

The Germanic Languages and the SOV/SVO difference

VII. Object Shift and Scrambling – An OT Approach

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Abstract

Although they both place an object to the left of a sentential adverbial, Scandinavian Object Shift (OS) and continental West Germanic Scrambling (SCR) are normally treated as two different phenomena since they do not take place under exactly the same circumstances. We want to investigate their properties and show that they are quite similar in what moves and which position movement can target, provided one considers the entire range of OS and SCR languages. The main difference between OS and SCR is that the former presupposes movement of the main verb whereas the latter does not. This property might be related to the contrast in basic verb placement, VO in Scandinavian vs. OV in the continental West Germanic languages.

The Optimality Theoretic account to be suggested below will not distinguish between (Scandinavian) OS and (continental West Germanic) SCR as such, as the differences will simply follow from more general constraints on object movement, given the linear differences between the languages. A distinction will be made concerning the complexity of the moved element, weak pronouns vs. complex phrases. Cross-linguistic contrasts in the availability of the movement operations and in their restrictions will be derived from differences in the language-specific rankings of constraints.

1 Movement and Holmberg's Generalisation

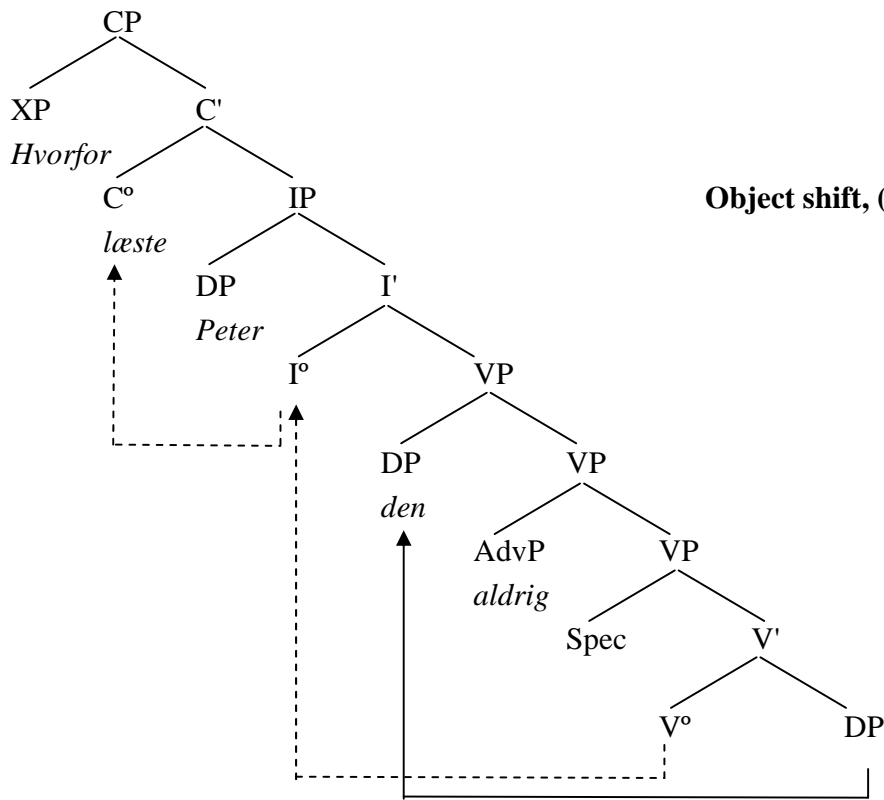
1.1 Object Shift

1.1.1 Verb Movement

OS is dependent on movement of the main verb: OS may only take place if the main verb does not occupy its base position. In MSc, a finite verb moves to V2 position in main clauses whereas it stays *in situ* in embedded clauses; consequently, OS is only possible in main clauses but not in embedded clauses. Moreover, note that in MSc, OS may apply to pronouns but not to full DPs, compare (1) vs. (2); see also section 2.1.1 below.

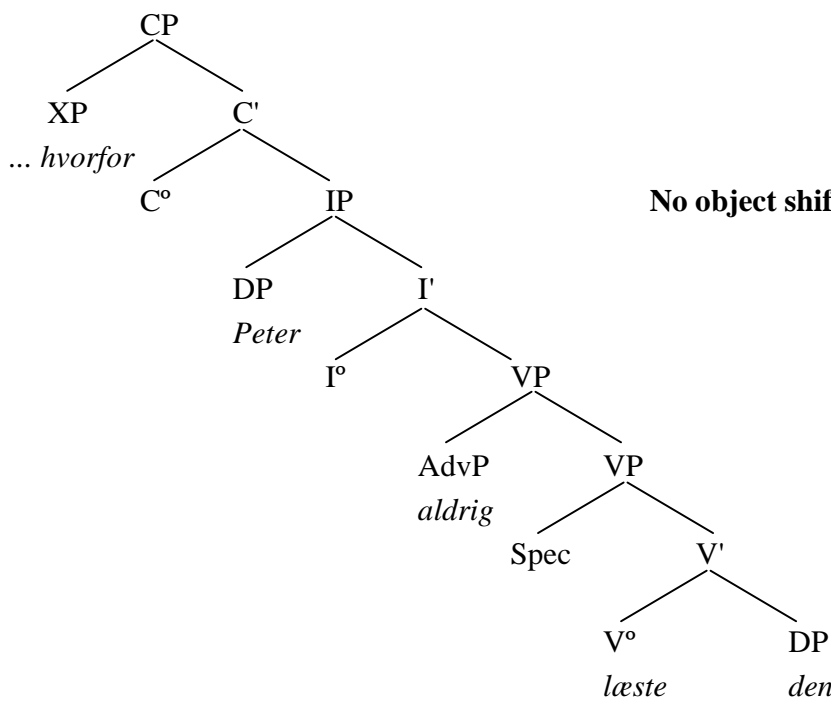
- (1) Da a. Hvorfor læste Peter aldrig ___ bogen?
why read Peter never book-the
b. *Hvorfor læste Peter bogen aldrig ___ ___?
- (2) Da a. *Hvorfor læste Peter aldrig ___ den?
why read Peter never it
b. Hvorfor læste Peter den aldrig ___ ___?
- (3) Da a. Jeg spurgte hvorfor Peter aldrig læste den.
I asked why Peter never read it
b. *Jeg spurgte hvorfor Peter den aldrig læste ___.

