a definition of topic that overlaps strongly with the semantics of unstressed pronouns, such as the one given by Jayaseelan (2001). Weak pronouns are inherently unfocused[19] and generally refer to old information, usually information that's already been established as discourse-prominent in some way. Third, it's impossible for certain non-referential nominals to be discourse-prominent at all (Morimoto 2006). This includes *-s* and the non-referential reflexives that partake in Long Object Shift. I posit that their exemption from syntactic discourse-licensing processes is why they don't ever leave vP[20]. This delineates three categories of nominal objects based on their linear distribution, which appears linked to attested discourse structure in the syntax. Shown below are the three OS positions in my proposal, with *-s*

[19] For counterexamples to common wisdom (Richards 2004:28, Holmberg 1999) that weak pronouns are inherently unfocused, see Cardinaletti & Starke (1999). It's hard to come up with any cases where this isn't true for Swedish, however.

[20] If we treat Long Object Shift as an integral part of our analysis of OS, we must raise the question of why Long Object Shift occurs only in Swedish and Icelandic (Hellan & Platzack 1999:132). For this paper, however, I will simply focus on Swedish, hoping that the generalizations presented here are of use in diagnosing the cross-linguistic differences in OS.

and non-referential reflexives (e.g. some instances of *sig*) in situ in vP, weak objects in an IP-level TopP, and strong objects in a vP-level FocP:

(56)



In this sense, discourse properties could be argued to underlie the very existence of OS; nominals that can't get discourse properties are thus exempt from the whole ordeal, and remain in situ.

But (56) paints in broad strokes. One problem with saying that weak objects are in a topic position is their variable linearization in the adverb field. Recall that there appears to be a mobile landing site for weak pronouns in Swedish (see 57 below). The optionality of OS (39-40) is another issue if weak pronouns are consistently topics. These drawbacks can be merged into one problem if we consider weak pronouns able to go anywhere in the adverb field, including the very edges:

(57) =49 *Igår läste han **dem** ju alltså troligen inte.* (Hellan & Platzack 1999:130)
Yesterday read he them as-you-know thus probably not
'Yesterday he probably did not read them, you know.
*Igår läste han ju **dem** alltså troligen inte.*
*Igår läste han ju alltså **dem** troligen inte.*
*Igår läste han ju alltså troligen **dem** inte.*
*Igår läste han ju alltså troligen inte **dem**.*

So, the seemingly "unshifted" position might be considered just the least shifted position, allowing us to generalize that OS is in fact obligatory, like it is for Danish. Our problem in describing Swedish is thus reduced to the need to account for the mobile landing site.

There are several possible explanations for such a behavior. Mobile topics are not altogether unheard-of in the literature. One possible solution is that topicalization is really just predication (as den Dikken 2006 suggests), and we can make a specifier landing site for weak pronouns anywhere in the adverb field[21]. Unfortunately, this isn't in line with the Cartographic assumptions that led to us to the assumption that there was rich syntactic discourse structure in the adverb field. Another possibility is that weak pronouns are simply escaping the Focus domain since they are by necessity [-Foc] (Richards 2004:28, Holmberg 1999). It wouldn't matter where they escaped to, just that they got above that domain in the adverb field, allowing for the attested mobile landing site. But if nominals enter the syntax as [±Top] or [±Foc], why don't they consistently go to the topic or focus positions? What stops them from evacuating to the adverb field in cases when the verb doesn't move, as in (43-44)? It won't do to simply say that OS is caused by discourse features. We need some way of linking the occurrence of OS with XP-movement to V2, even though OS seems to primarily be a discourse phenomenon.

5.5. The feature composition of the object classes

In this section we'll see how the composition of various object types affects their displacement in the clause. The first compositional distinction we will draw is between Long Object Shift objects and referential objects. The questions posed by HG have now been fundamentally reversed: based on parallels with *-s*, we can analyze pronouns that undergo Long Object Shift as not actually undergoing any movement. Non-referential nominals such as *-s* and Long Object Shift pronouns do not partake in OS, staying in situ in the vP. The generalization

[21] If weak pronouns are bare Ds (as suggested in Josefsson 1999) this is actually similar to the kind of head movement that Fanselow (2004) describes, where a head moves anywhere within its extended projection, although it was not intended to describe nominals.

encouraged by HG-type evaluations is made obsolete by vP-remnant movement since we now expect the weakest of all objects not to shift at all. Nilsen (2003) also independently reaches this conclusion, and without considering the nature of *-s*. This is the opposite view of proposals like Cardinaletti & Starke's (1999) analysis of weak pronouns and clitics, where less content in the DP is correlated to object displacements across longer distances.

