Microvariation in object positions: Negative Shift in Scandinavian

Eva Engels

In the Scandinavian languages, sentential negation must be licensed in Spec–head relation
in the IP-domain, necessitating leftward movement of negative objects, Negative Shift
(NegS). While string-vacuous NegS is possible in all Scandinavian varieties, there is a
fair amount of cross-linguistic variation in non-string-vacuous NegS. In particular, the
varieties contrast in which constituents can be crossed by NegS and whether or not
crossing of a certain constituent requires the presence of an intervening verb. The paper
presents the complex variation as to the distribution of negative objects in Scandinavian,
using data from different sources, and outlines an analysis within Fox & Pesetsky's (2003,
2005a, b) cyclic linearization model, which accounts for this variation by differences in
the availability of the intermediate positions non-string-vacuous movement is forced to
proceed through.

Eva Engels, Aarhus University, Department of Language, Literature and Culture, Jens Chr. Skous
Vej 5, DK-8000 Aarhus, Denmark. eva.engels@hum.au.dk

1. INTRODUCTION

As in English, illustrated in (1), there are two ways of formulating a negative
sentence in the Scandinavian languages, either with a negation marker and an
indefinite quantifier, shown in (2a), or with a negative object, shown in (2b). The
example in (2) illustrates this for Danish; the same alternation is found in the other
Scandinavian languages. (Where necessary, in numbered examples in this paper,
underline is used to highlight negative elements such as negation marker plus
indefinite object or negative object, and bold is used to highlight constituents crossed
by Negative Shift.)

(1) a. Peter did<u>n't</u> read <u>any books</u>.
    b. Peter   read <u>no books</u>.

(2) a. Per læste måske <u>ikke</u> <u>nogen bøger</u>.   *Danish*
         Per read   maybe not   any books
     b. Per læste måske <u>ingen bøger</u>.
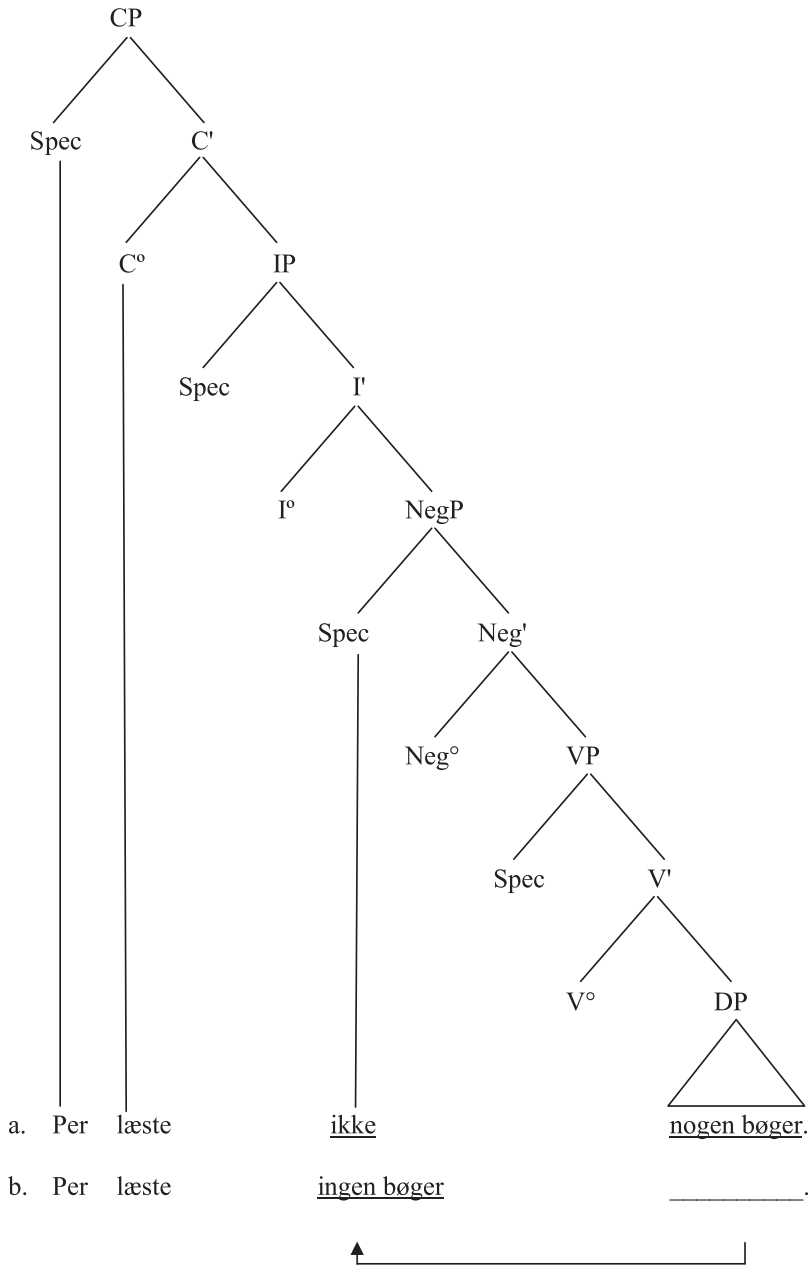   *Per read   maybe no books*

The paper focuses on the latter construction and investigates the variation across the Scandinavian languages as to the distribution of negative objects.

In the canonical object position, an object occurs in its VP-internal base position to the right of a non-finite main verb, as illustrated in (3a). Negative objects are peculiar as they cannot occur in this position under a sentential negation reading in Scandinavian. As shown in (3b), a negative object cannot follow a non-finite main verb.[1]

(3) a. Per har måske <u>ikke</u> [$_{VP}$ læst <u>nogen bøger</u>].   *Danish*
         Per has maybe not   read any books
     b. *Per har måske   [$_{VP}$ læst <u>ingen bøger</u>].
         Per has maybe   read no books

Given that the negative object is merged inside VP, where thematic structure is encoded, the above data suggest that it undergoes leftward movement to the IP domain, the locus of grammatical information such as e.g. subject–predicate relation, tense and negative polarity. This movement operation is referred to as NEGATIVE SHIFT (NegS); see also K. K. Christensen (1986, 1987), Rögnvaldsson (1987), Jónsson (1996), Svenonius (2000, 2002), and K. R. Christensen (2005). NegS is driven by the need for feature checking: The uninterpretable feature [+NEG] carried by the negative object must be licensed in Spec–head relation with the interpretable negative feature in Neg° (see NEG-criterion, Haegeman & Zanuttini 1991; Haegeman 1995). This is illustrated in (4). (The *ikke* ... *nogen* variant does not necessitate object movement; the negation marker *ikke* merged in SpecNegP licenses [+NEG].)