(4) Da



Object shift, (2)b, main clause

(5) Da



No object shift, (3)a, embedded clause

(Potential *wh*-movement of *hvorfor* 'why' and subject movement from Spec,VP to Spec,IP is left out.)

In contrast to MSc, finite verb movement in Icelandic takes place in both main clauses and embedded clauses. Furthermore, OS does not only apply to pronouns, (7) and (9), but may also optionally affect full DPs in Icelandic, see (6) and (8).

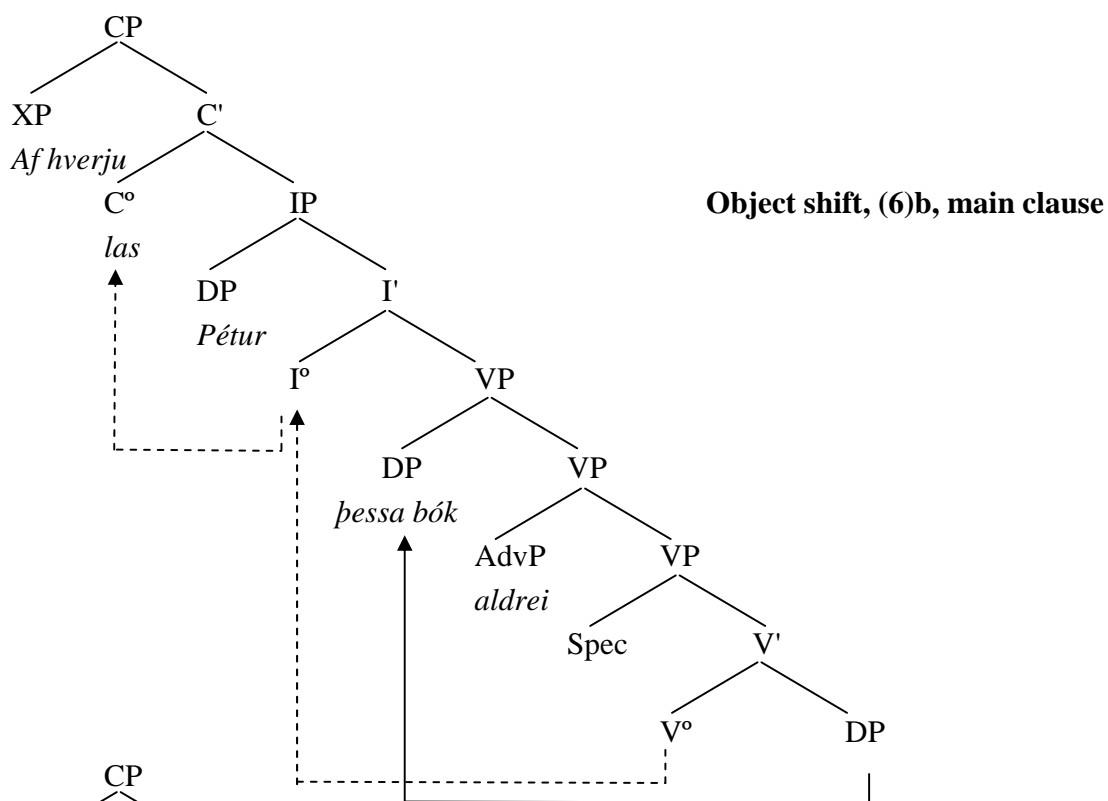
- (6) Ic a. Af hverju las Pétur aldrei _____ þessa bók?
why read Pétur never this book
 b. Af hverju las Pétur þessa bók aldrei _____?
 (Vikner 2005: 394)

- (7) Ic a. *Af hverju las Pétur aldrei _____ hana?
why read Pétur never it
 b. Af hverju las Pétur hana aldrei _____?
 (Vikner 2005: 394)

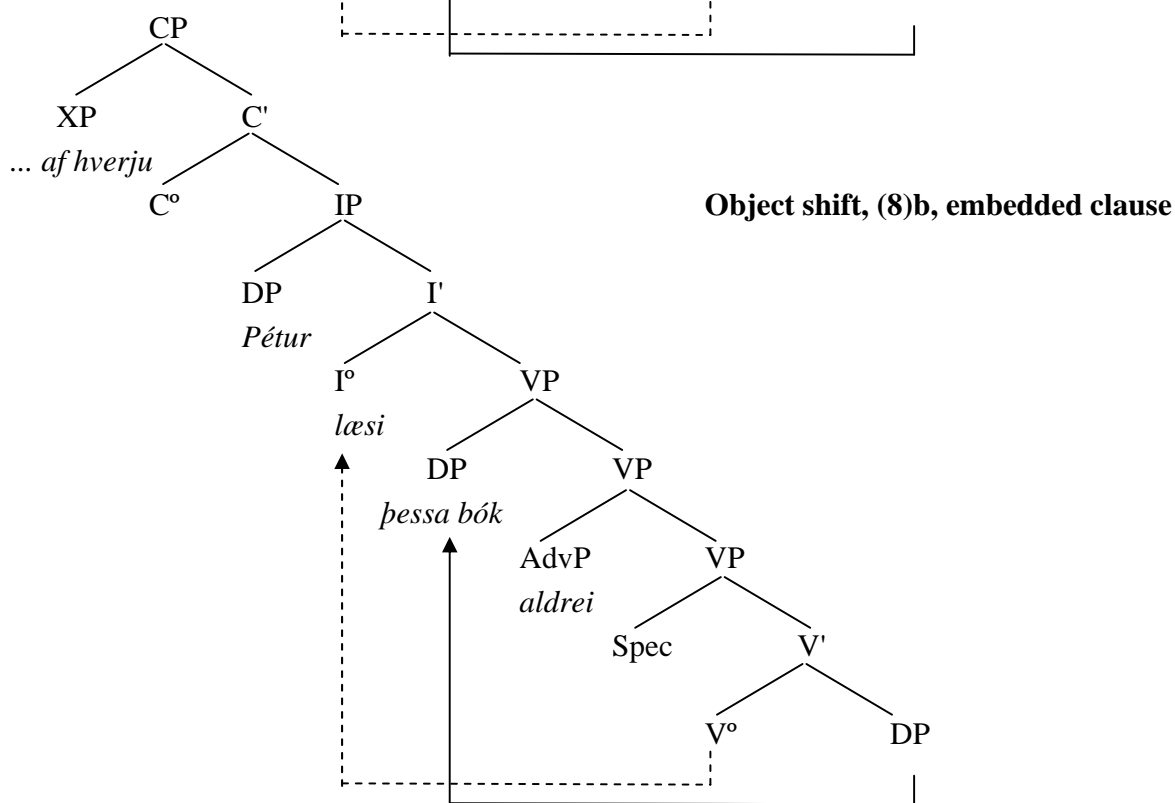
- (8) Ic a. Ég spurði af hverju Pétur læsi aldrei _____ þessa bók.
I asked why Pétur read never this book
 b. Ég spurði af hverju Pétur læsi þessa bók aldrei _____.
 (Vikner 2005: 396)

