Motivations for Scandinavian Negative Indefinite Shift

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1 Introduction

Negative Shifting (NegShift) is a process in the Scandinavian languages where a negative indefinite expression (NI) obligatorily shifts to a position outside of the VP. The Danish examples in (1) show that the NI pronoun *ingenting* 'nothing' and the complex DP *ingen bøger* 'no books' both shift across the verb into a position that is between the adverbials and the verb in the case of *ingenting* and between the auxiliary and the verb in the case of *ingen bøger*.

(1) NegShift of pronouns and complex DPs

a. Manden havde måske *ingenting* [$_{VP}$ sagt t_o].
man-the had probably nothing said
'The man hadn't said anything.'

b. Jeg har *ingen bøger* [$_{VP}$ lånt børnene t_o.]
I have no books lent children-the
'I haven't lent the children any books.'

NegShift bears some resemblance to the greater studied Scandinavian Object Shift (OS), which causes a weak pronoun to shift to a position outside of the VP when the verb has raised for V2 (Holmberg 1986, 1999).

(2) Jag kyssade$_v$ henne$_o$ inte [$_{VP}$ t_v t_o] Sw
I kiss.PST her NEG
'I didn't kiss her.'

Interestingly, several authors have claimed that Scandinavian OS is driven and determined by prosodic factors (see Erteschik-Shir 2005, Erteschik-Shir & Josefsson 2017, Erteschik-Shir, Josefsson & Köhnlein 2020, Brinkerhoff & Tengesdal 2021 for some recent accounts). However, there are others that claim that OS is best accounted for as syntactic movement to satisfy PF, information structure, or some other syntactic requirement (Holmberg 1999, Thráinsson 2001, Bentzen, Anderssen & Waldmann 2013, among many others).

However, it is clear that not all instances of NegShift directly correlate to the accounts of OS. One of the chief reasons for this difference is due to the wider range of material that is allowed to undergo NegShift, which includes both pronouns and full DPs, whereas only prosodically weak object pronouns are allowed to undergo OS. Further discussion about the similarities and differences between OS and NegShift is found in §2. However, even though there are differences the one thing that could unite them is there shared movement of pronouns. There have been several

claims that NegShift has a preference for shifting ”lighter” NIs over ”heavier” ones (Christensen 2005, Penka 2011). This has the effect that speakers prefer shifting pronouns and small DPs over more complex DPs, see §5 for a more detailed discussion.

The problem that I am focusing on for my qualifying paper is whether or not there is a prosodic motivation for NegShift in the Scandinavian languages given this claim made by Christensen (2005) and Penka (2011). The rest of this paper will discuss the properties of NegShift and OS and how I plan on solving the problem related to whether or not there is prosodic motivation for NegShift.

2 Distributional properties of NegShift versus OS

As mentioned above there are certain patterns that NegShift and OS share and differ in. Both OS and NegShift involve the movement of elements from their base position to a position that is to the left of the VP, as seen by the movement across negation/adverbials in the case of OS, (3a), and across the verb in the case of NegShift, (3b).

(3) Distributional similarities between OS and NegShift in Swedish.

a. Jag kyssade$_v$ henne$_o$ inte [$_{VP}$ t$_v$ t$_o$]
I kiss.PST her NEG
‘I didn’t kiss her.’

b. Jag har ingen$_o$ [$_{VP}$ kyssat t$_o$]
I have no-one kiss.PST.PTCP
‘I haven’t kissed anyone.’

Additionally, they are similar in that they both operate on pronouns, weak object pronouns for OS and NI pronouns for NegShift.

However, in terms of the differences between OS and NegShift, two main differences exist. First; NegShift applies to full negative DPs such as *inga böcker* ‘no books’ in addition to pronouns. Second; NegShift *is not* subject to Holmberg’s Generalization but is instead subject to an ”Anti-Holmberg Effect” where it can shift across phonological material, whereas OS is subject to Holmberg’s Generalization.

Holmberg’s Generalization states that “[OS] cannot apply across a phonologically visible category asymmetrically c-commanding the object position except adjuncts” (Holmberg 1999: p. 15). This means that OS can only occur if there is no phonological material, except adjuncts, between its base position and the position to which it shifts. In contrast to OS, NegShift only applies if the verb has not moved out of the VP or if there is nothing between the raised verb and the base position of the NI (Fox & Pesetsky 2005, Engels 2012).

(4) a. Verb in-situ NegShift

Ég hef *engan* [$_{VP}$ **séð** t_o]. Ic
I have nobody seen
'I haven't seen anybody.'

b. String vacuous NegShift

Jag **sa** *ingenting* [$_{VP}$ t_v t_o]. Sw
I said nothing
'I said nothing'

We can be confident that movement is occurring in (4b) because of the interaction of the NI and certain low aspectual adverbials. As discussed in Nilsen (1997) adverbs are allowed to appear below negation in Norwegian in the exact same order Cinque (1999) observed for Italian. Svenonius (2002) further remarks that we can see this interaction between negation and low adverbs like *tidlig* 'early'.