(4)

```
                        CP
                       /  \
                    Spec   C'
                     |    /  \
                     |   C°   IP
                     |   |   /  \
                     |   | Spec  I'
                     |   |      /  \
                     |   |     I°  NegP
                     |   |        /   \
                     |   |     Spec   Neg'
                     |   |      |    /   \
                     |   |      |  Neg°   VP
                     |   |      |       /   \
                     |   |      |     Spec   V'
                     |   |      |          /  \
                     |   |      |         V°   DP
                     |   |      |              /\
                     |   |      |             /__\
   a.  Per   læste        ikke              nogen bøger.

   b.  Per   læste    ingen bøger          _____.
```

While string-vacuous NegS as in (2b)/(4b) is possible in all Scandinavian varieties, there is a considerable amount of cross-linguistic variation as to non-string-vacuous NegS. Specifically, the varieties contrast in (i) which constituents may be crossed by NegS, and (ii) whether crossing of a certain constituent requires the presence of a main verb *in situ*. This will be illustrated by data from different sources such as corpora, web searches, relevant linguistic literature and acceptability judgments. In particular, the data given in the examples and summarized in the tables below originate from the literature for Icelandic and for different styles of Mainland Scandinavian, referred to as Scandinavian 1 (formal styles) and Scandinavian 2 (colloquial styles), from field work for West Jutlandic and Faroese and from data collections among fellow linguists for Norwegian, Danish and Swedish, referred to as NoL, DaL and SwL, respectively – unless indicated otherwise.[2,3]

Section 2 presents cross-linguistic variation in non-string-vacuous NegS in Scandinavian in detail. NegS across a verb, indirect object, preposition, and infinitive are discussed in Sections 2.1–2.4, respectively, showing that neither the intervening elements (main verb/indirect object/preposition/infinitive) nor the base position of the negative phrase (as complement of transitive verb/ditransitive verb/preposition/infinitival verb) nor its target position (to the left/right of the matrix main verb) may capture the distributional patterns of negative objects by themselves.

Section 3 sketches an analysis of NegS within Fox & Pesetsky's (2003, 2005a, b) cyclic linearization model, in which non-string-vacuous movement is forced to proceed through intermediate positions. It will be argued that the cross-linguistic variation observed with non-string-vacuous NegS can be accounted for by differences in the availability of these intermediate positions, which is assumed to depend on a mechanism of feature transmission. The analysis is set out in detail in Engels (to appear). Section 4 summarizes the results.

Expanding the empirical basis of language varieties where NegS does not take place, the present paper provides a reader-friendly account which gives access to the intricacy of the data; thus, the paper should be of interest also to those readers who are not concerned with the theoretical details of the analysis.

2. NON-STRING-VACUOUS NEGATIVE SHIFT

2.1 *NegS across a verb* in situ

If the verb has undergone V°-to-I°-to-C° movement, NegS of a direct object is permitted in all Scandinavian varieties (Ic = Icelandic, Fa = Faroese, Da = Danish, Sw = Swedish, No = Norwegian); see (5).

(5) a. Ég   sagði   <u>ekkert</u>   _____ _____.   *Ic*
    b. Eg   segði   <u>einki</u>   _____ _____.   *Fa*
    c. Jeg sagde   <u>ingenting</u> _____ _____.   *Da*

	d.	Jag	sa	ingenting	_____	_____.		*Sw*
	e.	Jeg	sa	ingenting	_____	_____.		*No*
		I	*said*	*nothing*				

However, NegS across a verb *in situ* is subject to cross-linguistic variation. In the Insular Scandinavian languages, a negative object may occur to the left of a non-finite verb *in situ*; see (6).

(6)	a.	Ég	hef	<u>engan</u>	**séð**	_____.	*Ic*
		I	*have*	*nobody*	*seen*		(Rögnvaldsson 1987:37)
	b.	Petur	hevur	<u>einki</u>	**sagt**	_____.	*Fa*
		Petur	*has*	*nothing*	*said*		

For the Mainland Scandinavian languages, in contrast, NegS across a verb is usually claimed in the literature to be stylistically marked (see K. K. Christensen 1986, Faarlund, Lie & Vannebo 1997 and Svenonius 2002 on Norwegian; Holmes & Hinchliffe 2003 on Swedish; K. R. Christensen 2005 on Danish). It is found in literary or formal styles, referred to as Scandinavian 1 (Scan1) by K. R. Christensen (2005), illustrated in (7a), but is ungrammatical in colloquial speech, referred to as Scandinavian 2 (Scan2), illustrated in (7b). Since failure to undergo NegS results in ungrammaticality, (3b), the variant *ikke . . . nogen* 'not . . . any', which is always acceptable, must be used in case NegS is blocked, as is shown in (8).[4]

(7)	a.	Han	har	<u>ingen bøger</u>	**læst**	_____.	*Scan1*
	b.	*Han	har	<u>ingen bøger</u>	**læst**	_____.	*Scan2*
		he	*has*	*no books*	*read*		(K. R. Christensen 2005:125)
(8)		Han	har	<u>ikke</u>	**læst**	nogen bøger.	*Scan1/Scan2*
		he	*has*	*not*	*read*	*any books*	

However, data from various sources point to the conclusion that NegS across a verb *in situ* is not only a matter of style but also subject to dialectal and inter-speaker variation in Mainland Scandinavian. Thelander (1980) observes differences between Northern (Västerbotten, Umeå) and Southern Swedish (Eskilstuna, Örebro) in the distribution of negative objects. Moreover, in a dialect study on West Jutlandic (WJ), 15 out of my 16 informants judged NegS across a verb *in situ* as unmarked. In contrast, the vast majority of my Norwegian informants – 11 out of 12 linguists and linguistics students at the University of Oslo from different regions of Norway, referred to as Norwegian linguists (NoL) below – did not accept NegS across a verb *in situ* at all, not even as formal style.

In addition, in the *BySoc Corpus* of spoken Danish (http://bysoc.dyndns.org/index.cgi?EeNnGg), 7% (or 8 out of 114) of the matches on the lexical items *ingenting/intet* 'nothing' are clause-medial objects preceding a verb *in situ*, indicating that the construction in (7a) is in fact used in spoken language. Furthermore, a Google blog search (Google web for Faroese) on clauses that include one of the frequent verbs

Finland Swedish (Caroline Sandström, p.c.). Instead, like in Standard Swedish, licensing of sentential negation must be carried out by overt NegS or use of the variant *ikke . . . nogen*; see (10).

(9) a. Jag har **haft** <u>ingenting</u> att skaffa med den saken.   *FS around 1900*
        I have had nothing to do with this affair
   b. Han hade **haft** <u>ingen aning</u> om hela saken.
        he had had no knowledge about the whole case   (Bergroth 1917:173)

(10) a. Jag har <u>ingenting</u> **haft**   att skaffa med den
        I have nothing had to do with this
        saken.   *present-day FS*
        affair
   b. Jag har <u>inte</u>   **haft** <u>någonting</u> att skaffa med den saken.
        I have not had anything to do with this affair
                                      (Caroline Sandström, p.c.)