- (9) Ic a. *Ég spurði af hverju Pétur læsi aldrei _____ hana.
I asked why Pétur read never it
 b. Ég spurði af hverju Pétur læsi hana aldrei _____.
 (Vikner 2005: 396)

(10) Ic



(11) Ic



In contrast to finite verbs, non-finite verbs usually do not move. OS is impossible across a non-finite main verb in any of the Scandinavian languages.

- (12) Da a. Hvorfor havde Peter aldrig læst den?
why had Peter never read it
 b. *Hvorfor havde Peter den aldrig læst ___?
- (13) Da a. Jeg spurgte hvorfor Peter aldrig havde læst den.
I asked why Peter never had read it
 b. *Jeg spurgte hvorfor Peter den aldrig havde læst ___.
- (14) Ic a. Af hverju hafði Pétur aldrei lesið þessa bók?
why had Pétur never read this book
 b. *Af hverju hafði Pétur þessa bók aldrei lesið _____?
 (Vikner 2005: 395)
- (15) Ic a. Af hverju hafði Pétur aldrei lesið hana?
why had Pétur never read it
 b. *Af hverju hafði Pétur hana aldrei lesið _____?
 (Vikner 2005: 395)
- (16) Ic a. Ég spurði af hverju Pétur hefði aldrei lesið þessa bók?
I asked why Pétur had never read this book
 b. *Ég spurði af hverju Pétur hefði þessa bók aldrei lesið _____?
- (17) Ic a. Ég spurði af hverju Pétur hefði aldrei lesið hana?
I asked why Pétur had never read it
 b. *Ég spurði af hverju Pétur hefði hana aldrei lesið _____?

There are cases, however, where a non-finite verb moves.

First, infinitival verbs in Icelandic control structures undergo V°-to-I° movement (or maybe V°-to-I°-C°), as illustrated by their position relative to an adverbial. As would be expected, these have OS too.

- (18) Ic a. *María lofaði að ekki lesa bókina.
Maria promised to not read book-the
 b. María lofaði að lesa ekki ___ bókina.
 c. María lofaði að lesa bókina ekki ___ _____. (Jónsson 1996: 164)

Second, OS may take place in clauses with a non-finite main verb if the verb occurs in clause-initial position.

- (19) Sw a. Kysst har jag henne inte ___ ___ (bara hållit henne i handen).
kissed have I her not only held her by hand-the
 (Holmberg 1997: 205)
- Da b. Kysset har jeg hende ikke ___ ___ (bare holdt hende i hånden).
kissed have I her not only held her in hand.the
 (Vikner 2005: 407)
- Ic c. Kysst hef ég hana ekki ___ ___ (bara haldið í höndina á henni).
kissed have I her not only held in hand.the on her
 (Vikner 2005: 431)

The observation that the object only moves if the main verb has moved forms the basis of what is called Holmberg's generalisation (Holmberg 1986: 165, 1997: 208).

(20) **Holmberg's Generalisation** (Holmberg 1997: 208)

Object Shift is blocked by any phonologically visible category preceding/c-commanding the object position within VP.

[Here "within VP" has to mean that only elements "properly inside" VP (i.e. not adverbials or other elements adjoined to VP) may block object shift.

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HG does not only refer to main verbs but to any intervening non-adverbial element. The following sections show how HG affects object positions in particle verb constructions and double object constructions.

1.1.2 Particle Verbs

In languages in which the object precedes a verb particle, OS is possible in particle verb constructions, compare (23) and (26). In Danish, the object always precedes the verb particle, (21) and (22), and in Norwegian, Icelandic, and Faroese, the object has to precede the particle if it is a pronoun and it may do so if it is a full DP, (24) and (25).

- (21) Da a. *Jeg har ikke skrevet op nummeret.
 I have not written up number-the
 b. Jeg har ikke skrevet nummeret op.
- (22) Da a. *Jeg har ikke skrevet op det.
 I have not written up it
 b. Jeg har ikke skrevet det op.
- (23) Da a. *Jeg skrev ikke det op.
 I wrote not it up
 b. Jeg skrev det ikke ____ op.
- (24) No a. Jeg har ikkje skrevet opp nummeret.
 I have not written up number-the
 b. Jeg har ikkje skrevet nummeret opp.
- (25) No a. *Jeg har ikkje skrevet opp det.
 I have not written up it
 b. Jeg har ikkje skrevet det opp.
- (26) No a. *Jeg skrev ikkje det opp.
 I wrote not it up
 b. Jeg skrev det ikkje ____ opp.