(5) a. Fænsene har *på intet tidspunkt tidlig* slått av TV'en.
the.fans have on no time early turned off the.TV
'The fans have at no time turned the TV off early'

b. * Fænsene har *tidlig på intet tidspunkt* slått av TV'en.
the.fans have early on no time turned off the.TV

Evidence collected and reported in Engels (2011, 2012) shows that NegShift is in fact more complicated and subject to greater variability than was previously thought. Engels found that NegShift was permissible from a greater number of contexts and was more likely to occur depending on the variety and register that was being used, which is summarized in Table 1 taken from Engels (2012). In Table 1, ✓ indicates that NegShift occurs, * indicates that NegShift cannot occur, ? means that there was idiosyncratic variation between speakers.

Table 1: Distribution of NegShift across Scandinavian languages. (WJ = West Jutlandic, Ic = Icelandic, Fa = Faroese, DaL = Danish Linguists, SwL = Swedish Linguists, Scan1 = literary/formal Mainland Scandinavian, Scan2 = colloquial Mainland Scandinavian and Norwegian)

NegShift across		WJ1	WJ2	Ic	Fa	DaL1	DaL2	SwL	Scan1	Scan2
String-vacuous		✓	✓	✓	✓	✓	✓	✓	✓	✓
Verb		✓	✓	✓	✓	✓	✓	✓	✓	*
IO	verb in situ	✓	✓	✓	✓	✓	✓	✓	✓	*
	verb moved	*	*	*	*	*	*	*	*	*
Preposition	verb in situ	✓	✓	✓	✓	?	?	*	*	*
	verb moved	✓	✓	?	*	*	*	*	*	*
Infinitive	verb in situ	✓	✓	✓	✓	✓	*	?	*	*
	verb moved	✓	*	*	✓	*	*	*	*	*

Of crucial interest to our discussion are the rows showing the behavior of NegShift with respect to crossing a verb and crossing an indirect object. The reason these rows are of interest lies in how NegShift behaves to these syntactic objects when compared with OS. This comparison is carried out in the following section.

3 Comparison of NegShift and OS

We can compare certain patterns that NegShift has against patterns that OS has. In so doing we can determine whether they are governed by the same or different factors. If OS and NegShift are derived by the same trigger then we expect them to behave the similarly to one another. If they are not similar than this suggests that they are not derived by the same trigger.

There are three different metrics that we can use to determine the governing factors. These factors will examine: (i) how obedient to Holmberg's Generalization are NegShift and OS; (2) Where the loci of movement are; and (iii) how NegShift and OS interact with one another.

I show that these two phenomenon are in fact different with NegShift being governed and derived by syntactic factors and not prosodic as described for OS in Erteschik-Shir (2005), Erteschik-Shir & Josefsson (2017), Erteschik-Shir, Josefsson & Köhnlein (2020), and Brinkerhoff & Tengesdal (2021).

3.1 With respect to Homlberg's Generalization

The most defining characteristic for OS is its adherence to Holmberg's Generalization, which is defined formally in 6.

(6) Holmberg's Generalization:
Object Shift cannot apply across a phonologically visible category asymmetrically c-commanding the object position except adjuncts (Holmberg 1999: p. 15)

This generalization captures the fact that OS is only possible if the verb has evacuated the VP and there is no phonologically visible category present, except adverbials.

Examples of OS

(7) Peter så_{v} **ham$_{\text{o}}$** ikke $[_{\text{VP}}\ t_{\text{v}}\ \mathbf{t_{o}}]$ (Across negation)
Peter see.PST him not
'Peter didn't see him.'

(8) Peter så_{v} **ham$_{\text{o}}$** ofte $[_{\text{VP}}\ t_{\text{v}}\ \mathbf{t_{o}}]$ (Across adverbials)
Peter see.PST him often
'Peter often saw him.'

If, however, there is anything in the VP then OS is blocked and the object pronoun must remain in situ. Note that there is some variability when it comes to how OS interacts with verbal particles, which remain low. Verbal particles will be discussed in more detail in Section 5.2.

(9) Blocking OS

a. Blocking by verb

Peter har ikke [$_{VP}$ sått ham].
Peter has not seen him
'Peter didn't see him'

b. Blocking by object

Peter lånte$_{v}$ ikke [$_{VP}$ **Tore$_{io}$** t$_{v}$ **dem$_{o}$**]
Peter lend.PAST not Tore them
'Peter didn't lend them to Thor.'

As mentioned at the end of Section 2, NegShift seems to be the polar opposite of OS and generally requires the verb to have remained in situ, which is evidenced by the overwhelming acceptability of the NegShift when the verb remains in situ per Table 1.