However, as pointed out to me by Caroline Sandström (p.c.), an *ingen*-object may appear *in situ* in the presence of a VP-external negation marker in the Sibbo dialect of Finland Swedish (Eastern Nyland). The sentence in (11) gives rise to a negative concord reading 'I haven't had anything to do with this affair'.[7]

(11) Jag har <u>inte</u> **haft** <u>ingenting</u> att skaffa med den saken.   *Sibbo*
     I have not had nothing to do with this affair
                                     (Caroline Sandström, p.c.)

Likewise, VP-internal occurrence of an *ingen*-object is possible in Övdalian (Öv) if the negation marker *it* 'not' is present, as is shown in (12). In addition, the object may undergo NegS. In this case, co-occurrence of *it* is optional, as shown by the example in (13); see Garbacz (2008).

(12) a. *Ig ar   si'tt <u>inggan</u>.   *Öv*
   b. Ig ar <u>it</u>   si'tt <u>inggan</u>.
        I have not seen no one   (Garbacz 2008:198)

(13) a. Ig ar   <u>inggan</u> **si'tt** _____.   *Öv*
   b. Ig ar <u>it</u>   <u>inggan</u> **si'tt** _____.
        I have not no one seen   (Garbacz 2008:198)

Given that sentential negation is expressed by *it* in NegP, which licenses *in situ* occurrence of the *ingen*-object in (12b), the question arises why the object may optionally undergo NegS in the presence of *it* at all, as in (13b). In other words, the acceptability of *in situ* occurrence and the negative concord reading seem to indicate that the *ingen*-object itself does not have any negative impact in the presence of a VP-external negation marker. This, in turn, gives rise to doubts regarding the trigger for optional NegS. These issues are connected to the question of how negative concord is to be analyzed, which cannot be discussed here due to space limitations (but see Haegeman & Zanuttini 1991, 1996; Haegeman 1995; Zeijlstra 2004; Giannakidou 2005).

Summing up, this section has shown that there is cross-linguistic and diachronic variation in the distribution of negative objects. While a negative object stays *in situ* in English and former stages of Finland Swedish, sentential negation must be overtly licensed in the IP-domain in present-day Scandinavian: The negative object must undergo movement to NegP, where its NEG-feature is checked. While an intervening verb blocks NegS for the Norwegian linguists (NoL) and colloquial styles of Scandinavian (Scan 2), NegS across a verb *in situ* is possible in the other Scandinavian varieties under consideration. As discussed in the following section, NegS across an indirect object even requires the presence of a main verb *in situ*.

2.2 NegS across an indirect object

In a double object construction, an indirect object (IO) precedes a direct object (DO), as illustrated in (14).

(14) a. Jeg har lånt børnene mange bøger. *Da*
     I   have lent children.the many books
    b. *Jeg har lånt mange bøger børnene.

NegS of the DO across the IO is possible in those and only those varieties which permit NegS across a verb *in situ*. In Scandinavian 2 and for my Norwegian informants, who do not accept NegS across a verb *in situ*, NegS across an IO is not grammatical either; see (15). In Icelandic, Faroese, West Jutlandic, and Scandinavian 1, in contrast, it is possible; see (16).

(15) *Jeg har <u>ingen bøker</u> **lånt barna** _____. *NoL/Scan2*
     I   have   no books   lent children.the

(16) a. Jón   hefur <u>ekkert</u>   **sagt Sveini** _____. *Ic*
       Jón   has   nothing   said Sveinn   (Rögnvaldsson 1987:46)
    b. Petur hevur <u>einki</u>   **givið Mariu** _____. *Fa*
       Peter has   nothing   given Mariu
    c. Jeg   har   <u>ingen bøger</u> **lånt børnene** _____. *WJ/Scan1*
       I   have no books   lent children.the

However, NegS of the DO across the IO gives rise to a so-called INVERSE HOLMBERG EFFECT (Fox & Pesetsky 2005a): It is acceptable if the main verb stays *in situ*, as in (16), but it is ungrammatical if the main verb undergoes leftward movement as well, as in (17).[8,9]

(17) a. *Jón   sagði <u>ekkert</u>   **Sveini** _____. *Ic*
       Jón   said nothing   Sveinn   (Rögnvaldsson 1987:46)
    b. *Petur gav   <u>einki</u>   **Mariu** ____. *Fa*
       Petur gave nothing   Maria
    c. *Jeg   lånte <u>ingen bøger</u> **børnene** _____. *WJ/Scan1*
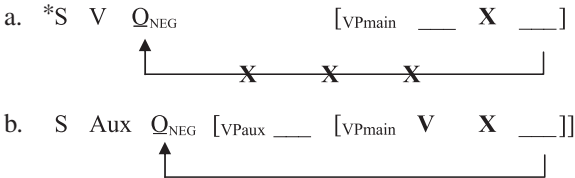   I   lent no books   children.the

NegS across		WJ/Ic/Fa/Scan1	Scan2/NoL
ø (= string-vacuous)		+	+
V		+	–
IO	verb *in situ*	+	–
	verb moved	–	–

Table 3. NegS across verb and/or indirect object.

Given that NegS across an IO presupposes the presence of a verb *in situ*, it is not surprising that it is only possible in varieties which permit NegS across a verb in the first place. The observed patterns are summarized in Table 3.

The Inverse Holmberg Effect observed with NegS across an IO points to the conclusion that it is not the intervening constituent itself which blocks NegS, contrary to what e.g. K. R. Christensen (2005) suggests. A verb *in situ* may cancel out the blocking effect: The negative object may move across the IO if it also crosses the main verb. By the same reasoning, the base position of the object cannot be crucial for the availability of NegS either.

(18) *Inverse Holmberg Effect*

    a.   *S   V O_{NEG} [$_{VPmain}$ ___   **X**   ___]

                             X   **X**   **X**

    b.   S   Aux O_{NEG} [$_{VPaux}$ ___   [$_{VPmain}$ **V**   **X**   ___]]

At first glance, the fact that an intervening main verb cancels out the blocking effect would seem to indicate that the Inverse Holmberg Effect has to do with the target position of NegS to the left/right of the main verb (see Svenonius 2000 for an analysis along these lines). Apart from cross-linguistic variation, however, there is also variation across constructions as to the dependence of NegS on verb position, discussed in the following sections. This suggests that the target position to the left/right of the main verb itself cannot be decisive for the acceptability of NegS either.

2.3 NegS across a preposition

According to K. R. Christensen (2005), NegS of the complement of a preposition is not permitted in Mainland Scandinavian at all, neither in formal (Scandinavian 1) nor in colloquial style (Scandinavian 2).

