Preposition stranding versus pied-piping: Negative Shift of prepositional complements in dialects of Faroese

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1 Negative Shift and cyclic linearization

In the Scandinavian languages, sentential negation must be licensed outside VP. A negative object cannot occur in its base position to the right of a non-finite main verb, (1). This indicates that negative objects must undergo leftward movement out of VP, (2), referred to as Negative Shift, henceforth NegS (see also K. K. Christensen 1986, 1987, Rögnvaldsson 1987, Jónsson 1996, Svenonius 2000, 2002, K. R. Christensen 2005). In the present analysis, NegS is taken to target the specifier position of NegP, licensing [+NEG] in Spec-head relation (cf. the NEG-criterion, Haegeman & Zanuttini 1991, Haegeman 1995).

(1) a. Í dag hevur Petur [VP sagt nakað] Faroese
today has Peter said anything

   b. *Í dag hevur Petur [VP sagt einki] nothing
      today has Peter said nothing

(2) a. Í gjár segði Petur [NegP ikki Neg° [VP ___ V nakað]] Faroese
      yesterday said Peter not anything

   b. Í gjár segði Petur [NegP einki Neg° [VP ___ V ____0]]
      yesterday said Peter nothing

While string-vacuous NegS as in (2)b is possible in all Scandinavian varieties, there is a considerable amount of cross-linguistic variation as to non-string-vacuous NegS. In particular, the varieties contrast in which constituents can be crossed by NegS and whether or not crossing requires the presence of a main verb in situ; see Engels (to appear, submitted-a).

In Engels (submitted-a), I argue that the variation observed with Scandinavian NegS suggests an analysis within Fox & Pesetsky's (2003, 2005) cyclic linearization model. Assuming that derivations proceed "bottom-to-top", Fox & Pesetsky (2003, 2005), henceforth F&P, propose that the mapping between syntax and phonology, i.e. Spell-out, takes place at various points in the course of derivation, including at VP and at CP. Thereby, the material in
the Spell-out domain \( D \) is 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 changed or deleted, accounting for successive cyclic movement and order preservation effects.

(3) 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 \( V < O \) (= verb precedes object) is established. When the derivation proceeds, the negative object moves to SpecNegP, where it licenses \([+\text{NEG}]\) 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. The relative ordering between verb and object is maintained.

(3) **string-vacuous NegS; ex. (2)b**

a. Í gjár segði Petur einki \( V \) \( O \).  
   yesterday said Peter nothing

b. VP: \([VP V O_{[\text{+NEG}]})\]
   Ordering: \( V < O \)

   \[
   \begin{array}{c}
   \text{CP: } [CP \text{ Adv} V S \ldots [NegP O_{[\text{+NEG}] \ldots [VP tv t_0]}}]
   \text{Ordering: } \text{Adv}<V \quad V<O
   \text{V}<S
   S<O
   O<VP \Rightarrow O<\emptyset
   \end{array}
   \]

If the main verb stays in situ, NegS of the object does not seem to be possible in present-day Norwegian (No), (4)a, but it is acceptable in Danish (Da), Swedish (Sw), Icelandic (Ic), and Faroese (Fa), (4)b-e.¹

(4)

a. *Jeg har ingenting sagt \( O \).  
   I have nothing said  

b. Jeg har ingenting sagt \( O \).  
   Da

c. Jag har ingenting sagt \( O \).  
   Sw

d. Êg hef ekkert sagt \( O \).  
   Ic

e. Eg havi einki sagt \( O \).  
   Fa

¹ Non-string-vacuous NegS in MSc is usually claimed in the literature to be possible in formal styles but not in colloquial ones; see K. K. Christensen (1986), Faarlund et al. (1997), Svenonius (2000) on No, Holmes & Hinchliffe (2003) on Sw, and K. R. Christensen (2005) on Da. However, my Western Jutlandic informants judged NegS across a verb in situ as unmarked while the vast majority of my Norwegian informants do not consider it grammatical, not even in formal style. Potential differences in style will be disregarded here.
The derivation in (5) leads to an ordering contradiction. At Spell-out of VP, the main verb precedes the object, $V/O$. If the negative object now undergoes NegS while the main verb remains in situ, the ordering statement established at Spell-out of CP, $O/V$, is not consistent with the previously established one. NegS across a verb in situ is thus predicted to be blocked, as borne out in No. 2