(10) Examples of NegShfit with the verb in situ.

a. Ég hef *engan*$_{o}$ [$_{VP}$ **séð** t$_{o}$.] Ic
I have nobody seen
'I haven't seen anybody.'

b. Í dag hevur Petur *einki*$_{o}$ [$_{VP}$ **sagt** t$_{o}$]. Fa
today has Peter nothing said
'Peter hasn't said anything today.'

c. Manden havde måske *ingenting*$_{o}$ [$_{VP}$ **sagt** t$_{o}$]. Da
man-the had probably nothing said
'The man hadn't said anything'

NegShift is also insensitive to any phonologically visible category, which results in NegShift occurring regardless of the amount of phonological material present in the VP. We see this with NegShift being acceptable when it crosses an indirect object.

(11) NegShift across indirect objects.

a. Jón hefur *ekkert* [$_{VP}$ **sagt Sveini** t$_{o}$]. Ic
Jón has nothing said Sveinn
'John hasn't told Sveinn anything'

b. Í dag hevur Petur *einki* [$_{VP}$ **givið Mariu** t$_{o}$]. Fa
today has Peter nothing given Mary
'Today, Peter hasn't given Mary anything.'

c. Jeg har *ingen bøger* [$_{VP}$ **lånt børnene** t_o]. WJ/Scan1
I have no books lent children-the
'I haven't lent the children any books.'

We see that NegShift does not obey Holmberg's Generalization, whereas OS does. In fact, NegShift's generalization seems to be the exact opposite of the Holmberg's Generalization. This behavior that NegShift exhibits in requiring verbs to remain in situ and being able to cross phonologically visible material has lead some authors to call this the *Anti-Holmberg Effect* (Fox & Pesetsky 2005, Engels 2012).

3.2 With respect to landing sites

(12) OS occurs to the left of all adverbials.

a. Jeg lånte *hende*$_{IO}$ faktisk$_{Adv}$ aldri$_{Adv}$ [$_{VP}$ t_{IO} bøgerne].
I lent her actually never books-the
'I actually never lent her the books'

(13) NegShift occurs to the right of most adverbials with the exception of low adverbials (Nilsen 1997, Svenonius 2002).

a. Jeg har faktisk$_{Adv}$ *ingen bøger*$_{DO}$ [$_{VP}$ lånt Othilia t_{DO}].
I have actually no books lent Othilia
'I didn't actually lend Othilia any books.'

b. Fænsene har på *intet tidspunkt*$_O$ tidlig$_{Adv}$ slått av TV'en.
fans-the have at no time early turned off TV-the
'The fans have at no time turned the TV off early'

> Claim: OS and NegShift move to different locations.

3.3 With respect to NegShift and OS interactions

(14) When there are both weak object pronouns and NIs in the sentence they both shift to their respective landing sites.

a. Jeg lånte *hende* fraktisch *ingen bøger*.
I lent her actually no books
'I didn't actually lend her any books.'

(15) When the verb remains in situ OS is blocked from occurring but NegShift is still allowed to occur.

a. Jeg har *ingen bøger* lånt *hende*.
I have no books lent her
'I haven't lent her any books

CLAIM: OS and NegShift are not the same.
BIG CLAIM: OS and NegShift have different triggers for movement.

If both OS and NegShift were allowed to occur Broekhuis notes that they are subject to certain ordering restrictions. Citing examples from Christensen (2005: 163ff), Broekhuis shows the following pair of examples:

(16) a. Jeg har <ingen bøger> lånt hende <*ingen bøger>.
I have no books lent her
'I haven't lent her any books

b. Jeg lånte *henda* fraktisch *ingen bøger*.
I lent her actually no books
'I didn't actually lend her any books.'

In (16a), we see that when we have a negative object that it shifts to a position higher than the *v*P if it were to remain in-situ as it would be ungrammatical and would require the use of *ikke* 'not' and the negative polarity item *nogen* 'any'.

(17) Jeg har *ikke* lånt hende *nogen* bøger.
I have not lent her any books.
'I haven't lent her any books.'

However, when the main verb has raised to C^0 as in (16b) then the weak pronominal moves to a position higher than the adverb *fraktisch* 'actually'. The negative object is not able to move to the similar position that is higher than the adverb. Additionally, this results in OS > NegShift which Broekhuis reports to a universal. This does help us see that that even though these two phenomena appear to be similar they are in fact slightly different, due to the differences in the where the two different movement operations' targets are.

One of the most interesting aspects from Table 1 is the sharp contrast as to whether or not NegShift can happen with an indirect object. From the table we see that all varieties, except Scandinavian 2 which is equivalent to Norwegian and some colloquial varieties, allow shifting across an indirect object if the verb remains in situ. If the verb has moved for V2 then there are no varieties that allow shifting across the indirect object.

Christensen (2005) reports on this behavior between NegShift and indirect objects and summarizes his findings in Table 2. In this table No^+/Sw^+ represent some varieties of Norwegian

and Swedish respectively in contrast to more standard Norwegian (No) and Swedish (Sw), FS represent the Swedish variety which is spoken by Swedes in Finland.

Table 2: Summary of OS and NegShift accoriding to Christensen (2005).