(19) a. *Jeg har   ingen   **peget**   på ____.   *Scan1/Scan2*
         I   have   nobody pointed   at
     b. *Jeg pegede   ingen   **på** ____.
         I   pointed nobody   at

<div align="right">(K. R. Christensen 2005:131)</div>

However, my Danish informants, six linguists at the University of Aarhus from different regions of Denmark, referred to as Danish linguists (DaL) below, showed an Inverse Holmberg Effect with NegS of a prepositional complement: They marginally accepted NegS across a preposition if the main verb occurred *in situ*, as in (20a), but rejected NegS just across the preposition, as in (20b). The same pattern was displayed by two of my six Swedish informants (SwL1) – linguists at the University of Gothenburg from different regions of Sweden. In contrast, the other four informants (SwL2) rejected NegS across a preposition altogether, in line with (19), although they accepted NegS across a verb (see (7a) above), reflecting the Scandinavian 1 pattern.

(20) a. ?Jeg har   ingen   **peget**   på ____.   *DaL*
         I   have   nobody pointed   at
     b. *Jeg pegede   ingen   **på** ____.
         I   pointed nobody   at

(21) a. Denna veckan har   Ida ingen   **pratat** med ____.   *SwL*
         this   week   has   Ida nobody spoken   with
     b. *I går   pratade Ida ingen   **med** ____.
         yesterday   spoke   Ida nobody   with

Likewise in Faroese, NegS across a preposition was judged acceptable in the presence of a verb *in situ*, see (22a), whereas it was rejected by the majority of my informants (25 out of 34) if the main verb had undergone finite verb movement, as in (22b); see also Engels (2009).

(22) a. Í dag   hevur Petur ongan   **tosað** við ____.   *Fa*
         today has   Petur nobody spoken   with
     b. *Í dag tosaði Petur ongan   **við** ____.
         today spoke Petur nobody   with

Moreover, Svenonius (2000) claims that NegS of the complement of a preposition in Icelandic improves if the movement also crosses the verb, though this contrast is not that strong, (23b) is degraded but not ungrammatical.[10]

(23) a. Ég   hef   engan   **talað** við ____.   *Ic*
         I   have   nobody spoken   with
     b. ?Ég talaði engan   **við** ____.
         I   spoke nobody   with   (Svenonius 2000:272)

NegS across		WJ/Ic	Fa/DaL/SwL1	Scan1/SwL2	Scan2/NoL
ø (= string-vacuous)		+	+	+	+
V		+	+	+	–
IO	verb *in situ*	+	+	+	–
	verb moved	–	–	–	–
P	verb *in situ*	+	+	–	–
	verb moved	+	–	–	–

Table 4. NegS across verb, indirect object or preposition.

Finally, in West Jutlandic, NegS just across the preposition is not even marked. NegS of the complement of the preposition is possible, independent of verb position.

(24) a. Måske   har   hun <u>ingen</u> **snakket med** ____.   *WJ*
       maybe   *has*   *she*   *nobody spoken*   *with*
    b. I går   snakkede hun <u>ingen</u>   **med** ____.
       yesterday spoke   *she*   *nobody*   *with*

Summing up, there is not only cross-linguistic variation as to which constituent can be crossed by NegS (verb, IO, preposition) but also variation as to whether crossing of a certain constituent requires the presence of a main verb *in situ* (see Table 4). While NegS across an IO presupposes the presence of a main verb *in situ*, NegS across a preposition may be grammatical or ungrammatical independent of verb position.

2.4 NegS out of an infinitival clause

NegS out of a control infinitive is only acceptable in Icelandic if it also crosses the matrix main verb (see Svenonius 2000).[11]

(25) a. Hún   hefur   <u>engan</u> **lofað**   **að kyssa** ___.   *Ic*
       she   *has*   *nobody promised to kiss*
       'She hasn't promised to kiss anybody.'
    b. *Hún lofaði   <u>engan</u>   **að kyssa** ___, var það nokkuð?
       she   *promised nobody*   *to kiss*   *was it rather*
       'She didn't promise to kiss anybody, did she?'   (Hlíf Árnadóttir, p.c.)

An Inverse Holmberg Effect was also displayed by the Swedish linguists (SwL) as well as by some of the Danish linguists (DaL1) and West Jutlandic speakers (WJ2):[12]

(26) a. ?Ida har <u>inga tårta</u> **lovat**   **att köpa** _____.   *SwL*
       Ida has no cakes promised to buy
       'Ida hasn't promised to buy any cakes.'

NegS across		WJ1	WJ2/Ic	Fa	DaL1/ SwL1	DaL2	SwL2	Scan1	Scan2/ NoL
ø (= string-vacuous)		+	+	+	+	+	+	+	+
V		+	+	+	+	+	+	+	–
IO	verb *in situ*	+	+	+	+	+	+	+	–
	verb moved	–	–	–	–	–	–	–	–
P	verb *in situ*	+	+	+	+	+	–	–	–
	verb moved	+	+	–	–	–	–	–	–
Infin	matrix main verb *in situ*	+	+	+	+	–	+	–	–
	matr. main verb moved	+	–	+	–	–	–	–	–

Table 5. NegS across verb, indirect object, preposition or infinitive.

Hence, as with NegS across a preposition, there is cross-linguistic variation as to whether or not NegS out of a control infinitive is possible at all and, if so, whether it depends on the position of the matrix main verb. In addition, Table 5 shows that there is variation across constructions with regard to these parameters. For instance, both Faroese and the Danish linguists display an Inverse Holmberg Effect with NegS across a preposition. In contrast, NegS out of an infinitival clause gives rise to an Inverse Holmberg Effect for the Danish linguists 1 whereas it is permitted in Faroese and prohibited for the Danish linguists 2, irrespective of verb position. These facts point to the conclusion that the target position to the left/right of the matrix main verb cannot be decisive for the availability of NegS as such.

3. CYCLIC LINEARIZATION OF NEGATIVE OBJECTS

It was stated in Section 1 above that NegS takes place to license a sentential negation reading, which is unavailable *in situ*: The uninterpretable NEG-feature carried by the negative object needs to be checked in Spec–head relation with Neg°. Hence, NegS would seem to be semantically motivated. However, it is subject to certain syntactic constraints, which apply to a varying extent in the Scandinavian varieties: NegS may be blocked if it were to cross intervening constituents. While string-vacuous NegS is possible in all varieties, non-string-vacuous NegS displays a considerable amount of variation (see Section 2 above). In particular, the language varieties differ as to which constituents can be crossed (verb, IO, preposition, infinitive) and whether or not NegS across a certain constituent depends on the presence of a verb *in situ*.[13]

As discussed in Section 2, the Inverse Holmberg Effect observed with NegS across an IO, NegS across a preposition, and NegS out of an infinitival clause in certain varieties points to the conclusion that it cannot be the intervening element itself (i.e. IO, preposition, or infinitive) that blocks movement of the negative object: An additional intervening verb makes NegS possible (see (18) above). Moreover, asymmetries as to the emergence of an Inverse Holmberg Effect with NegS across a preposition and NegS out of an infinitival clause in a given variety indicate that the target position to the left/right of the main verb cannot account for the availability of NegS, either.