(5) **No NegS across a verb in situ; ex. (4)a**

a. *Jeg har ingenting sagt_____o.*

b. **VP**: $[VP V O_{[+NEG]}]$  
   Ordering: $V/O$

c. **CP**: *$[CP S Aux ... [NegP O_{[+NEG]} ... [VP V tO]]]$*
   Ordering: $S/Aux O<V$
   $Aux/O$
   $O<VP => O<V$

However, NegS across a verb in situ is possible in the other Scandinavian languages, (4)b-e. Under the cyclic linearization approach, non-string-vacuous movement must proceed via intermediate positions. As illustrated in (6), the object moves to the edge of VP prior to Spell-out. Consequently, the ordering statement $O/V$ is established at VP Spell-out. The object may then move from this edge position to SpecNegP, without giving rise to an ordering contradiction at Spell-out of CP.

(6) **NegS across a verb in situ; ex. (4)b-e**

a. Jeg har ingenting sagt_____o.*

b. **VP**: $[VP O_{[+NEG]} V tO]$  
   Ordering: $O/V$

c. **CP**: $[CP S Aux ... [NegP O_{[+NEG]} ... [VP tO V tO]]]$  
   Ordering: $S/Aux O<V$
   $Aux/O$
   $O<VP => O<V$

---

2 As NegS cannot not take place (see (1)b above), the ikke...noen-variant, which is always acceptable, must be used in case NegS is impossible.

(i) Mannen har ikke sagt noe.

man-the has not said anything

No
Thus, cross-linguistic variation as to NegS across a verb \textit{in situ} may be captured by differences in the availability of the edge of VP as intermediate landing site under the cyclic linearization approach; see Figure 1. More generally, since non-string-vacuous movement need to proceed via intermediate positions, variation as to which constituents can be crossed by NegS and whether or not NegS across a certain constituent requires the presence of a verb \textit{in situ} can be derived by contrasts in the availability of the relevant left-edge positions; see Engels (submitted-a) for details of the analysis.

Note that in contrast to phase-based approaches, where the edge of a phase represents the only escape hatch for movement out of the phase (cf. Chomsky 2000), movement out of a Spell-out domain need not proceed via the left-edge position and, in fact, must not do so in string-vacuous cases under the cyclic linearization approach; cf. (3). "Movement is possible from the non-edge of a relevant domain so long as the previously established linearization is not disrupted" (F&P 2003: 2).

### Figure 1

<table>
<thead>
<tr>
<th>NegS</th>
<th>Ic</th>
<th>Fa</th>
<th>WJ</th>
<th>Da</th>
<th>Sw</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>across ( \emptyset ) (= string-vacuous)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>across ( V \textit{ in situ} )</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>*</td>
</tr>
<tr>
<td>via ( \emptyset ) (= directly)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>edge of VP</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
</tbody>
</table>
2 Negative Shift of prepositional complements in Faroese

The data I collected during the NORMS dialect workshop in the Faroe Islands August 2008 display a peculiarity as regards NegS of the complement of a preposition. Informants were asked to give acceptability judgments on a scale from 1 (bad) to 5 (good) for various constructions involving negation. A rather strict concept of grammaticality is adopted here, interpreting only sentences judged 4 and 5 as acceptable.

All of the 34 informants accepted NegS across the preposition in the presence of a verb in situ, (7)a. Pied-piping the preposition as in (7)b, in contrast, was judged ungrammatical. Likewise, leaving the negative object in situ was rejected by all but one informant, (7)c.

<table>
<thead>
<tr>
<th>(7)</th>
<th>main verb in situ</th>
<th>Fa</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Í dag hevur Petur ongan tosað við _____ O.</td>
<td>34/34</td>
</tr>
<tr>
<td>b.</td>
<td>Í dag hevur Petur við ongan tosað _____ PP.</td>
<td>0/34</td>
</tr>
<tr>
<td>c.</td>
<td>Í dag hevur Petur tosað við ongan.</td>
<td>1/34</td>
</tr>
</tbody>
</table>

In contrast, if the main verb undergoes finite verb movement, NegS of a prepositional complement is subject to dialectal and inter-speaker variation as regards preposition stranding and pied-piping. In the dialect of Miðvágur (M), NegS just across the preposition as in (8)a is possible. In contrast, the vast majority of speakers from other places rejected preposition stranding during NegS in the absence of a verb in situ. However, about half of the speakers from Tórshavn (T) and Fuglafjørður (F) accepted NegS pied-piping the preposition; cf. (8)b. Finally, the speakers from Tvøroyri (Tv), Sandur (S) and Klaksvik (K) did not permit NegS of a prepositional complement at all, neither stranding the preposition nor pied-piping it.