By contrast, in languages in which the object follows the particle as in Swedish, see (27) and (28), OS may not take place across a particle, (29).¹

¹ According to Vinka (1998, 1999), there are two classes of verbal particles in some Swedish varieties, transparent and non-transparent ones. Non-transparent particles do not permit the order *object < particle* whereas transparent ones do. Note that this order is only possible with pronominal objects.

- (27) Sw a. Jag har inte skrivit upp numret.
I have not written up number-the
 b. *Jag har inte skrivit numret upp.
- (28) Sw a. Jag har inte skrivit upp det.
I have not written up it
 b. *Jag har inte skrivit det upp.
- (29) Sw a. Jag skrev inte upp det.
I wrote not up it
 b. *Jag skrev det inte upp ____.

However, as with participles in (19) above, also Swedish particles may move to Spec,CP in which case OS may take place after all.

- (i) %Sw a. *Kalle smutsade den ner.
Kalle dirtied it down
 b. Kalle tog dem av.
Kalle took them off
 c. Kalle satte den på.
Kalle switched it on (Vinka 1998: 271, cited in Bobaljik 2002: 239)
 d. *Kalle satte TVn på.
Kalle switched TV on (Sells 2001: 69)

The possibility of particle shift order is independent of OS: it may occur in embedded clauses.

- (ii) %Sw Jag vet [att Kalle inte tog dem av].
I know that Kalle not took them off (Vinka 1998: 272, cited in Bobaljik 2002: 239)

Particle shift in this dialect feeds OS. OS is impossible across non-transparent particles (compare (29)b above), but acceptable in constructions with transparent particles.

- (iii) %Sw Kalle tog dem inte ____ av.
Kalle took them not ____ off (Bobaljik 2002: 239)

Furthermore, an object may be placed in front of a particle in Swedish if the particle is complex, and it may not follow the entire particle phrase. OS is possible in this case, (v).

- (iv) Sw a. Vi kastade den ut genom fönstret.
we threw it out through window-the
 b. Vi kastade ut den genom fönstret.
 c. *Vi kastade ut genom fönstret den. (Holmberg 1986: 201)
- (v) Sw Vi kastade den genast ____ ut genom fönstret.
we threw it at-once out through window-the (Holmberg 1986: 201)

(30) Sw a. UT kastade dom mej inte ___ ___ (bara ned för trappan).
out threw they me not (only down the stairs)

b. (Ja, ja, jag ska mata din katt, men) IN släpper jag den inte ___ ___.
(All right, I will feed your cat but) in let I it not

(Holmberg 1997: 209)

1.1.3 Double Objects

In double object constructions, an indirect object pronoun (IO) may undergo OS independent of the direct object (DO).

(31) Da a. *Jeg gav ikke hende bogen.
I gave not her book-the

b. Jeg gav hende ikke ___ bogen.

By contrast, whether or not a DO pronoun may undergo OS depends on the position of the IO. A DO pronoun cannot shift across an *in situ* IO, (32); yet, the DO may undergo OS if the IO is moved out of the way – by *wh*-movement, (33)a, topicalisation, (33)b, or OS, (33)c:

(32) Sw a. Jag gav inte Elsa den. (Sells 2001: 48)
I gave not Elsa it

b. *Jag gav den inte Elsa ___ (Holmberg 1997: 203)

(33) Sw a. Vem gav du den inte ___ ___?
who gave you it not

b. Henne visar jag den helst inte ___ ___.
her show I it rather not

c. Jag visar henne den inte ___ ___ (Holmberg 1997: 209/209)
I show her it not

Just as a DO cannot shift across an *in situ* IO, multiple OS cannot change the order of objects in Danish and Icelandic:²

² In Swedish, it seems to be a question of dialectal variation whether or not the order of pronominal objects may be reversed by OS. According to Hellan & Platzack (1999), a DO pronoun may move across an *in situ* IO pronoun (but not across a full DP IO, compare (32) above), and Holmberg (1986) gives an example in which multiple OS changes the order of objects. According to Josefsson (2003: 205), however, the basic order IO < DO cannot be changed by OS: (i)b and (ii)b were judged unacceptable in her tests.

- (34) Da a. Jeg gav hende den ikke ____ ____.
I gave her it not
 b. *Jeg gav den hende ikke ____ ____.
- (35) Ic a. P gaf örugglega konunginum ambáttina.
P gave certainly king-the slave-the
 (= '... the slave to the king')
 b. P gaf konunginum ambáttina örugglega ____ ____.
 c. *P gaf ambáttina konunginum örugglega ____ ____.

1.2 Scrambling

1.2.1 Verb Movement

Object positions in the SCR languages do not depend on the position of the main verb: SCR is possible in both main clauses with a finite main verb where the verb moves to V2 position, (36) and (37), and in embedded clauses or clauses with a non-finite main verb where no movement of the main verb takes place, (38)- (43). Similar to Icelandic, a non-pronominal object may optionally undergo SCR, cf. that it may either precede or follow the adverbial *nie* 'never', e.g. (36), whereas a pronominal object must precede the adverbial *nie* 'never', e.g. (37).