In Engels (2011), I put forward an approach to NegS in Scandinavian within Fox & Pesetsky's (2003, 2005a, b) cyclic linearization model. Assuming that derivations proceed bottom–up, Fox & Pesetsky suggest that the mapping between syntax and phonology (i.e., Spell-out) takes place at various points in the course of derivation (on multiple Spell-out see also Chomsky 2000, 2001). The material in the Spell-out domain D is thereby linearized. The crucial property of Spell-out is that it may only add information about the linearization of a newly constructed Spell-out domain to the information cumulatively produced by previous applications of Spell-out; previously established linearization statements cannot be deleted.

The diagram in (32) illustrates the derivation of string-vacuous NegS under the cyclic linearization approach. At Spell-out of VP, both the verb and its object occur in their base positions and the linearization statement V<O (i.e. 'verb precedes object') is established. When the derivation proceeds, the subject is merged, the negative object moves to SpecNegP, where it licenses [+NEG], and the main verb undergoes finite verb movement. At Spell-out of CP, the new ordering statements added (boldfaced) are consistent with the ones established at VP Spell-out. Though movement takes place, the relative ordering between verb and object is retained and the derivation succeeds.

(32) *String-vacuous NegS (see ex. (5))*
  VP:$[_{VP}$ V O$_{[+NEG]}]$

  Ordering: **V<O**

  CP:$[_{CP}$ S V ... $[_{NegP}$ O$_{[+NEG]}$ ... $[_{VP}$ t$_V$ t$_O]]]$

  Ordering: **S<V**   V<O

  V<O

Non-string-vacuous movement has to proceed successive cyclically through the left edge of Spell-out domains to avoid ordering contradictions, which would impose conflicting requirements on the phonology and thus cause the derivation to fail. This is illustrated for NegS across a verb *in situ* in (33): The object moves to the edge of VP prior to Spell-out. Consequently, the ordering statement O<V is established at VP Spell-out. From this edge position, the object may then move to SpecNegP without giving rise to an ordering contradiction at Spell-out of CP.

(33) *NegS across a verb* in situ (see exx. (6) and (7a))

VP:[$_{VP}$ O$_{[+NEG]}$ V t$_O$]

    Ordering: **O<V**

CP:[$_{CP}$ S Aux ... [$_{NegP}$ O$_{[+NEG]}$ ... [$_{VP}$ t$_O$ V t$_O$]]]

    Ordering: **S<Aux**   O<V

             Aux<O

             O<V

Since non-string-vacuous movement needs to proceed through the edge of Spell-out domains under the cyclic linearization approach, variation as to the applicability of NegS can be accounted for by contrasts in the availability of the left-edge positions, which is considered to depend on feature transmission in Engels (2011). More concretely, Neg° may transmit an uninterpretable copy of its NEG-feature to the head of the relevant Spell-out domain in certain varieties while it is not able to do so in other varieties. Consequently, movement through the Spell-out domain's edge, which is necessary in order to cross intervening material, is permitted or prohibited, respectively. Given that movement is driven by the need for feature checking, movement to the edge position must apply if feature transmission takes place, but cannot apply if feature transmission does not take place.[14] Under the assumption that PPs constitute a Spell-out domain and that control infinitives are CPs and thus also constitute a Spell-out domain, cross-linguistic differences in which constituents may be crossed by NegS (verb/preposition/infinitive) are captured by

differences in which Spell-out domain heads (V°/P°/C°) can receive a feature copy from Neg°.
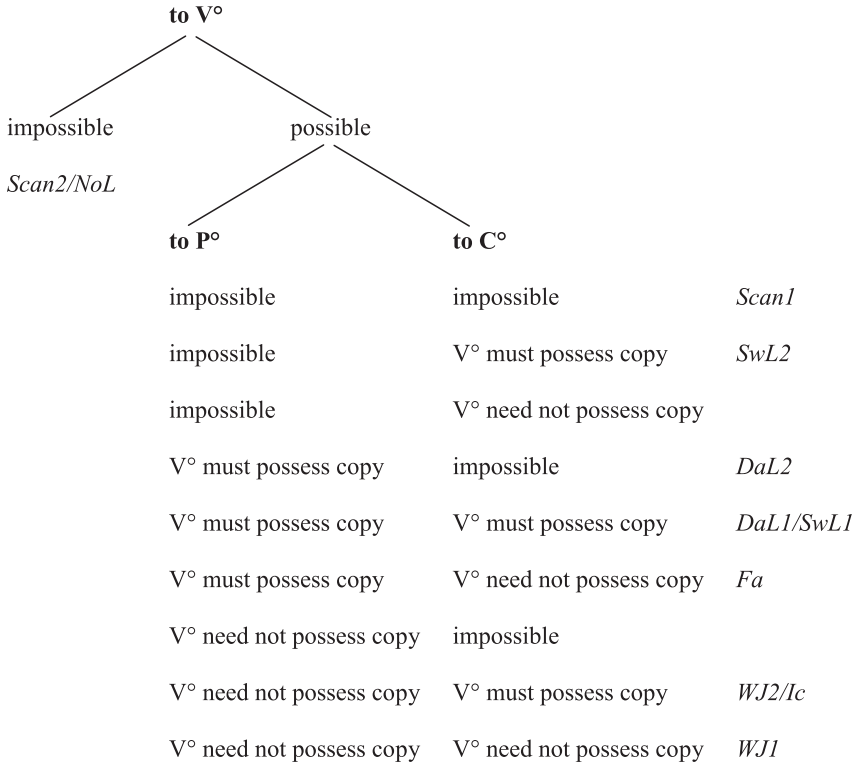
An Inverse Holmberg Effect, whereby movement across a certain constituent is only possible in the presence of a verb *in situ*, emerges if movement must proceed via the edge of VP. This is due to the fact that movement through the edge of VP is only possible in the present analysis if the verb stays *in situ* as it would otherwise result in an ordering contradiction. NegS across an IO must necessarily proceed through the edge of VP because there is no additional Spell-out domain involved: To be linearized to the left of the IO, the negative DO, which follows the IO in base order, must move to the edge of VP. This predicts that NegS across an IO is possible in those and only those varieties where the edge of VP is available, i.e. where NegS across a verb *in situ* is possible, as borne out by the data in Section 2.2. In case of NegS across a preposition and NegS out of an infinitival clause, an Inverse Holmberg Effect arises if feature transmission from Neg° to P° or from Neg° to C° requires that V° possesses a feature copy, too: Neg° transmits an uninterpretable copy of its feature to V°, which in turn transmits a copy to P° or C°. Thus P° or C° may only carry a feature copy if V° does so, too. As a result, NegS via the edge of PP or CP must continue to the edge of VP, predicting that it is only possible if the verb stays *in situ*. In case NegS across a preposition or NegS out of an infinitival clause is independent of verb position, feature transmission from Neg° to P° or C° may proceed with or without V° holding a copy: If V° carries a feature copy, NegS must go through the edge of VP and consequently the verb must stay *in situ* to avoid ordering contradictions; if V° does not carry a feature copy, NegS cannot go through the edge of VP and consequently the verb must move itself. The dependence of NegS on verb position is thus a matter of whether or not it is possible for P° or C° to receive a feature copy without V° possessing one.