IO-DO	Ic	Da/Fa	No/Sw	No$^+$/Sw$^+$	FS
Pron-Pron	+ +	+ +	% %	§ §	- -
Pron-NegQP	+ +	+ +	+ +	+ +	- -
NegQP-Pron	+ -	+ -	+ -	+ -	- -
Pron-DP	+ %	+ -	% -	% -	- -
DP-Pron	% -	- -	- -	- -	- -
DP-DP	% %	- -	- -	- -	- -
DP-NegQP	% %	- -	- -	- -	- -
NegQP-DP	+ -	+ -	+ -	+ -	- -

(KEY: + = obligatory, - = blocked, % = optional, § = optional and 'non-parallel')

The sections on this table that are most interesting are those involving what Christensen calls Negative Quantifier Phrases (equivalent to NIs). However, this does conflate NI determiners and NI pronouns into a single category. According to Christensen, when the IO is a pronoun and the DO is a NegQP both obligatorily shift when the verb has been able to swift to C, (18a), otherwise only the NegQP shifts, (18b).

(18) a. Jeg lånte *hende(IO)* faktisk *ingen bøger(DO)*
I lent her actually no books
'I actually didn't lend her any books'

b. Jeg har *ingen bøger(DO)* lånt *hende(IO)*
I have no books lend her
'I didn't lend her any books'

If, however, the IO is a NegQP and the DO is a pronoun then the pronoun is blocked from shifting, producing a freezing effect on OS.

(19) Freezing effects on OS

a. Jeg lånte faktisk *ingen(IO) den(DO)*
I lent actually no-one it
'I actually lent it to no-one.'

b. * Jeg lånte *den(DO)* faktisk *ingen(IO)*

This is actually a very important point for the question of the prosodic nature of the shifting. If we assume that these are moving to a position outside of the VP or are some sort of adjunct to VP then we would assume that OS should be allowed according to Holmberg's Generalization.[1] However, this is not the case if we follow the logic from Holmberg's Generalization.

[1]See Thráinsson (2010) for discussion and debate about where negation is located in Scandinavian languages.

Holmberg's Generalization requires that OS occur if there is not a phonologically visible category that asymmetrically c-commands the object's base position. Because OS is blocked, then Neg is a phonologically visible category that asymmetrically c-commands the object.[2]

An additional case that is interesting is when both the indirect and direct objects are allowed to shift. Broekhuis (2020: 417f) observes that weak pronominal object shift behaves differently than full DP objects in what loci there are allowed to inhabit. In the case of weak pronominals they are required to appear outside of the *v*P if there is no intervening phonological material (i.e., Holmberg's Generalization Holmberg 1986, 1999).

4 Deriving NegShift

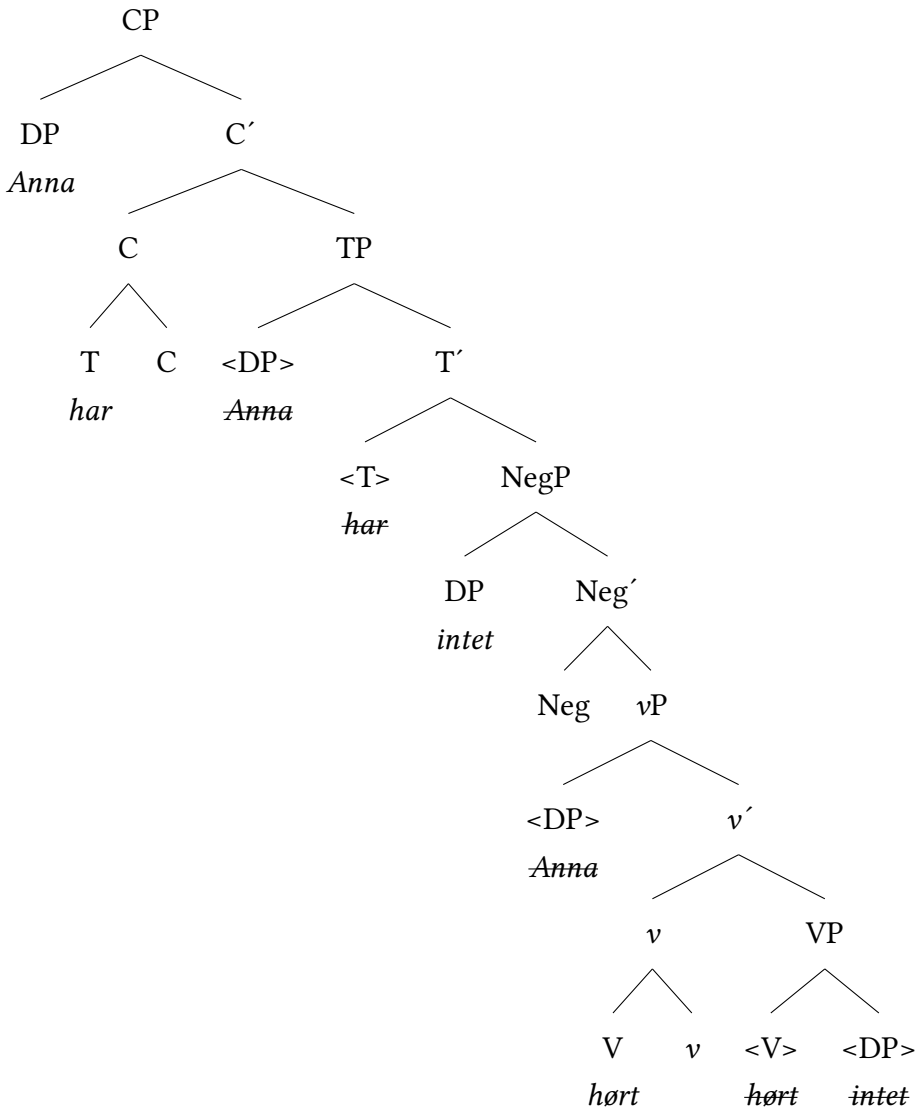
Zeijlstra (2011) is interested in showing providing an analysis of the split-scope interpretation that exists for negative indefinites in Germanic languages. Split-scope is evident when modals and other auxiliaries are present and the negation scopes higher than the modal/auxiliary's scope where the indefinite resides. Zeijlstra assumes that this behavior is the result of the compositional status of negative indefinites similar to the claims made by Iatridou & Sichel (2011). He claims that NIs are composed of a negative operator and an indefinite component and that the split-scope interpretation is the result of a copy-theory of movement (Chomsky 2015).