<table>
<thead>
<tr>
<th>(8)</th>
<th>main verb moved</th>
<th>M</th>
<th>Tv</th>
<th>S</th>
<th>K</th>
<th>T</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Í gjár tosaði Petur ongan við _____ O.</td>
<td>7/7</td>
<td>0/4</td>
<td>0/4</td>
<td>0/6</td>
<td>1/8</td>
<td>1/5</td>
</tr>
<tr>
<td>b.</td>
<td>Í gjár tosaði Petur við ongan _____ PP.</td>
<td>2/7</td>
<td>1/4</td>
<td>1/4</td>
<td>0/6</td>
<td>4/8</td>
<td>3/5</td>
</tr>
</tbody>
</table>

Note that the sequence preposition<negative object in (8)b is structurally ambiguous between in situ occurrence of the PP, (9)a, and string-vacuous NegS pied-piping the preposition, (9)b. Since negative objects usually cannot appear inside VP, (1)b and (7)c, I will assume that the sequence preposition<negative object involves pied-piping.

<table>
<thead>
<tr>
<th>(9)</th>
<th>a.</th>
<th>Í gjár tosaði Petur [NegP e [VP _____ V [PP við ongan]]]</th>
</tr>
</thead>
<tbody>
<tr>
<td>b.</td>
<td>Í gjár tosaði Petur [NegP [PP við ongan] [VP _____ V _____ PP]]</td>
<td></td>
</tr>
</tbody>
</table>

"Some informants were excluded from the analysis due to deviant judgments in the overall questionnaire."
Figure 2 summarizes the observed variation. In the presence of a verb *in situ*, preposition stranding is obligatory during NegS while pied-piping the preposition is ungrammatical. In contrast, if the main verb occurs in C°, there is cross-linguistic and inter-speaker variation as to the acceptability of preposition stranding and pied-piping during NegS. (Inter-speaker variation is represented by "%" below.) These phenomena are even more surprising in view of the fact that pied-piping of a preposition seems generally acceptable during e.g. topicalization in Fa whereas preposition stranding is more restricted in this case (cf. Lockwood 1977, Thráinsson et al. 2004).

<table>
<thead>
<tr>
<th>NegS of prepositional complement</th>
<th>M</th>
<th>Tv/S/K</th>
<th>T/F</th>
</tr>
</thead>
<tbody>
<tr>
<td>verb <em>in situ</em></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>p-stranding</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>pied-piping</td>
<td>✓</td>
<td>✓</td>
<td>%</td>
</tr>
<tr>
<td>verb moved</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>p-stranding</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>pied-piping</td>
<td>✓</td>
<td>✓</td>
<td>%</td>
</tr>
</tbody>
</table>
2.1 Preposition stranding

The present section outlines a slightly simplified analysis of NegS of prepositional complements; for a more accurate version see Engels (submitted-a, submitted-b) and the Appendix.

As laid out in section 1, non-string-vacuous NegS must proceed via intermediate positions under the cyclic linearization approach. Thus, for the negative prepositional complement to be able to surface in a position to the left of the main verb *in situ* as in (7)a, it must be linearized to the left of the verb at VP Spell-out. In other words, the prepositional complement must move via the left edge of VP, as shown in (10).

(10) NegS stranding a preposition, main verb *in situ*; ex. (7)a

a. Í dag hevur Petur ongan tosað við ______.  
   *Fa*  
   *today has Peter nobody spoken with*  

b. VP:  
   \[ VP O [+NEG] V [PP P tO] \]  
   Ordering:  
   O<V  
   V<P  

c. CP:  
   \[ CP Adv Aux S ... [NegP O [+NEG] ... [VP tO V [PP P tO]]] \]  
   Ordering:  
   Adv<Aux  
   O<V  
   Aux<S  
   V<P  
   S<O  
   O<VP \( \Rightarrow \) O<V

NegS just across a preposition must not proceed via the edge of VP but via the edge of PP, giving rise to the ordering \( V<O<P \) at VP Spell-out. This is illustrated in (11).