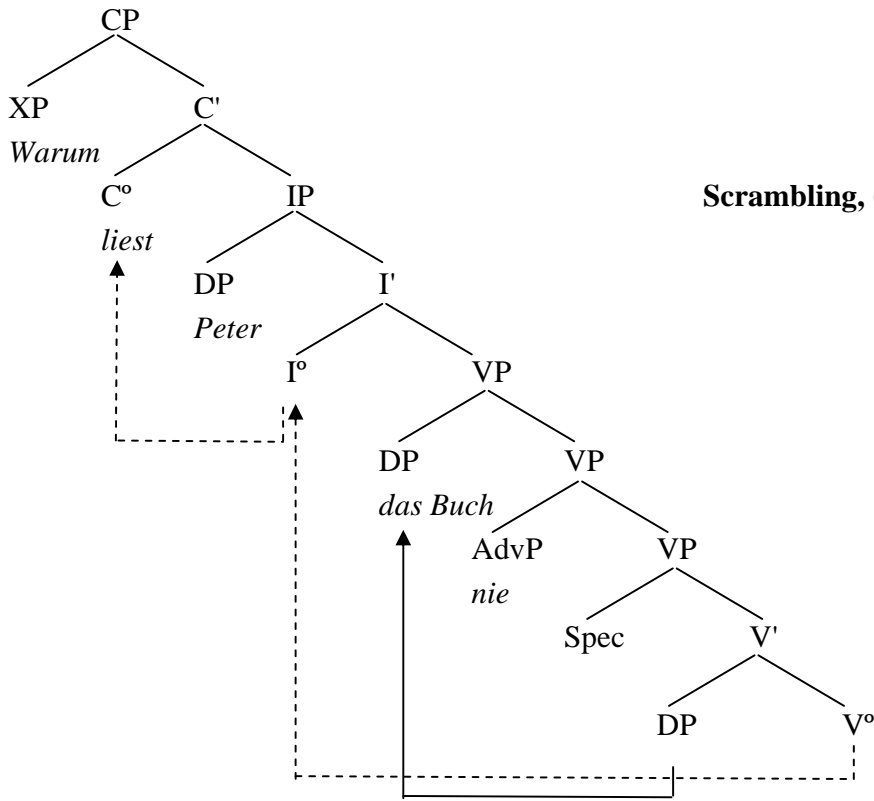
-
- (i) Sw a. Han visade henne inte ____ den.
he showed her not it
 b. Han gav den inte henne ____.
he gave it not her (Hellan & Platzack 1999: 131/132)
- (ii) Sw a. Jag gav henne den inte ____ ____.
I gave her it not
 b. Jag gav den henne inte ____ ____.
 (Holmberg 1986: 207)

In Norwegian, multiple OS may reverse the order of objects, (iii)d, although a DO pronoun cannot be moved across an *in situ* IO, (iii)e:

- (iii) No a. Eg ga ikkje ho den.
I gave not her it
 b. Eg ga ho ikkje ____ den.
 c. Eg ga ho den ikkje ____ ____.
 d. Eg ga den ho ikkje ____ ____.
 e. *Eg ga den ikkje ho ____ ____.
 (Christensen 2005: 160)

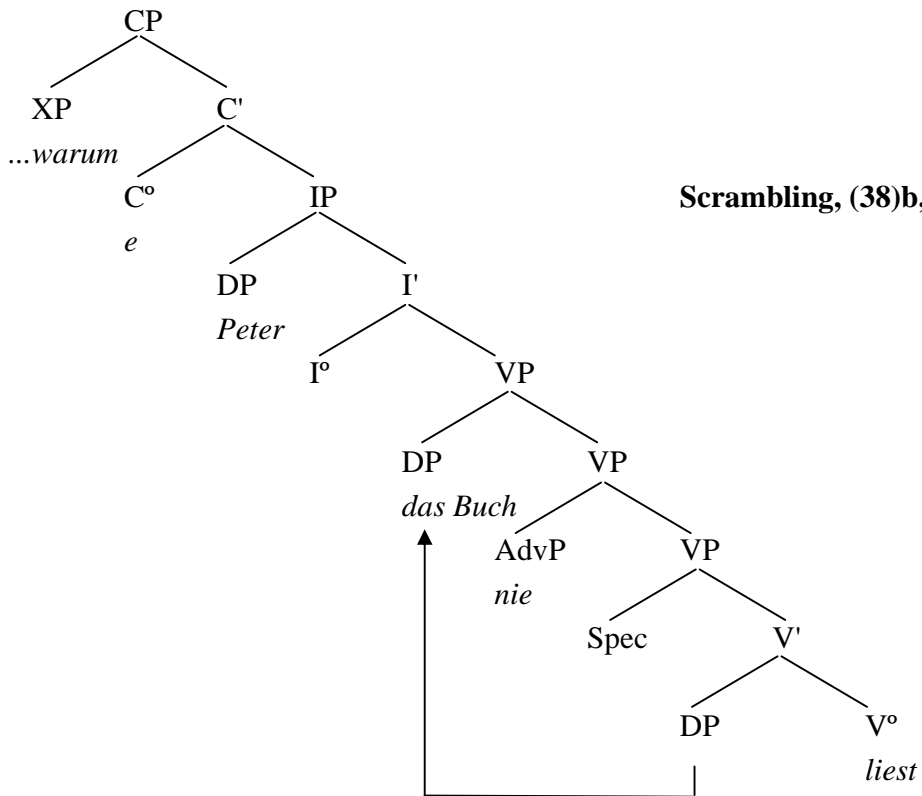
- (36) Ge a. Warum liest Peter nie das Buch ____?
why reads Peter never the book
 b. Warum liest Peter das Buch nie _____ ____?
- (37) Ge a. *Warum liest Peter nie es ____?
why reads Peter never it
 b. Warum liest Peter es nie ____ ____?
- (38) Ge a. Ich frage mich warum Peter nie das Buch liest.
I ask myself why Peter never the book reads
 b. Ich frage mich warum Peter das Buch nie _____ liest.
- (39) Ge a. *Ich frage mich warum Peter nie es liest.
I ask myself why Peter never it reads
 b. Ich frage mich warum Peter es nie ____ liest.
- (40) Ge a. Warum hat Peter nie das Buch gelesen?
why has Peter never the book read
 b. Warum hat Peter das Buch nie _____ gelesen?
- (41) Ge a. *Warum hat Peter nie es gelesen?
why has Peter never it read
 b. Warum hat Peter es nie ____ gelesen?
- (42) Ge a. Ich frage mich warum Peter nie das Buch gelesen hat.
I ask myself why Peter never the book read has
 b. Ich frage mich warum Peter das Buch nie _____ gelesen hat.
- (43) Ge a. *Ich frage mich warum Peter nie es gelesen hat.
I ask myself why Peter never it read has
 b. Ich frage mich warum Peter es nie ____ gelesen hat.