Following Chomsky movement is not a unique operation that literally moves one element to position higher in the syntax. Instead movement is similar the product of copying a constituent and then remerging it into the syntactic hierarchy. This then results in two or more instances of the constituent, as seen in the syntactic structure for (20).

We see as we proceed along the derivation that the verb is first copied and then merged with *v* leaving behind a complete copy of itself in its base-generated position. This operation of copying and then remerging is then continued until we arrive at spell-out. According to Chomsky (2015), only the highest copy will be pronounced at PF, this is represented by the lower copies having a strike through them.

(20) Derivation of *Anna har intet hørt.*

[2]Another possibility is that we are concerned with the



If we assume that Zeijlstra (2011) is correct in that negative indefinites exist in their base-generated position and in this higher copy because of feature-checking and for interpretation at LF then we expect that the higher copy is the only one that is ever pronounced. However, the facts discussed in §5 present a problem.

As discussed above Danish allows for a pattern where only a negative indefinite of a certain weight is allowed to shift, repeated here from (26).

(21) a. Jeg har *intet*$_o$ hørt t$_o$.
I have nothing heard
'I havn't heard anything.'

b. Jeg har [*intet* *nyt*]$_o$ hørt t$_o$.
I have nothing new heard
'I haven't heard anything new'

c. * Jeg har [*intet nyt i sagen*]$_o$ hørt t_o.
I have nothing new in case-DET heard
'I haven't heard anything new about the case.'

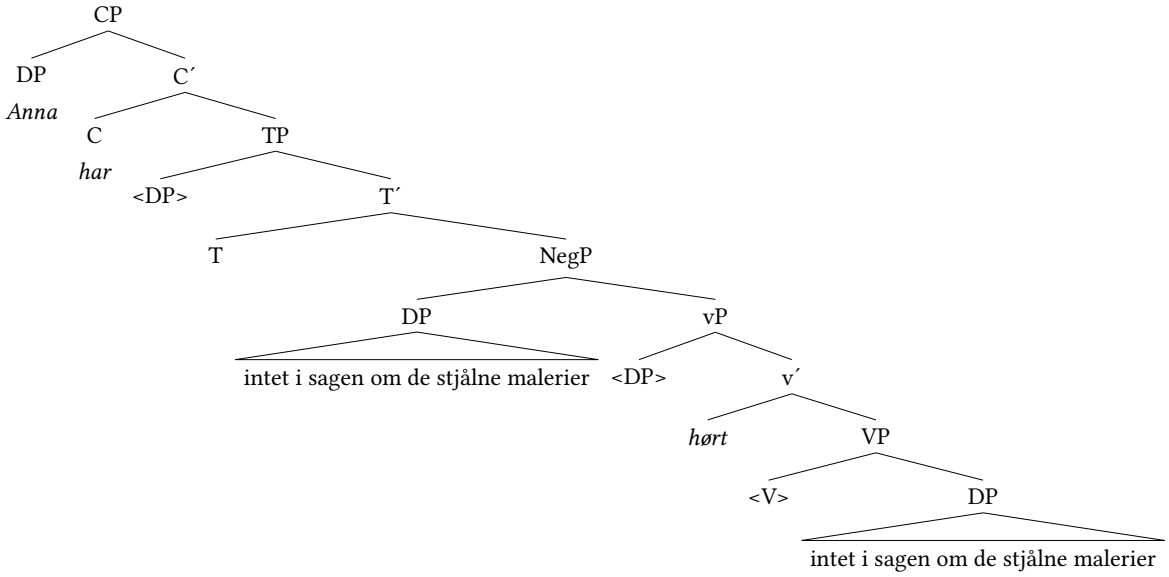
d. * Jeg har [*intet nyt i sagen om de stjålne malerier*]$_o$ hørt t_o.
I have nothing new in case-DET about the stolen paintings heard
'I haven't heard anything new in the case about the stolen paintings.'