(11) NegS stranding a preposition, main verb in *C°*; ex. (8)a

a. Í gjár tosaði Petur ongan _____ v við _____ O.  
   *M*  
   *yesterday spoke Peter nobody with*  

b. VP:  
   \[ VP V [PP O [+NEG] P tO] \]  
   Ordering:  
   V<O  
   O<P  

c. CP:  
   \[ CP Adv V S ... [NegP O [+NEG] ... [VP tV [PP tO P tO]]] \]  
   Ordering:  
   Adv<V  
   V<O  
   V<S  
   O<P  
   S<O  
   O<VP \( \Rightarrow \) O<P
Section 1 already argued that the edge of VP is available for intermediate movement during NegS in Fa; see Figure 1 and (10). All informants judged NegS stranding the preposition acceptable in the presence of a main verb in situ, (7). In contrast, movement via the edge of PP as in (11) seems to be more restricted: In the absence of a verb in situ, stranding of the preposition during NegS is possible in M but not in the other varieties; cf. (8)a. If the edge of PP is not available as intermediate position, NegS just across the preposition is predicted to be ruled out.

Thus, under the cyclic linearization approach, the fact that NegS across a preposition may depend on the position of the main verb is accounted for by differences in the availability of the edge of VP and the edge of PP as intermediate position; see Figure 3.

### Figure 3

<table>
<thead>
<tr>
<th>NegS across</th>
<th>M</th>
<th>Tv/S/K</th>
<th>T/F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø (= string-vacuous)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>V in situ</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>P verb in situ moved</td>
<td>✓</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

### 2.2 Pied-piping

The previous section showed that in the absence of a verb in situ, NegS stranding the preposition is only acceptable in M. However, for about half of the speakers from T and F, NegS of the prepositional complement is possible if it pied-pipes the preposition; most of the other informants, in contrast, rejected pied-piping (see the example in (8)b above repeated here as (12)b). Crucially, if the verb stays in situ, pied-piping is strictly prohibited; cf. (7)b above repeated in (12)a.

(12)  

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>Tv</th>
<th>S</th>
<th>K</th>
<th>T</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Í dag hevur Petur við ongan tosað ___pp.</td>
<td>0/7</td>
<td>0/4</td>
<td>0/4</td>
<td>0/6</td>
<td>0/8</td>
<td>0/5</td>
</tr>
<tr>
<td>b. Í gjár tosaði Petur við ongan ___v ___pp.</td>
<td>2/7</td>
<td>1/4</td>
<td>1/4</td>
<td>0/6</td>
<td>4/8</td>
<td>3/5</td>
</tr>
</tbody>
</table>
Under the assumption that feature checking is carried out in Spec-head configuration, pied-piping must involve feature percolation (cf. Chomsky 2001, K. R. Christensen 2005). Only if [+NEG] percolates up to PP can PP be attracted by Neg°.

\[ \text{Figure 4} \]

<table>
<thead>
<tr>
<th>NegS</th>
<th>M</th>
<th>Tv/S/K</th>
<th>T/F</th>
</tr>
</thead>
<tbody>
<tr>
<td>across</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( \emptyset (= \text{string-vacuous}) )</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>( \text{V in situ} )</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>P ( \text{verb in situ} )</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>P ( \text{verb moved} )</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>pied-piping</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P ( \text{verb in situ} )</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>P ( \text{verb moved} )</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>via edge of</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( \emptyset (= \text{directly}) )</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>VP</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>PP</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>feature percolation</td>
<td>-</td>
<td>-</td>
<td>±</td>
</tr>
</tbody>
</table>

The contrasts as to pied-piping during NegS of a prepositional complement suggest that feature percolation is subject to dialectal and inter-speaker variation; see Figure 4.

The fact that pied-piping is strictly prohibited if the main verb stays \( \text{in situ} \) indicates that feature percolation is not freely available, not even for those speakers of T and F who permit it if the main verb has undergone finite verb movement. Feature percolation and pied-piping can be regarded as a last resort strategy which is only available in case sentential negation cannot be licensed by the negative DP itself, i.e. if the negative DP cannot undergo NegS on its own.