(44) Ge



Scrambling, (36)b, main clause

(45) Ge



Scrambling, (38)b, embedded clause

The dependence of OS on verb movement was captured by HG in section 1.1.1 above. Consequently, at first glance, the fact that SCR does not depend on verb movement suggests that SCR is not subject to HG. However, whether or not SCR may be affected by HG relies on the exact definition of HG. The definition in (20) above, repeated in (46), is vague with respect to whether precedence or c-command of a phonologically visible category blocks movement.

(46) **Holmberg's Generalisation** (Holmberg 1997: 208)
 Object Shift is blocked by any phonologically visible category preceding/c-commanding the object position within VP.

[Here "within VP" has to mean that only elements "properly inside" VP (i.e. not adverbials or other elements adjoined to VP) may block object shift.

E.E. & S.V.]

In case c-command is the decisive factor, SCR cannot be subject to HG: The main verb in final position c-commands its object which may move nevertheless. However, if precedence is the decisive factor, the question of whether or not SCR is subject to HG cannot be determined by its independence of verb movement: SCR languages are OV; i.e. the verb never intervenes linearly between the base position of an object and its scrambled position and, consequently, could never have a blocking effect on SCR (see also a similar suggestion in Déprez 1994:111).

The next sections focus on the question of whether or not a linear version of HG also affects SCR. For that, we will look at constructions in which an effect of HG was found in the OS languages, particle verbs and double object constructions.

1.2.2 Particle verbs

In contrast to OS, SCR is never blocked by particles. Particles occupy a verb-adjacent position in German; consequently, they do not intervene between a scrambled argument and its trace (at least not linearly, but they might do so structurally). Hence, it cannot be determined whether or not SCR is subject to a linear HG on the basis of particle verbs.

- | | | | | | | |
|------|-------|------------------|--------------------|--------------|--------------------|--------------------|
| (47) | Ge a. | Er wirft | | nie | <u>seinen Müll</u> | weg. |
| | | <i>he throws</i> | | <i>never</i> | <i>his garbage</i> | <i>away</i> |
| | b. | Er wirft | <u>seinen Müll</u> | nie | _____ | weg. |
| | | | | | | |
| (48) | Ge a. | ... weil | er | nie | <u>seinen Müll</u> | wegwirft. |
| | | <i>because</i> | <i>he</i> | <i>never</i> | <i>his garbage</i> | <i>away-throws</i> |
| | b. | ... weil | er | nie | <u>seinen Müll</u> | wegwirft. |

1.2.3 Double Objects

There is cross-linguistic variation within the SCR languages as to whether or not SCR may change the order of arguments.

In German, SCR may reverse the order of arguments: A DO can move across an IO, irrespective of whether the IO occurs *in situ*, (49)d, or in a scrambled position itself, (49)e. The pronouns in (50) preferably occur in the order DO<IO, i.e. the reverse of the basic order.

- (49) Ge a. ... weil er nie der Frau den Roman gegeben hat.
because he never the woman the novel given has
 b. ... weil er der Frau nie _____ den Roman gegeben hat.
 c. ... weil er der Frau den Roman nie _____ _____ gegeben hat.
 d. ... weil er den Roman nie der Frau _____ gegeben hat.
 e. ... weil er den Roman der Frau nie _____ _____ gegeben hat.
- (50) Ge a. ?... dass Fritz ihr ihn wahrscheinlich _____ gegeben hat.
that Fritz her him probably given has
 b. ... dass Fritz ihn ihr wahrscheinlich _____ gegeben hat.

Similarly, movement of a pronoun does not have to maintain the base order of arguments in Dutch: A clitic DO pronoun is able to move across a full DP IO, and the order of two object pronouns is variable.

- (51) Du a. ??...dat Jan Marie 't gegeben heeft.
that Jan Mary it given has
 b. ... dat Jan 't Marie _____ gegeben heeft. (Zwart 1993: 129)
- (52) Du a. ?... dat Jan 'r 't gegeben heeft.
that Jan her it given has
 b. ... dat Jan 't 'r _____ gegeben heeft. (Zwart 1993: 129)

However, by contrast, the order of (non-focused) full DP objects cannot be reversed in Dutch: A full DP DO cannot move across an IO, irrespective of whether the IO occurs *in situ* or in scrambled position itself.³

³ Reversal of the basic order of (non-focused) DP arguments is only possible if it results in the order *nominative* < *non-nominative*:

- (53) Du a. ... dat ik de jongen het boek gisteren gegeven heb.
 that I *yesterday the boys the book given have*
 b. ... dat ik de jongen gisteren _____ het boek gegeven heb.
 c. ... dat ik de jongen het boek gisteren _____ gegeven heb.
 d. *... dat ik het boek gisteren de jongen _____ gegeven heb.
 e. *... dat ik het boek de jongen gisteren _____ gegeven heb.
- (De Hoop & Kosmeijer 1995:150)

The prohibition against reversal of the order of arguments in the OS languages was traced back to HG: Object movement cannot cross an intervening non-adverbial element, compare section 1.1.3 above. The same restriction on full DP SCR in Dutch could be accounted for by a linear conception of HG: While a verb *in situ*, a particle as well as an IO all c-command a DO, only the latter also precedes the DO and would thus intervene between the scrambled position of the DO and its trace; verb and particle do not intervene and are thus expected not to block SCR.