For NI DPs that are too heavy to shift as a whole constituent one of the potential repairs is to shift only the NI while stranding the rest of the constituent as in (27a), repeated here.

(22) Jeg har *intet*$_i$ hørt t_i [$_{PP}$ i sagen om de stjålne malerier].

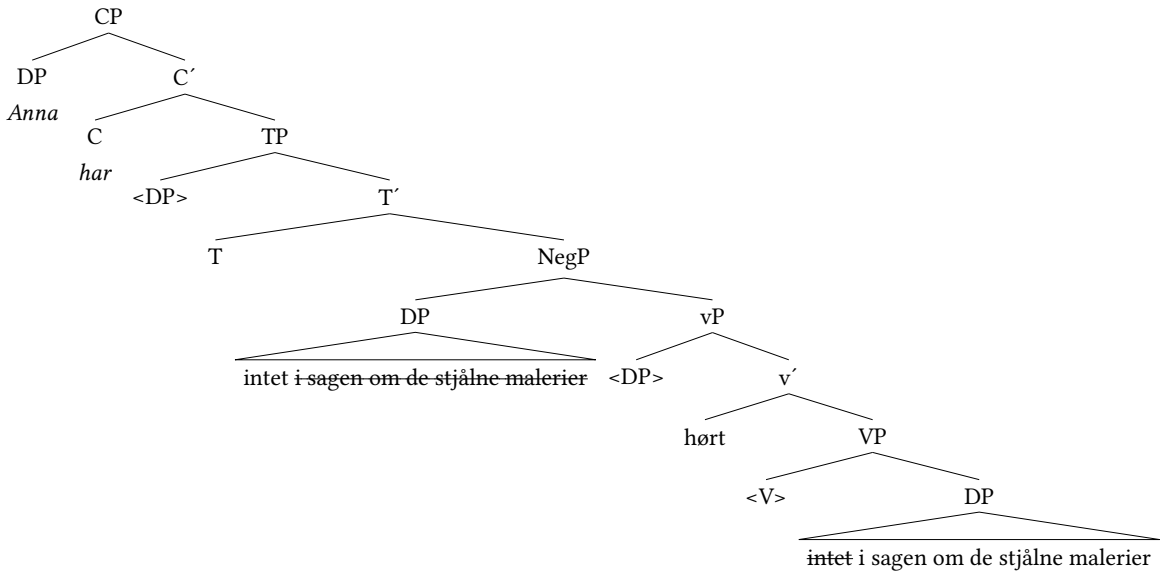
Folloowing Chomsky's (2015) theory of copy-movement and Zeijlstra's (2011) theoy, we would assume that the NI DP would be fully copied from its base-position and merged into NegP.

(23)



At this point during PF, part of the higher copy is deleted leaving only the NI pronoun. In the lower copy *intet* is deleted.

(24)



If Chomsky (2000) is correct and only the higher copy should be pronounced, then the question arises as to why only a part of the copy is deleted.

This is not the first time this sort of problem has arisen. Fanselow & Ćavar (2001, 2002) present evidence that partial deletion is in fact possible and the type of deletion that we observe in (24) is found in other Germanic languages and in Slavic as seen in this example from Croatian.

(25) ~~*zanimljive*~~ *knijge* mi je Marija *zanimljive* ~~*knijge*~~ preporučila
interesting books me has Mary interesting books recommended

According to Fanselow & Ćavar (2001, 2002) the motivation for when partial deletion is possible has its motivations in PF or LF. My QP will explore more about what exactly these motivations are in light of Fanselow & Ćavar, Fanselow & Ćavar and whether prosody plays a role in what is allowed to delete. The other possibility is that this deletion is motivated by LF considerations. If this is prosodically motivated what drives this deletion?

5 Prosodic restrictions on NegShift

However, as noted earlier not all NegShift is treated equal. Christensen (2005: 65f), speaking on Danish, claims that the "weight" of the NI plays a crucial factor in whether or not NegShift occurs.

(26) a. Jeg har *intet*$_o$ hørt t$_o$.
I have nothing heard
'I havn't heard anything.'

b. Jeg har [*intet* *nyt*]$_o$ hørt t$_o$.
I have nothing new heard
'I haven't heard anything new'

c. * Jeg har [*intet nyt i sagen*]$_o$ hørt t$_o$.
I have nothing new in case-DET heard
'I haven't heard anything new about the case.'

d. * Jeg har [*intet nyt i sagen om de stjålne malerier*]$_o$ hørt t$_o$.
I have nothing new in case-DET about the stolen paintings heard
'I haven't heard anything new in the case about the stolen paintings.'

In those instances where the NI is too large one potential repair is to strand the PP while moving just the pronoun or using the negative particle *ikke* and a NPI.