In addition, note that NegS across a preposition and NegS out of an infinitival clause may contrast as to their acceptability and their dependence on verb position (see Table 5 above). This indicates that feature transmission to P° and feature transmission to C° are independent of one another. A certain variety may permit feature transmission to P° while prohibiting feature transmission to C°, or vice versa. Likewise, the necessity for V° to carry a feature copy in these cases may vary. Moreover, P° and C° seem to be able to receive a feature copy from Neg° only if V° in principle is, too. First, NegS across a preposition and NegS out of an infinitival clause are only possible in varieties that also permit NegS across a verb *in situ*. Second, they are only possible in the absence of a verb *in situ* if they are also permitted in the presence of a verb *in situ* (i.e. there are no reversed Inverse Holmberg Effects). These facts indicate that all feature transmission to P° and C° is mediated by V°: Only if Neg° can transmit a feature copy to V° can P° or C° receive one from V°. In certain varieties this is only possible if V° keeps a copy for itself, giving rise to an Inverse Holmberg Effect, while in other varieties V° may pass on the feature copy

without holding one itself. Under these assumptions, the ten distributional patterns in (34) are predicted, eight of which are identified here. As this investigation of NegS in Scandinavian is far from being exhaustive, the missing two patterns should not be ruled out on principled grounds.

(34) **Feature transmission from Neg°**

to V°

impossible   possible

Scan2/NoL

to P°	**to C°**	
impossible	impossible	*Scan1*
impossible	V° must possess copy	*SwL2*
impossible	V° need not possess copy	
V° must possess copy	impossible	*DaL2*
V° must possess copy	V° must possess copy	*DaL1/SwL1*
V° must possess copy	V° need not possess copy	*Fa*
V° need not possess copy	impossible	
V° need not possess copy	V° must possess copy	*WJ2/Ic*
V° need not possess copy	V° need not possess copy	*WJ1*

For further details of the analysis the reader is referred to Engels (2011).

4. CONCLUSION

The preceding sections showed that while all Scandinavian varieties have string-vacuous NegS, they vary massively as to non-string-vacuous NegS, concerning in particular which constituent can be crossed by NegS and whether or not crossing depends on the presence of a main verb *in situ*.

(35)   NegS across X

```
                     NegS across X
                    /            \
            impossible          possible
                                /        \
                        requires /      does not require

                        presence of main verb in situ
```
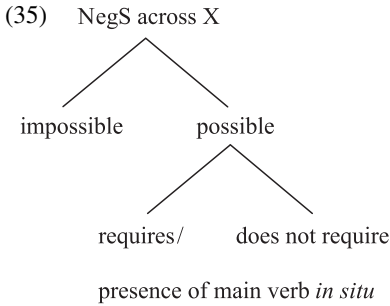
Contrary to the widely held belief, non-string-vacuous NegS in Mainland Scandinavian is not only a matter of style but it is also subject to dialectal and inter-speaker variation, as exhibited by the data presented in Section 2. While colloquial styles of Mainland Scandinavian reported in the literature (Scan 2) and my Norwegian informants (NoL) only permit string-vacuous NegS (i.e. NegS cannot cross any intervening constituent, neither verb nor IO nor preposition nor infinitive), the presence of a main verb *in situ* does not block NegS in formal styles of Mainland Scandinavian reported in the literature (Scan 1), Icelandic, Faroese, West Jutlandic and for the Danish linguists (DaL) and is even required during NegS across an IO (Inverse Holmberg Effect). In contrast, NegS across a preposition and NegS out of an infinitive are not necessarily dependent on the presence of a verb *in situ*; they may be permitted or prohibited, irrespective of the position of the matrix main verb; see Table 5 above.

It was argued that neither the intervening elements (main verb/indirect object/preposition/infinitive) nor the base position of the negative phrase (as complement of transitive/ditransitive verb/preposition/infinitival verb) nor its target position (to the left/right of the matrix main verb) can capture the observed variation by themselves. Under the cyclic linearization approach (Fox & Pesetsky 2003, 2005a, b), non-string-vacuous movement must proceed through the edge of Spell-out domains, whose availability is considered to depend on a mechanism of feature transmission in the present analysis. Only if the head of the relevant Spell-out domain (VP, PP, CP) may receive an uninterpretable feature copy from $Neg°$ is movement via its left-edge position possible. Thus cross-linguistic variation as to which constituents can be crossed by NegS and whether crossing presupposes the presence of a verb *in situ* can be captured by differences in which Spell-out domain heads may receive a feature copy from $Neg°$ and whether feature transmission from $Neg°$ to $P°$ or $C°$ requires $V°$ to possess the feature itself (see Section 3).

ACKNOWLEDGEMENTS

NOTES

1. Occurrence of a negative object in VP-internal position is possible if a narrow scope reading can be constructed; see Svenonius (2002).
2. The West Jutlandic and Faroese data were collected during the NORMS Dialect Workshop in Western Jutland (January 2008) and the NORMS Dialect Workshop in the Faroe Islands (August 2008), respectively. Sixteen Western Jutlandic and 34 Faroese non-linguist informants were asked to read out loud and give acceptability judgments – on a scale from 1 (bad) to 5 (good) – on various negated clauses in a questionnaire. Sentences judged 1 and 2 were considered ungrammatical, those judged 3 marginally possible, and those judged 4 and 5 fully grammatical.
3. The linguist informants were asked to give acceptability judgments (ok, ?, ??, *) on various negated clauses in a questionnaire.
4. Note that NegS applies to both negative pronouns like *ingenting/intet* 'nothing' in (5) and negative DPs like *ingen bøger* 'no books' in (7a) as well as to negative adverbials such as *ingen steder* 'nowhere' (viz. a non-negative place adverbial occurs in clause-final position, (ii)).