As discussed in section 2.1, NegS just across the preposition is ruled out under the cyclic linearization approach adopted here if the edge of PP is not available as intermediate position. If the main verb occurs in \( C° \), NegS pied-piping the preposition is string-vacuous; i.e., it need not proceed via the edge of PP, (14). Hence, for those speakers who permit feature percolation, licensing of the negative object can be rescued by pied-piping the preposition.
Preposition stranding vs. pied-piping in Faroese

(14) NegS pied-piping P, main verb in C°; ex. (12)b

a. Í gjár tosaði Petur við ongan \_\_\_\_V \_\_\_\_PP. T/F
   yesterday spoke Peter with nobody

b. VP: [VP V [PP P O[+NEG][+NEG]]]
   Ordering: V<P
   P<O

c. CP: [CP Adv V S [NegP [PP P O][+NEG] ... [VP tv tPP]]]
   Ordering: Adv<V
   V<P
   V<S
   P<O
   O<VP => O<∅

In contrast, in the presence of a verb in situ, NegS must proceed via the edge of VP, irrespective of whether the preposition is stranded or pied-piped; compare (10) with (15). Since the edge of VP is generally available for intermediate movement in Fa, the complement of the preposition may undergo NegS on its own. Feature percolation (and pied-piping) is not necessary and, consequently, ruled out by the assumption that it is only permitted as a last resort strategy.

(15) No NegS pied-piping a preposition, main verb in situ; ex. (12)a

a. *Í dag hevur Petur við ongan tosað \_\_\_\_\_PP. Fa
   today has Peter with nobody spoken

b. VP: [VP [PP P O[+NEG][+NEG] V tPP]]
   Ordering: P<O
   O<V

c. CP: [CP Adv Aux S [NegP [PP P O][+NEG] ... [VP tPP V tPP]]]
   Ordering: Adv<Aux
   P<O
   Aux<S
   O<V
   P<O
   O<VP => O<V
3 Conclusion

NegS of a prepositional complement was shown to be subject to dialectal and inter-speaker variation in Fa as regards preposition stranding and pied-piping. Interestingly enough, this variation only emerges if the main verb undergoes finite verb movement; in the presence of a verb in situ, preposition stranding is obligatory during NegS (see Figure 5 below).

Under the cyclic linearization approach, non-string-vacuous movement is forced to proceed via intermediate positions. Contrasts as to the acceptability of non-string-vacuous NegS may thus be captured by differences in the availability of the relevant intermediate positions. In particular, the dependence on verb position observed with NegS across a preposition was taken to result from differences in the availability of the edge of VP and the edge of PP (section 2.1). NegS via the edge of VP seems generally possible in Fa, permitting preposition stranding in the presence of a verb in situ. In contrast, NegS via the edge of PP (i.e. NegS just across a preposition) is only possible in M but not in the other varieties.

Pied-piping the preposition makes movement via the edge of PP needless; the relative ordering between preposition and object is maintained. Thus, for those speakers who permit feature percolation, pied-piping is a way to ensure licensing of [+NEG]. Crucially, feature percolation and pied-piping are only available as a last resort strategy (if possible at all): They may only take place in case the negative complement cannot undergo NegS on its own due to the unavailability of the relevant edge position. In the presence of a verb in situ, pied-piping is prohibited in Fa. Irrespective of whether the preposition is stranded or pied-piped, NegS must proceed via the edge of VP. Feature percolation and pied-piping are not necessary and, consequently, not permitted (cf. section 2.2).

As NegS cannot not take place, the iki...nakað-variant (‘not...any’), which is always acceptable, must be used to express sentential negation if both preposition stranding and pied-piping are prohibited.

Figure 5

<table>
<thead>
<tr>
<th>NegS</th>
<th>M</th>
<th>Tv/S/K</th>
<th>T/F</th>
</tr>
</thead>
<tbody>
<tr>
<td>across</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>∅ (= string-vacuous)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>V in situ</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>P verb in situ</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>verb moved</td>
<td>✓</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>pied-piping</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P verb in situ</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>verb moved</td>
<td>*</td>
<td>*</td>
<td>%</td>
</tr>
<tr>
<td>via edge of</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>∅ (= directly)</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>VP</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>PP</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>feature percolation</td>
<td>-</td>
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<td>±</td>
</tr>
</tbody>
</table>
Appendix: Preposition stranding and pied-piping in the other Scandinavian languages – Restricting intermediate positions to the edges of Spell-out domains