(27) a. Jeg har *intet*$_i$ hørt t$_i$ [$_{PP}$ i sagen om de stjålne malerier].

b. Jeg har *ikke* hørt [*noget* i sagen om de stjålne malerier].

This same behavior has also been remarked upon by Penka (2011) for Swedish.

(28) a. Men mänskligheten har *ingenting*$_o$ lärt sig t$_o$.
but mankind-the have nothing taught themselves
'But mankind haven't taught themselves anything.'

b. ? Vi hade *inga grottor*$_o$ undersökt t$_o$.
we have no caves explored
'We haven't explored any caves.'

My qualifying paper will explore whether or not there is indeed this preference for NegShift of pronouns by conducting a study on the Swedish Culturomics Gigaword Corpus (Eide, Tahmasebi & Borin 2016) and how this phenomenon might relate to prosodic analyses of OS such as those from Erteschik-Shir, Josefsson & Köhnlein (2020) and Brinkerhoff & Tengesdal (2020) and the more syntactically motivated accounts using Cyclic Linearization (Fox & Pesetsky 2005, Engels 2012) or following Zeijlstra (2011) and Iatridou & Sichel's (2011) accounts for NI movement.

5.1 PF deletion

(29) Following the copy theory of movement Chomsky (1993), multiple copies of the NI will be present at PF spell-out.

(30) A question arises as to whether or not phases are have any bearing on the facts presented above.

(31) There are two potential answers

a. Phases do not play a role in determining phonological/prosodic behavior.

b. Phases do play a role in determining phonological/prosodic behavior.

(32) Recent evidence from Weber (2020) suggests that phases do in fact play a role in determining phonological behavior.

(33) In order for the phonology to interact with two copies at the same time, the base generated position and the landing site both must belong to the same phase.

a. This requires that NegP and the rest of the Cinquean hierarchy of adverbials (Cinque 1999) belong to the same phase as *v*P.

(34) Kandybowicz (2008) makes the observation that multiple copies that are generated by the narrow syntax can be *phonologically* realized when there is a identifiable PF well-formedness condition is avoided.

a. Similarly, I argue that PF can also dictate the amount of material that is deleted in those copies.

b. PF being able to delete is not new and was argued for by Ott & Struckmeier (2016) to account for German clausal ellipsis.

(35) In the case of NegShift, there are restrictions on *Mittelfeld* well-formedness, which I will call the Light Mittelfeld Condition (LMC).

a. It has been observed that only a limited amount of structure is allowed and a wide degree of variation is permitted in the *Mittelfeld* (see Haider 2017).

b. I argue that the largest unit that is allowed to remain in the *Mittelfeld* in Scandinavian is a maximal prosodic word (ω_{max}).

(36) Evidence for this comes from the size of the material that is allowed to "shift" in these languages.

(37) As observed for Danish only a pronoun or DP, consisting of just a D and NP, is allowed to occupy the *Mittelfeld* when NegShift occurs.

a. Jeg har *intet*$_o$ hørt t$_o$.
I have nothing heard
'I havn't heard anything.'

b. Jeg har [*intet nyt*]$_o$ hørt t$_o$.
I have nothing new heard
'I haven't heard anything new'

c. * Jeg har [*intet nyt i sagen*]$_o$ hørt t$_o$.
I have nothing new in case-DET heard
'I haven't heard anything new about the case.'

(38) This difference between Danish, which allows full DPs, and Swedish which tolerates full DPs, but prefers pronouns, suggests the *Mittelfeld* in Swedish will delete copies until they are just the NI pronoun.

a. This potential comes down to Swedish being a tonal language and Danish not being a tonal language.

(39) The LMC deleting different amounts of material in Danish and Swedish can also explain Norwegian's lack of NegShift.

a. Norwegian deletes everything as it prefers not to have any copies in the *Mittelfeld*

b. This deleteion would then leave the valued [Neg] feature which gets pronounced as negation which then causes the lower copy to surface with a NPI.

c. This behavior of total deletion is also attested in Danish and Swedish where negation and a NPI is always a potential instead of NegShift.

(40) This results in a three-way system in Scandinavian languages.

a. Those that delete until a full DP is left.

b. Those that delete until a pronoun is left.

c. Those that delete everything and have negation and a NPI.

(41) There seems to be some differences in behavior between the tonal and atonal Scandinavian languages.

a. According to Thráinsson (2004, 2010) Faroese and Icelandic pattern the same as Danish in this regard.

b. This further suggests that there is something unique about being a tonal language that limits the acceptability of NegShifting.

(42) This is summarized in Table 3.

a. It will be noted that if you allow full NI DPs than you also allow pronouns and complete deletion, which results in a negation particle and an NPI.

b. If you allow NI pronouns then you allow a negation particle and an NPI

Table 3: Scandinavian acceptance of NegShift or NPI

	Full DPs	Pronouns	NPI
Icelandic	✓	✓	✓
Faroese	✓	✓	✓
Danish	✓	✓	✓
Swedish	*	✓	✓
Norwegian	*	*	✓

5.2 Scandinavian particle shift

(43) Independent evidence for shifting full DPs into the *Mittelfeld* is observed in particle shifting in Scandinavian languages.