The factor at play between objects that displace and those that stay in situ appears to be reference. Referential objects undergo OS because they have or need discourse features, whereas non-referential objects do not even have the possibility of having discourse features. I thus posit that the OS-triggering property is expressed as a feature of referential D, or D_{Ref}. Let's suppose that D_{Ref} has an uninterpretable discourse feature [uDisc][22]. [uDisc] gets checked if it gets c-commanded by a Top/Foc head in the adverb field. If the uninterpretable feature remains at the end of the derivation, the derivation crashes. This way, we do away with the problem (mentioned in section 5.4) of having nominals enter the syntax already specified as [±Top] or [±Foc] (such as in Richards 2004:28 and Holmberg 1999). Since nominals don't always undergo OS (such as in cases of no verb movement), they can simply be licensed via c-command in these cases since they will be below the licensing heads. It also provides a solution to the problem of the Swedish mobile landing site for weak pronouns (57): since Top does not directly attract OS nominals, it can license them anywhere in the adverb field, as long as they have escaped the fronted vP.

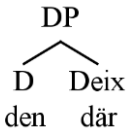
[22] D_{Ref} could bear this [uDisc] feature or, following a Cartographic-style one-feature-per-head account, RefP could be an additional functional layer on D which by default carries the value [uDisc]. This latter account would be similar to Cardinaletti & Starke's (1999) decomposition of D for the various object classes. But again, note that Cardinaletti & Starke predict the complete opposite behavior: in their model, nominals that lack a functional layer need to be dominated by the matching functional layer in the clause, thus triggering raising. But I argue, for OS, that it is the extra content on nominals that motivates displacement.

Note that here I use the term referential to mean even indefinite pronouns like *en* 'one (ACC)' and indefinite DPs that do not have a direct referent, instead quantifying over the set of possible referents, such as *a car* (= some car). These do not behave differently than referential nominals in terms of OS, so we do not wish to make a distinction between this type of quantification and 'true' reference here. It seems reasonable to assume that quantification and reference are two sides of the same phenomenon, since both are completely absent from *-s* and Long Object Shift objects. I will simply refer to both reference and quantification together as "reference" in this paper. Support for an idea like this can be found in Partee (2005), where it's suggested that indefinite quantifiers need to be licensed by c-commanding operators in the functional structure. This is similar to what I'm proposing here for *all* nominals with reference/quantification features. Baker (2006:12) also links object displacement with semantic features like reference.

Now that we've outlined the difference between OS objects and non-OS objects, we have a further distinction to make. What separates strong and weak pronouns? Both of these classes are referential and undergo OS, yet they have distributional differences as we've outlined in previous sections. Josefsson (1999) describes how the internal structure of pronouns, demonstratives, and DPs can predict key properties of OS. On Josefsson's analysis, weak pronouns are bare D heads, with only the necessary phi-features (and for our purposes, [uDisc], since they have reference). Strong pronouns and full DPs differ in that they have extra content.

For a demonstrative like *den där* 'that (lit. it there)' in (58), it's plain to see in Swedish that the pronominal D has merged with a deictic head of sorts:

(58) (adapted from Josefsson 1999:745)



On analogy with this, for strong pronouns, we can say that D has merged with a focus element of the same category as Deix that gives it its stress (Josefsson 1999:754). And on my account, full DP objects might be said to have some form of Deix as well, since they share distribution with these stronger pronominal elements. This follows naturally if full DPs have the full gamut of projections available to nominals. We can now motivate these objects moving as a class to the same position in the clause: assuming that there is a basic commonality between focus and deixis, there is a Focus domain above vP (such as in Belletti 2004) that licenses some feature on Deix, we'll call it [uFoc]. Josefsson (1999:754) suggests that the necessary movements take place in an information-structural post-syntactic stage of the derivation, but since we need objects to evacuate vP before remnant vP-movement, we must assume it to be syntactic.