(i)	a.	*Jeg	har		truffet	Per	<u>ingen steder</u>.	*Da*
	b.	Jeg	har	<u>ingen steder</u>	truffet	Per	_____.	
		I	*have*	*no places*	*met*	*Per*		

(ii)	a.	Jeg	har		truffet	Per	<u>mange steder</u>.	*Da*
	b.	*Jeg	har	<u>mange steder</u>	truffet	Per	_____.	
		I	*have*	*many places*	*met*	*Per*		

In addition, note that the more complex a negative phrase, the less acceptable NegS, as illustrated in (iii).

(iii)	a.	Jeg	har	<u>intet</u>	hørt.	*Da*
	b.	Jeg	har	<u>intet nyt</u>	hørt.	
	c.	*Jeg	har	<u>intet nyt i sagen</u>	hørt.	
	d.	*Jeg	har	<u>intet nyt i sagen om de stjålne malerier</u>	hørt.	
		I	*have*	*nothing new in case.the about the stolen paintings*	*heard*	

(K. R. Christensen 2005:65)

5. On the basis of the fact that a negative object cannot follow a non-finite verb within VP (see (3b) above), NegS is taken here to be obligatory: This means that NegS takes place even in string-vacuous cases; see (4b). See K. K. Christensen (1986, 1987) and Fox & Pesetsky (2005b:240–242) for an alternative approach according to which an *ingen*-object is licensed under adjacency to sentential negation, making movement of the object unnecessary if the main verb has moved.

6. Checking of the NEG-feature is considered to be carried out by covert movement in case the negative object stays *in situ* (see K. R. Christensen 2005, 2008).

7. Thereby, an additional negation marker to the immediate left of the *ingen*-phrase sometimes emerges, emphasizing negation (Caroline Sandström, p.c.).

(i) Han vill <u>inte</u> se <u>inte</u> <u>ingenting</u>.   *Sibbo*
     he will not see not nothing   (Caroline Sandström, p.c.)

8. Holmberg's generalization, in contrast, states that movement of the main verb must take place for movement of a weak pronoun (Object Shift) to be possible (see Holmberg 1986, 1999).

(i) a. *Jeg læste   ikke   <u>dem</u>.   *Da*
    b. Jeg læste <u>dem</u> ikke   ___.
      I read them not
(ii) a. Jeg har   ikke **læst** <u>dem</u>.   *Da*
     b. *Jeg har <u>dem</u> ikke **læst** ___.
       I have them not read

9. Note that NegS of the DO is compatible with movement of the main verb if the IO undergoes leftward movement as well (e.g. Object Shift). In this case, NegS of the DO is string-vacuous and, accordingly, it is possible even in Scandinavian 2 and for my Norwegian informants.

(i) Studentene lånte oss <u>ingen romaner</u>.   *Scan2/NoL*
      students.the lent us no novels   (K. K. Christensen 1987:4)

10. Depending on the verb–preposition combination, the preposition is stranded or pied-piped in Icelandic; see Jónsson (1996) and Svenonius (2000).

11. Though slightly more marked (possibly for pragmatic reasons), long NegS out of two infinitival clauses is possible as well:

(i) a. Jeg har <u>ingen penge</u> **planlagt**   **at opdrive** ___ . . .   *Da*
     I have no money planned   *to find*
     'I haven't planned to find any money . . .'
   b. Jeg har <u>ingen penge</u>   **prøvet** **at opdrive** ___ . . .
     I have no money   *tried to find*
     'I haven't tried to find any money . . .'
   c. ?Jeg har <u>ingen penge</u> **planlagt** **at prøve at opdrive** ___ . . .
     I have no money planned to try to find
     'I haven't planned to try to find any money . . .'
     . . . til at fortsætte projektet.
     for to continue project.the
     '. . . to continue the project.'   (Henrik Jørgensen, p.c.)

(ii) a. Pétur hefur <u>engu bréfi</u> **lofað** **að svara** ___. *Ic*
   Petur has *no letter* *promised* *to reply*
   'Petur hasn't promised to reply to any letter.'

  b. Pétur hefur <u>engu bréfi</u> **reynt** **að svara** ___.
   Petur has *no letter* *tried* *to reply*
   'Petur hasn't tried to reply to any letter.'

  c. Pétur hefur <u>engu bréfi</u> **lofað** **að reyna** að svara ___.
   Petur has *no letter* *promised to try* *to reply*
   'Petur hasn't promised to try to reply to any letter.'

               (Ásgrímur Angantýsson, p.c.)

Moreover, note that NegS out of a subjunctive clause is possible in Icelandic, too, as is shown in (iii). NegS out of an indicative clause, in contrast, is always ruled out, as shown in (iv) and (v).

(iii) a. Hún hafði <u>ekki</u> viljað að hann gæti keypt <u>neitt</u>. *Ic*
   she had *not* *wanted that he* *could bought something*

  b. Hún hafði <u>ekkert</u> viljað að hann gæti keypt ____.
   she had *nothing wanted that he* *could bought*
         (Gunnar Hrafn Hrafnbjargarson, p.c.)

(iv) a. Hún hefur <u>ekki</u> vitað að hann getur keypt <u>neitt</u>.
   she has *not* *known that he* *can* *bought something*

  b. *Hún hefur <u>ekkert</u> vitað að hann getur keypt ____.
   she has *nothing known that he* *can* *bought*
         (Gunnar Hrafn Hrafnbjargarson, p.c.)

(v) a. Du skal <u>ikke</u> sige at du får <u>nogle penge</u>. *Da*
   you should not *say that you receive some money*

  b. *Du skal <u>ingen penge</u> sige at du får _____.
   you should no money *say that you receive*

12. However, NegS just across the infinitive is not prohibited altogether; it is possible under a narrow scope reading of negation in Danish.

(i) a. Han har lovet <u>ingen kager</u> **at købe** _____. *WJ/DaL*
   he has *promised no cakes* *to buy*
   'He has promised not to buy any cakes.'

  b. Han <u>lovede _____</u> <u>ingen kager</u> **at købe** _____, ikke?
   he *promised* *no cakes* *to buy* *not*
   'He promised not to buy any cakes, didn't he?'

The above data corroborate the hypothesis that it is not the intervening constituent itself which blocks NegS. Instead, it seems to depend on the target position/locality of movement whether NegS may cross just the infinitive.