A) Mainland Scandinavian languages

The observed contrasts as to NegS across a preposition are not unique to Fa. For instance, as in M, NegS across a preposition was judged acceptable by my Western Jutlandic (WJ) informants, irrespective of verb position; cf. (16).\(^4\) In contrast, my other Danish informants, referred to as DaL\(^5\), displayed an Inverse Holmberg Effect (F&P 2005)\(^6\): They rejected NegS across a preposition if the verb occurred in C\(^0\) while they (marginally) accepted it in the presence of a verb \textit{in situ}. In No, NegS across a preposition is not possible at all. Note that NegS cannot pied-pipe the preposition in these varieties, (17). In contrast, four of my six Swedish informants, referred to as SwL\(^7\), judged the sequence \textit{prepositions<negative object} (marginally) acceptable in case the finite verb had undergone finite verb movement although they did not permit pied-piping in the presence of a verb \textit{in situ}. Preposition stranding was subject to inter-speaker variation in this case but rejected by all informants in the absence of a verb \textit{in situ}.

\begin{table}[h]
\centering
\begin{tabular}{llllllllll}
\hline
\textbf{(16) preposition stranding} & \textbf{WJ} & \textbf{DaL} & \textbf{SwL} & \textbf{No} \\
\hline
a. I dag \textit{har} hun \textit{ingen} \textit{snakket med \_\_\_O.} & \checkmark & \checkmark & \% & \* \\
\textit{today} \textit{has} \textit{she} \textit{nobody} \textit{spoken} \textit{with} & & & & \\
b. I går \textit{snakkede hun \_\_\_\_\_V \textit{med \_\_\_O.}} & \checkmark & \* & \* & \* \\
\textit{yesterday} \textit{spoke} \textit{she} \textit{nobody} \textit{with} & & & & \\
\hline
\end{tabular}
\end{table}

\begin{table}[h]
\centering
\begin{tabular}{llllllllll}
\hline
\textbf{(17) pied-piping} & \textbf{WJ} & \textbf{DaL} & \textbf{SwL} & \textbf{No} \\
\hline
a. I dag \textit{har} hun \textit{med ingen \textit{snakket \_\_\_PP.}} & \* & \* & \* & \* \\
\textit{today} \textit{has} \textit{she} \textit{with} \textit{nobody} \textit{spoken} \textit{with} & & & & \\
b. I går \textit{snakkede hun} \textit{med ingen \_\_\_\_V \_\_\_PP.} & \* & \* & \% & \* \\
\textit{yesterday} \textit{spoke} \textit{she} \textit{with} \textit{nobody} \textit{spoken} \textit{with} & & & & \\
\hline
\end{tabular}
\end{table}

Notice that although NegS of a direct object across a verb \textit{in situ} is possible in Swedish, NegS across preposition and verb was rejected by some of the Swedish informants; see (4)c and (16)a. This contrast cannot be accounted for if in both cases the edge of VP is the only intermediate position NegS proceeds through. In other words, these facts point to the conclusion that more intermediate positions must be involved in the latter case.

Engels (submitted-a) assumes that only the edge of a Spell-out domain may serve as an intermediate position. Thus, in view of the fact that NegS just across a preposition has to proceed via the edge of PP (section 2.1), PP must be a Spell-out (cf. Sabbagh 2007). As a consequence, all movement across a preposition must proceed via the left edge of PP (see

\(^4\) The WJ data was collected during the NORMS dialect workshop in Western Jutland January 2008.
\(^5\) As these informants are linguists at the University of Aarhus, from different regions of Denmark, they do not represent a dialect group.
\(^6\) Holmberg’s generalization, in contrast, states that movement of the main verb must take place for Object Shift to be possible; cf. Holmberg (1986, 1999).
\(^7\) As these informants are linguists at the University of Gothenburg, from different regions of Sweden, they do not represent a dialect group.
also Baltin 1978 and van Riemsdijk 1978). For NegS across preposition and verb as in (7)a and (16)a, this means that the negative object moves via the edge of PP to the edge of VP on its way to SpecNegP; cf. (18). In contrast, NegS just across the preposition must move directly from the edge of PP to SpecNegP, as illustrated in (19).