To sum up this subsection, we have a tripartite distinction between the object classes:

(59)

	-s/Long Object Shift obj	Weak obj	Strong obj
$D_{Ref} \rightarrow$ [uDisc]	-	+	+
Deix $\rightarrow$ [uFoc]	-	-	+

As a final note on the matter, it's worth mentioning that (59) is different from Cardinaletti & Starke's (1999) tripartite distinction between clitic/weak/strong pronouns. Swedish does in fact have a separate class of (phonetically distinct) clitics which do not behave in quite the same way as weak objects (Hellan & Platzack 1999, Josefsson 1999). I ignore these 'true' clitics in this paper, assuming the traditional explanations of clitic displacement to be accurate.

5.6. Deriving Object Shift

I will now set out to show what a rough derivation of OS might look like with the properties we have ascribed to it. Let's begin with a basic set of examples where the main verb moves to V2:

(60) *Därför skäm-**s** jag inte.* (Internet)
Therefore be.ashame-*s* I not
'Therefore, I'm not ashamed.' [-*s*-psych verb]

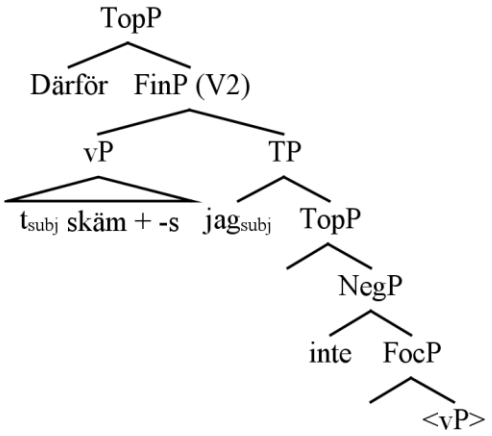
(61) *Igår såg jag **den** inte.*
=39 Yesterday see.PAST I it not
'I didn't see it yesterday.' [Weak shifted pronoun]

(62) *Igår såg jag inte **den**.*
=40 Yesterday see.PAST I not it
'I didn't see it yesterday.' [Weak "unshifted" pronoun]

(63) *Igår såg jag inte **DEN**.*
=42 Yesterday see.PAST I not THAT
'I didn't see THAT yesterday.' [Strong "unshifted" pronoun]

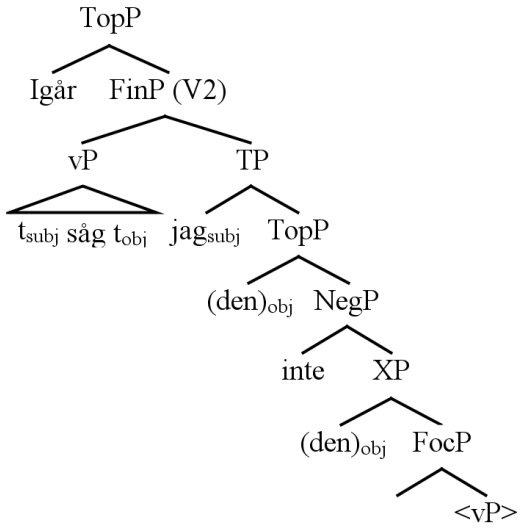
For (60), the derivation proceeds relatively simply, since there is no OS:

(64) (diagram for example 60)



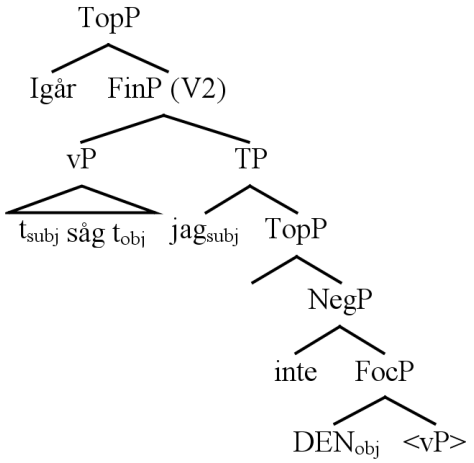
Broadly, in (64), T first inflects the verb through c-command (we have null tense marking here due to a phonological effect of -s). Then the subject moves to Spec,TP, ostensibly for Case reasons. Finally, the vP is attracted to FinP for V2. In (61-62) we have weak OS:

(65) (diagram for examples 61-62)



In (65), we see the object evacuating to a mobile landing site in the adverb field. It has a feature [uDisc] that causes the derivation to crash if it isn't checked by the Topic head. The V2 position is not a place where this feature can be checked, so the object must move into the adverb field. Since it's not being attracted by the Topic domain, it can move anywhere below the Top head in the adverb field, hence the optional, unidentified, XP landing site below Neg. Note that if this [uDisc] feature was checked upon Merging the lower Topic head, *den* in situ would be licit. This means that the checking relation needs to hold at the end of the derivation for the pronoun to be licensed. Perhaps this matters for the semantics interface. Finally, we have strong OS as in (63):