However, under the assumption that this restriction on SCR of full DPs in Dutch is in fact an effect of HG, i.e. that HG affects SCR in Dutch, HG must be violable or subject to parametric variation: While OS is subject to HG irrespective of the complexity of the shifted constituent, SCR of pronominal and non-pronominal phrases in German as well as SCR of pronouns in Dutch differ from Dutch full DP SCR in that they may move an object across a higher argument. Moreover, the contrast between full DPs and pronouns in Dutch as to the ability to scramble across a higher argument points to the conclusion that pronoun SCR and full DP SCR have to be differentiated, i.e. they are two different movement devices. (Note that in addition to this, Dutch also allows a full DP to move across a higher argument if it is focused, indicating that there is a further movement device for focused phrases which is not subject to HG and which has to be distinguished from SCR of defocused constituents; see (91) below.)

-
- (i) Du a. ... dat het meisje de ergste rampen_{NOM} overkwamen.
 that the girl the most-terrible disasters happened.PL
 b. ... dat _____ het meisje overkwamen.
 de ergste rampen_{NOM} _____
 c. ... dat (er) een meisje erge rampen_{NOM} overkwamen.
 that (there) a girl terrible disasters happened.PL
 d. ... dat (er) erge rampen_{NOM} een meisje overkwamen.
- (Haider & Rosengren 2003: 248)

Moreover, a PP-complement may be moved in front of a DP one, see (104).

1.3 Summary

The previous sections have argued that OS and SCR differ from each other only to a certain extent. Although there is variation between OS and SCR as to which elements move and when they move, this variation is actually expected under a linear conception of HG:

- a. OS requires movement of the main verb, whereas SCR does not. However, the base position of the verb linearly intervenes between a moved object and its trace in the Scandinavian languages, whereas it does not in the continental West Germanic languages. Hence, under a linear conception of HG, this contrast would be expected even if both OS and SCR were subject to HG.
- b. There is variation within the OS languages as to whether OS can move an object in a particle verb construction. However, also this variation follows from independent differences: The object of a particle verb cannot move across the particle. All cases where the object of a particle verb does move turn out to be cases where OS or SCR begins in a position to the left of the particle, and therefore does not have to cross a particle linearly. This is so in some OS languages and in all the SCR languages, cf. that as we saw in hand-out II, all particles in the SCR languages are to the right of the object.
- c. Only in double object constructions are the conditions for the application of HG the same for all the Germanic languages under consideration, because the IO precedes the DO in the base order in all the languages, and, consequently, movement of the DO would have to cross a linearly intervening element if the IO stays in situ. Nevertheless, we also find cross-linguistic variation as to whether or not object movement is possible in this case: While OS across the IO in Danish and Icelandic is ruled out, the availability of SCR across the IO depends on the complexity of the moved element in Dutch (pronouns vs. complex phrases); and finally in German, both SCR of pronouns and SCR of complex phrases across the IO is possible. These last facts would seem to point to the conclusion that HG is subject to parametric variation, applying to Scandinavian OS and Dutch SCR of complex phrases, but not to SCR in German nor to pronominal SCR in Dutch.

2 Restrictions on the syntactic category of the moved constituent

2.1 Object Shift

2.1.1 Complexity

As mentioned in section 1.1.1, movement of a full DP in front of a sentential adverbial may optionally take place in Icelandic, whereas it is unacceptable in MSc, compare (1) vs. (6), repeated as (54) and (55).

- (54) Ic a. Af hverju las Pétur aldrei þessa bók?
why read Pétur never this book
b. Af hverju las Pétur þessa bók aldrei _____?

- (55) Da a. Hvorfor læste Peter aldrig bogen?
why read Peter never book-the
b. *Hvorfor læste Peter bogen aldrig _____?

Likewise, syntactically complex pronouns, i.e. modified and conjoined ones, may undergo OS in Icelandic, see (56) and (57), while they cannot do so in MSc, see (58) and (59).

- (56) Ic a. Af hverju las Pétur aldrei þessa hérna?
why read Pétur never this here
b. Af hverju las Pétur þessa hérna aldrei _____? (Vikner 2005: 417)

- (57) Ic a. Ég þekki ekki hann og hana.
I know not him and her
b. Ég þekki hann og hana ekki _____. (Diesing & Jelinek 1993: 27)

- (58) Da a. Hvorfor læste Peter aldrig den her?
why read Peter never this here
b. *Hvorfor læste Peter den her aldrig _____? (Vikner 2005: 417)

- (59) Da a. Han så ikke dig og hende sammen.
he saw not you and her together
b. *Han så dig og hende ikke _____ sammen. (Diesing & Jelinek 1993: 27)

Whether or not movement of a "weak" pronoun, i.e. a non-modified, non-conjoined, non-focused one, takes place is subject to cross-linguistic variation. While in Icelandic and Danish, pronominal OS has to take place if possible, see (62) and (63), OS is optional in Swedish, (64), as well as in the south-eastern dialects of Danish, (65), and ungrammatical in Finland Swedish, (66), and in the Swedish dialect Älvdalsmålet, (67); see Levander (1909) and Hellan & Platzack (1999).

- (62) Ic a. *Af hverju las Pétur aldrei ____ hana?
why read Pétur never it
 b. Af hverju las Pétur hana aldrei ____ ____?
 (Vikner 2005: 394)

- (63) Da a. *Peter læste aldrig den.
Peter read never it
 b. Peter læste den aldrig ____.

- (64) Sw a. Jag såg inte den.
I saw not it
 b. Jag såg den inte ____.
 (Erteschik-Shir 2001: 54)

- (65) SD a. Du når såmænd 'nok odet.
you will.make indeed likely it
 (from Ærø, Pedersen 1993: 205)
 b. Nej, jeg tror 'ikke odet.
no I think not it
 (from Langeland, Pedersen 1993: 205)

- (66) FS a. Ja, ser du, jag vet inte det själv.
yes see you I know not it self
 b. *Ja, ser du, jag vet det inte ____ själv.
 (Bergroth 1917: 172)

- (67) Äl a. An såg int mig.
he saw not me
 b. *An såg mig int ____.
 (Levander 1909:124)

Hence, Icelandic and MSc differ in whether or not they allow OS of complex phrases: While both syntactically simple and complex phrases may undergo OS in Icelandic, only weak pronouns may be shifted in MSc. Moreover, full DP shift and pronominal OS in Icelandic differ in their obligatoriness: While OS of a weak pronoun is obligatory, (62), full DP shift is optional, see (54), (56), and (58).