(18) NegS stranding a preposition, main verb in situ; ex. (7)a/(16)a

a. Í dag hevur Petur ongan tosað við _____O. Fa
today has Peter nobody spoken with

b. PP: [PP O[+NEG] P tO]
Ordering: O<P

c. VP: [VP O[+NEG] V [PP tO P tO]]
Ordering: O<V O<P
V<PP => V<P

(19) NegS just across P, main verb in C°; ex. (8)a/(16)b

a. Í gjár tosaði Petur ongan ____V við _____O. M/WJ
yesterday spoke Peter nobody with

d. CP: [CP Adv V S ... [NegP O[+NEG] ... [VP tV V [PP tO P tO]]]]
Ordering: Adv<V V<PP => V<O O<P
V<PP => V<P

While the edge of PP is obviously available for intermediate movement to the next edge position in Fa, DaL and WJ, direct movement from the edge of PP to the target position of
NegS, SpecNegP, seems more restricted: All informants of these varieties judged NegS stranding the preposition acceptable in the presence of a main verb in situ, but NegS just across the preposition was only permitted in M and WJ; compare the examples in (7)a, (8)a and (16). Moreover, NegS across a preposition is prohibited altogether in No as well as for some speakers of SwL. This is expected if the edge of PP is not available as intermediate position during NegS at all, neither for movement to the next edge position nor for movement to SpecNegP.

Hence, cross-linguistic and inter-speaker variation as to NegS across a preposition in the presence/absence of a verb in situ may be accounted for by differences in the availability of the edge of PP for intermediate movement to the next edge position and/or direct movement to SpecNegP; see Figure 6.

**Figure 6**

<table>
<thead>
<tr>
<th>NegS</th>
<th>M/WJ</th>
<th>Tv/S/K/DaL</th>
<th>T/F</th>
<th>SwL</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>across</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>θ (= string-vacuous)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>V in situ</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>*</td>
</tr>
<tr>
<td>P verb in situ</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>%</td>
<td>*</td>
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<tr>
<td>verb moved</td>
<td>✓</td>
<td>*</td>
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<td>*</td>
<td>*</td>
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<tr>
<td>via edge of</td>
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<tr>
<td>θ (= directly)</td>
<td>+</td>
<td>+</td>
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<td>+</td>
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<tr>
<td>VP</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>pp to next edge</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>±</td>
<td>-</td>
</tr>
<tr>
<td>to SpecNegP</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**B) Icelandic**

As laid out in section 2, the position of the main verb may affect NegS of a prepositional complement in Fa as regards preposition stranding and pied-piping. In Ic, in contrast, NegS of a prepositional complement does not seem to be dependent on verb position. Instead, according to Svenonius (2000), the choice between preposition stranding and pied-piping during object movement to a clause-medial position is determined by the verb-preposition combination; cf. the contrast between (20)/(21) and (22)/(23). (Notice that the examples in (20) and (22) actually do not involve negative objects but non-negative quantified ones, which may optionally undergo quantifier movement in Ic.)
(20) a. Hann hefur ymsa talað við __O.
    b. *?Hann hefur við ymsa talað ______PP. 

(21) a. ?Ég talaði engan ___v við __O.
    b. *?Ég talaði við engan ___v ______PP. 

(22) a. *?Hann hefur ekki neinum hlegið að __O.
    b. Hann hefur ekki að neinum hlegið ______PP. 

(23) a. *?Ég hlo engum ___v að __O.
    b. ?Ég hlo að engum ___v ______PP. 

As the above examples show, preposition stranding and pied-piping are independent of verb position in Ic; both may take place in the presence and absence of a verb in situ. This can be accounted for under the cyclic linearization approach adopted here by the assumption that the left edge of PP is available both for movement to the next edge position and for direct movement to SpecNegP in some cases but not available for either of these movements in other cases, depending on the verb-preposition combination. For instance, tala við 'speak with' but not hlaeja að 'laugh at' permit NegS via the edge of PP. Feature percolation and pied-piping may then again be considered to be a last resort strategy, accessible only in case the complement cannot license [+NEG] on its own due to the unavailability of the edge of PP as intermediate position. NegS pied-piping the preposition retains the base order of preposition and object and thus need not go via the edge of PP; see the derivations in (14) and (15) above. In contrast, if the edge of PP is available for NegS, licensing of [+NEG] can be carried out by the complement itself; cf. (18) and (19) above. Feature percolation and pied-piping are not necessary and, consequently, not permitted.8

8 Alternatively, one might assume that feature percolation itself is dependent on verb-preposition combination. If the given verb-preposition combination induces feature percolation, PP is marked [+NEG] and, consequently, must undergo NegS. Otherwise, the negative DP undergoes NegS on its own, stranding the preposition.
References