(ii) a. Han <u>lovede</u>   [_____ [<u>ingen kager</u> **at købe** _____]]
             $\sqrt{WJ1}/\sqrt{WJ2}/\sqrt{DaL1}/\sqrt{DaL2}$

  b. Han <u>lovede</u> <u>ingen kager</u> [_____ [**at købe** _____]]
             $\sqrt{WJ1}/*WJ2/*DaL1/*DaL2$

13. It might be questioned in how far the data from different sources examined here are comparable. For instance, one would expect that it is easier for linguists to determine the

contexts under which NegS can felicitously be used. However, my data show that it is the non-linguist native speakers from Western Jutland who are the most permissive ones, and all the Mainland Scandinavian data I collected (except for the Norwegian linguists) display a higher acceptability of NegS than has been claimed in the linguistic literature even for formal styles of Mainland Scandinavian. On the other hand, it might be argued that the fact that the linguist informants are less permissive than the non-linguist ones results from the fact that they know the relevant literature. But still they deviate from the patterns described in the literature, and crucially they do so in a certain way: They permit NegS across a certain constituent more often, sometimes displaying an Inverse Holmberg Effect. This is not meant to dispute that there are varieties that make a distinction between colloquial and formal styles in the way described in the literature; rather, the present investigation points to the conclusion that there is more variability as regards NegS than assumed earlier.

14. Note that feature transmission is optional at best: String-vacuous NegS is acceptable in all varieties and does not involve movement via any edge position; see (32) above.

REFERENCES

Allan, Robin & Michael Barnes (eds.). 1987. *The Seventh Biennial Conference of Teachers of Scandinavian Studies in Great Britain and Northern Ireland*. London: Department of Scandinavian Studies, University College London.

Bergroth, Hugo. 1917. *Finlandssvenska. Handledning till Undvikande av Provinsialismer i Tal och Skrift* [Finland Swedish: A guide to avoiding provincialisms in speech and writing]. Helsinki: Holger Schildts Förlag.

Chomsky, Noam. 2000. Minimalist inquiries. In Roger Martin, David Michaels & Juan Uriagereka (eds.), *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik*, 89–156. Cambridge, MA: MIT Press.

Chomsky, Noam. 2001. Derivation by phase. In Michael Kenstowicz (ed.), *Ken Hale: A Life in Language*, 1–52. Cambridge, MA: MIT Press.

Christensen, Ken Ramshøj. 2005. *Interfaces: Negation – Syntax – Brain*. Ph.D. dissertation, University of Aarhus.

Christensen, Ken Ramshøj. 2008. NEG-shift, licensing, and repair strategies. *Studia Linguistica* 62(2), 182–223.

Christensen, Kristi Koch. 1986. Norwegian *ingen*: A case of post-syntactic lexicalization. In Östen Dahl & Anders Holmberg (eds.), *Scandinavian Syntax*, 21–35. Stockholm: Institute of Linguistics, University of Stockholm.

Christensen, Kristi Koch. 1987. Modern Norwegian *ingen* and the ghost of an Old Norse particle. In Allan & Barnes (eds.), 1–17.

Christensen, Kristi Koch & Knut Tarald Taraldsen. 1989. Expletive chain formation and past participle agreement in Scandinavian dialects. In Paola Benincà (ed.), *Dialect Variation and the Theory of Grammar*, 53–83. Dordrecht: Foris.

Engels, Eva. 2009. Preposition stranding versus pied-piping: Negative Shift of prepositional complements in dialects of Faroese. In Peter Svenonius, Kristine Bentzen, Caroline Heycock, Jógvan í Lon Jacobsen, Jannne Bondi Johannessen, Jeffrey K. Parrott, Tania E. Strahan & Øystein A. Vangsnes (eds.), *Nordlyd 36.2: NORMS Papers on Faroese*, 186–207. Tromsø: University of Tromsø.

Engels, Eva. 2011. Scandinavian negative indefinites and cyclic linearization. *Syntax*. doi:10.1111/j.1467-9612.2011.00161.x. Published by Wiley Blackwell, 2 August 2011.

Faarlund, Jan Terje, Svein Lie & Kjell Ivar Vannebo. 1997. *Norsk referansegrammatikk* [Norwegian reference grammar]. Oslo: Universitetsforlaget.

Fox, Danny & David Pesetsky. 2003. Cyclic linearization and the typology of movement. Ms., MIT.

Fox, Danny & David Pesetsky. 2005a. Cyclic linearization of syntactic structure. *Theoretical Linguistics* 31(1–2), 1–46.

Fox, Danny & David Pesetsky. 2005b. Cyclic linearization and its interaction with other aspects of grammar: A reply. *Theoretical Linguistics* 31(1–2), 235–262.

Garbacz, Piotr. 2008. Negationens syntax i älvdalskan [The syntax of negation in Övdalian]. In Piotr Bukowski, Grażyna Pietrzak-Porwisz & Iwona Kowal (eds.), *Perspektiv på svenska språket och litteraturen* [Perspectives on Swedish language and literature], 193–202. Kraków: Wydawnictwo Uniwersytetu Jagiellońskigo.

Giannakidou, Anastasia. 2005. N-words and negative concord. In Martin Everaert, Henk van Riemsdijk, Rob Goedemans & Bart Hollebrandse (eds.), *The Linguistics Companion*, vol. 3, 327–391. Oxford: Blackwell.

Haegeman, Liliane. 1995. *The Syntax of Negation*. Cambridge: Cambridge University Press.

Haegeman, Liliane & Raffaella Zanuttini. 1991. Negative heads and the Neg Criterion. *The Linguistic Review* 8(2/4), 233–251.

Haegeman, Liliane & Raffaella Zanuttini. 1996. Negative concord in West Flemish. In Adriana Belletti & Luigi Rizzi (eds.), *Parameters and Functional Heads*, 117–179. New York: Oxford University Press.

Holmberg, Anders. 1986. *Word Order and Syntactic Features in the Scandinavian Languages and English*. Ph.D. dissertation, University of Stockholm.

Holmberg, Anders. 1999. Remarks on Holmberg's generalization. *Studia Linguistica* 53(1), 1–39.

Holmes, Philip & Ian Hinchliffe. 2003. *Swedish: A Comprehensive Grammar*. London: Routledge.

Jónsson, Johannes Gísli. 1996. *Clausal Architecture and Case in Icelandic*. Ph.D. dissertation, University of Massachusetts, Amherst.

Rögnvaldsson, Eiríkur. 1987. OV word order in Icelandic. In Allan & Barnes (eds.), 33–49.

Svenonius, Peter. 2000. Quantifier movement in Icelandic. In Peter Svenonius (ed.), *The Derivation of VO and OV*, 255–292. Amsterdam: John Benjamins.

Svenonius, Peter. 2002. Strains of negation in Norwegian. *Working Papers in Scandinavian Syntax* 69, 121–146.

Thelander, Mats. 1980. Någonting om bl.a. *ingenting* [Something about *nothing* among other things]. In Valter Jansson, Bengt Nordberg & Mats Thelander (eds.), *Ord och struktur. Studier i nyare svenska tillägnade Gun Widmark den 31 juli 1980* [Word and structure: Studies in Modern Swedish, in honor of Gun Widmark, 31 July 1980], 323–341. Uppsala: Lundequistska bokhandeln.

Zeijlstra, Hedde. 2004. *Sentential Negation and Negative Concord*. Utrecht: LOT Publications.