(44) Following Holmberg (1999: p. 2) and Faarlund (2019) there is a difference in behavior between the different Scandinavian languages with what is allowed to shift across a verbal particle.

a. Danish objects, regardless of size, always precedes the verb particle.

b. Norweigan, Icelandic, and Faroese are like English by shifting a pronoun across a particle and optionally for DPs.

c. Swedish does not allow anything to shift across the particles.

(45) Jeg skrev (nummeret/det) op (*nummeret/*det). Da
Jeg skrev (nummeret/det) opp (nummeret/*det). No
Jag skrev (*numret/*det) upp (numret/det). Sw
I wrote (the-number/it) up (the-number/it)
'I wrote the number/it down.'

(46) Additionally, Danish places restriction on the verbal compliment if it is too "heavy" (Müller & Ørsnes In preparation: 44f).

a. If it is larger than a simple DP shifting is blocked.[3]

b. […] så må partiet melde [holdninger] [ud], […]
then must party.DEF make stances out
'[…] then the party must make its stances clear, […]'

c. Den danske regering bør snart melde [ud], [at den støtter de amerikanske
the Danish government must soon make out that it supports the American
planer]
plans
'The Danish government must soon make clear that it supports the American plans.'

(47) This is further evidence that the LMC is an active constraint in these languages.

(48) One explanation for this behavior is the difference in tonal quality between Danish, Norwegian, and Swedish (Erteschik-Shir, Josefsson & Köhnlein 2020).

Prosody, in the form of the LIGHT MITTELFELD CONDITION, plays an active role in regulating the size of the material in the *Mittelfeld*

[3]Examples are from *KorpusDK* as reported by Müller & Ørsnes (In preparation).

6 Conclusion

NegShift is derived by both syntactic and prosodic factors. It is syntactic in movement and prosody is responsible for restricting and regulating the amount of material that is allowed the surface in the higher copy.

7 Alternative syntactic accounts

7.1 Cyclic Linearization account

An alternative to the theory presented above, Cyclic Linearization is a theory that was developed by Fox & Pesetsky 2005 as a way to account for OS and Holmberg's Generalization. This theory works by stipulating that spell-out of the morphosyntax is cyclic and order preserving, which means that as you spell-out each successive spell-out domain you need to ensure that whatever orders existed when that domain was spelled-out persist at the next spell-out domain's ordering restrictions. This theory also had the benefit of accounting for when OS was allowed or not allowed to occur.

This proposal was extended by Fox & Pesetsky (2005) and Engels (2011, 2012) to account for quantifier movement (QM), of which NegShift is a subset under their analyses. QM is subject to an "Anti-Holmberg Effect" or an "Inverse Holmberg Effect". As previously discussed above Holmberg's Generalization stipulates that OS can only apply if the verb has undergone movement from V-to-T-to-C. The Anti-Holmberg Effect explains that only when the verb remains in situ can we have QM, which is the result of the ordering operations between the different phases being in agreement.

In order to account for OS, Fox & Pesetsky propose that the during the spell-out of the VP spell-out domain the V is the leftmost element in its domain[4] and at which point the ordering restrictions are in place which state that the V must precede the O. At this point the V moves to T and then to C which results in the object being free to move to its higher position because the order that existed at the VP domain continues to hold at the CP spell-out domain.

(49) OS and string-vacuous Neg-Shift

a. [$_{CP}$ S b1V … [$_{NegP}$ A1O adv [$_{VP}$ b2t$_{v}$ A2t$_{o}$]]] [angle=90]->A2A1 [angle=-90,linestyle=dashed]->b2b1

b. VP Ordering: **V>O**

[4]The position of the V at the left-edge of the phase could be due to the movement of V to *v* in which case it is actually the *v*P that acts as the spell-out domain not the VP.

CP Ordering: S>V, **V>O**, O>adv, adv>VP

In the case of NegShift, where it is able to shift across various phonological material, it is proposed that the NI first moves to the left edge of the VP before spell-out of that domain. Once that domain is spelled-out the NI is free to shift to its position outside of the VP, in the case of (50) this is to NegP.

(50) NegShift when V is in-situ.

a. [$_{CP}$ S aux … [$_{NegP}$ A1O [$_{VP}$ A2t$_{o}$ V A3t$_{o}$]]] [angle=90]->A3A2 [angle=90]->A2A1

b. VP Ordering: **O>V**
CP Ordering: S>V, aux>O, O>adv, adv>VP ⟶ **O>V**

As part of my QP, I will be providing an alternative account using cyclic linearization and compare it against the account I proposal in §4.

8 Next steps

As previously mentioned, I plan on investigating the prosodic nature of NegShift I, additionally, have been considering the different accounts that have been given for both OS and NegShift with an eye on seeing which account is able to provide the most sensible explanation for the shifting of "light" NIs to aid me in presenting my own theoretical analysis of the NegShift.

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