(66) (diagram for example 63)



The strong object in (66) has Deix with [uFoc] so it moves out of vP to the Focus domain (it will be illicit if it remains in situ, due to the break in the c-command relationship between Foc and the object upon V2 kicking in). [uDisc] is checked in this position as well. We don't need to stipulate a 'freezing' effect for the low focus domain like the one Belletti (2004) observes. The stressed pronoun being 'frozen' to its distribution in the focus domain is a secondary effect of needing discourse relations to hold at the end of the derivation. Also note that all derivations with demonstratives or full DP objects will proceed precisely like (66) did with the stressed pronoun.

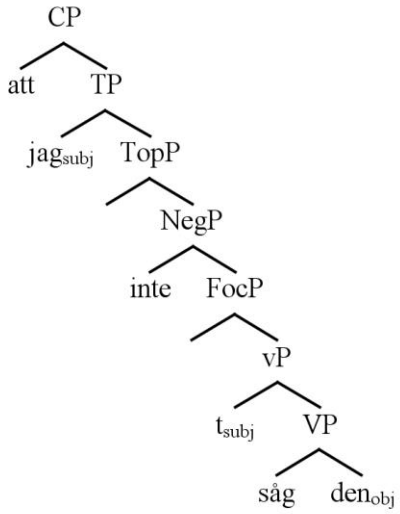
I will now attempt to show that, using these processes and restrictions, it's possible to derive the verb movement trigger for OS that HG originally set out to describe.

(67) *...att jag inte såg* ***den.***
=43 that I not see.PAST it.
'…that I didn't see it'

(68) *Igår hade jag inte sett* ***den***.
=44 Yesterday had I not see.PERF it
'I hadn't seen it yesterday.'

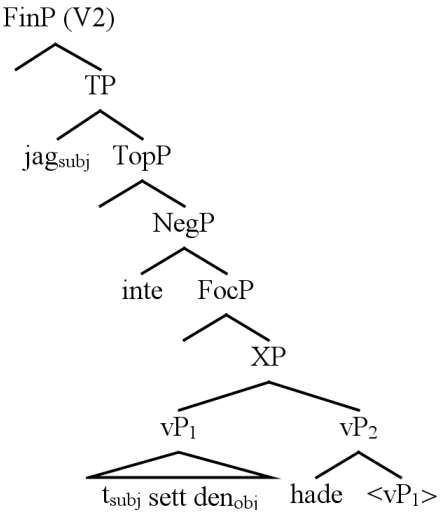
For (67), little needs to happen for the weak pronoun to be licensed. The object doesn't undergo OS since its c-command relation with the Top head isn't threatened by any phrasal movement (the complementizer blocks V2):

(69) (diagram for example 67)



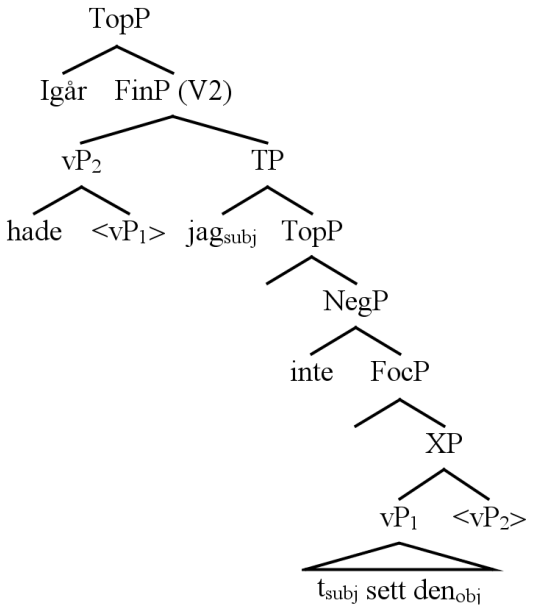
The Topic head can c-command straight down, all the way through the VP to license [uDisc] on *den*. The situation is more complicated when dealing with auxiliaries like in (68), however. We will view this derivation in two stages. Before remnant movement to V2 (70), we witness a preemptive remnant movement to 'save' the contents of the lower vP_1 from going unlicensed:

(70) (diagram for pre-V2 example 68)



In this position, the object is not at risk for phrasal movement to V2. It is unclear what the exact landing site is, in fact, it may very well be variable[23]. We analyze the auxiliary as belonging to another vP, vP_2, that dominates the main verb, and this has the welcome side-effect of evacuating the vP that will now undergo movement to V2, as shown here:

(71) (diagram for post-V2 example 68)



5.7.Consequences and speculation

For this analysis to be complete, we would still need to look at some of the other triggers that HG predicts for OS. Recall that HG stipulates that objects cannot shift over any phonetic content from VP. This includes verb particles and prepositions. Perhaps the particles and PP objects can be treated much like a multiple little v construction (70-71). Also, if there are adverbs base-generated in vP, we need some way of evacuating them before V2 occurs. Perhaps all adverbs (except the ones that can follow the verb to V2) have to abide by scope criteria that would be broken in the event of phrasal movement to V2 (see Nilsen 2003).

[23] See evidence from Wiklund et al. (2007:20) about remnant vPs with multiple verbs in them, appearing in variable locations in the middle of the adverb field.

Note that the operations I've proposed for OS require a rather large amount of syntactic lookahead – there are numerous 'saving' operations happening here that appear to be able to see what happens in the derivation's future. Or, this could be system that too often reaches a 'doomed state', with the OS operations not being able to predict that the derivation will crash in the end. Unfortunately, both of these possibilities conflict with the more economical view of computational load that is favored in Minimalism. But if we consider that the semantics interface may be involved in ruling out illicit OS operations, the problem becomes similar to how we might derive other scope phenomena.

Note, however, that our derivation appears free of (roll-up) head movement. This is favorable since there are numerous theoretical problems with roll-up adjunction (Fanselow 2004, Roberts 2011). Also positive is that the apparent "optionality" of weak OS is unproblematic in this model, since [uDisc] can essentially be checked anywhere in the Adv field. And since all nominals are expected to have the relevant OS features, we expect that subjects may undergo a similar process, something which is confirmed through looking at the distribution of Long Object Shift and weak pronouns around subjects (section 5.2). This process actually seems similar to the Definiteness Effect in some regards, since a semantic feature of D triggers a syntactic alternation.

This model makes significant predictions about the nature of OS, specifically, that it will only happen in cases of phrasal movement or other blocking of scope phenomena. Thus, English still has the relevant OS-motivating features but lacks displacement due to a lack of vP-movement. It would be interesting to test if this prediction was correct, for example with the Dalecarlian dialect of Swedish, which according to Hosono (2013) does not have OS.

6. Conclusion

In this paper we have seen that the Swedish verbal suffix *-s* can be analyzed as a non-referential verb argument, which has profound effects on our analysis of Swedish clause structure and Object Shift. We have dissected the semantic functions of *-s*, and argued that all can be accounted for by it being a non-specific, non-referential pronominal. My analysis of *-s* in the Swedish clause differs from Julien's (2007) in that I view the fronted constituent it's contained in to be vP. This analysis differs from a cliticization approach, such as Cardinaletti & Starke's (1999), or an incorporation approach (Baker 1985a). *-s* is simply a pronoun with the correct distribution to appear fused to its verb at all times.

Moving forward, we have extended our analysis of *-s* to the greater context of object displacement in Scandinavian. I've argued that these phenomena taken together are evidence of reference properties playing a role in discourse syntax[24]. We correctly predict, based on our analysis of *-s*, that non-referential nominals will move to V2 with the verb. Other objects appear to raise to other positions depending on what additional D-layer properties they have. Remnant vP-movement combined with discourse-licensing operations allow us to make more satisfying predictions about pronoun behavior that are directly correlated with nominals' richness of feature content.

Treating *-s* as an argument in this manner has very interesting theoretical implications for the syntax. As the most feature-impoverished nominal in the North Germanic family, *-s* allows us to diagnose the some of the causes behind processes that affect nominals, such as Object Shift. Hopefully, this analysis of *-s* could also be useful in diagnosing the cross-linguistic

[24] And recent research such as Andréasson's (2009) on the OS behavior of proforms with CP or VP antecedents suggest that there may be more fine-grained distinctions to be drawn.

grammaticalization target for these types voice-affecting nominals; we see them in a great number of languages, and not all of them can be said to behave like a typical clitic.

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