Holmberg (1986) accounts for both this contrast in the applicability of OS to elements of different complexity and for HG in terms of case assignment (see also Vikner 1994 and Homberg & Platzack

1995). An object is obligatorily assigned case by V° if V° contains a verb, ruling out OS if the main verb stays *in situ*. However in case V° contains a trace of a verb, V° only assigns case optionally; in other words, if a verb has moved out of VP, it is possible for its object not to be assigned case by the verb trace, and therefore to move into a different position. According to Holmberg (1986: 208, 217), a shifted object is not assigned case at all: A shifted object has morphological case and, consequently, does not need to be assigned case syntactically. Permitting OS only for objects with morphological case, this hypothesis predicts the cross-linguistic contrast in its applicability to elements of different complexity: Icelandic differs from MSc in that morphological case is realised on all DPs in Icelandic whereas only pronouns are case-marked in MSc.

The necessity of morphological case for the availability of OS is apparently also supported by dialects that are able to use subject pronoun forms even as objects in certain contexts (e.g. Skellefteå in Sweden or Malax in Finland): Such "nominative" object pronouns may not undergo OS, whereas OS is possible in these dialects with pronouns that have the standard object pronoun form (accusative). In other words, a clearly case-marked form would seem to be a prerequisite for OS.⁵

- (68) Sw a. Maria ville kyssa jag / du / han / vi.
Maria wanted-to kiss I/ you/ he/ we
 b. Maria kysste inte jag.
Maria kissed not I
 c. *Maria_{SUB} kysste jag_{OBJ} inte ____.
 d. Maria kysste mej inte ____.
- (Holmberg 1986: 212)

⁵ Another potential problem for Holmberg's (1986) approach is that in Icelandic, the direct object does not always have accusative case, but may have one of the other three cases: The object is genitive in (i), it is dative in (ii), and it is even nominative in (iii) (where the subject is dative, see Sigurðsson 1989: 198-241 and Taraldsen 1995), while in (68)c nominative case prevented OS.

- (i) Ic a. Í gær leitaði Pétur sennilega ekki þessarar bókar.
yesterday looked-for Peter.NOM probably not this book.GEN
 b. Í gær leitaði Pétur sennilega þessarar bókar ekki ____.
 c. Í gær leitaði Pétur þessarar bókar sennilega ekki ____.
 (Vikner 1994: 512)
- (ii) Ic a. Í gær lýsti Pétur sennilega ekki þessari bók.
yesterday described Peter.NOM probably not this book.DAT
 b. Í gær lýsti Pétur sennilega þessari bók ekki ____.
 c. Í gær lýsti Pétur þessari bók sennilega ekki ____.
 (Vikner 1994: 512)
- (iii) Ic a. Í gær þykir þér sennilega ekki þessi bók skemmtileg.
yesterday thinks.3.SG you.SG.DAT probably not this book.DAT amusing.NOM
 b. Í gær þykir þér sennilega þessi bók ekki ____ skemmtileg.
 c. Í gær þykir þér þessi bók sennilega ekki ____ skemmtileg..
 (Vikner 2005: 414)

However, according to Jørgensen (2000), in the Swedish dialect from Umeå as well as in the Finland Swedish dialect from Västra Nyland, subject forms in object positions are only acceptable if they are contrastively stressed. The fact that these forms cannot undergo OS could then have to do with their prosodic properties (see (60) above).

- (69) U a. Har dom också frågat DU – dom har frågat mej?
have they also asked you they have asked me
 b. *Har dom också fragat du? (Jørgensen 2000: 206)

- (70) U a. Elsa tycker om DU – int' om jag.
Elsa cares for you – not for me
 b. *Elsa tycker om du. (Jørgensen 2000: 206)

Moreover, not all elements that have morphological case may also undergo OS: Full DP objects have morphological case in Faroese, and yet they may not undergo OS.⁶

- (71) Fa a. Jógvan keypti ikki bókina.
Jógvan bought not book-the.ACC
 b. *Jógvan keypti bókina ikki _____. (Barnes 1992: 28)

- (72) Fa a. *Jógvan keypti ikki hana.
Jógvan bought not it.ACC
 b. Jógvan keypti hana ikki _____. (Vikner 1994: 502)

⁶ According to Holmberg & Platzack (1995), morphological case in Faroese is of a weaker type such that DPs cannot OS: For example, a Faroese object does not retain oblique Case under passivization, in contrast to an Icelandic one.

- (i) Fa a. Teir hjálpti honum.
they helped him.DAT
 b. *Honum bleiv hjálpin _____.
him.DAT was helped
 c. Hann bleiv hjálpin _____.
he.NOM was helped (Holmberg & Platzack 1995: 173)

- (ii) Ic a. Þeir hjálpuðu honum.
they helped him.DAT
 b. Honum var hjálpað _____.
him.DAT was helped
 c. *Hann var hjálpað _____.
he.NOM was helped (Holmberg & Platzack 1995: 173)

However, if m-case needs to be strong for OS, then pronouns should only shift in Icelandic.

Furthermore, "strong", i.e. focused, modified, or conjoined, pronouns have morphological case in MSc, but cannot undergo OS, compare examples (58)-(60).

As will be shown in the next section, even the generalisation that morphological case is a necessary (though obviously not sufficient) condition for OS does not hold: pronominal adverbials which do not bear case can shift as well.

2.1.2 Adverbials

Not only arguments but also pronominal adverbials may undergo OS:⁷

- (73) Da a. ??Bor Peter ikke længere der?
lives Peter not longer there
 b. Bor Peter der ikke længere ___? (Vikner 2005: 422)

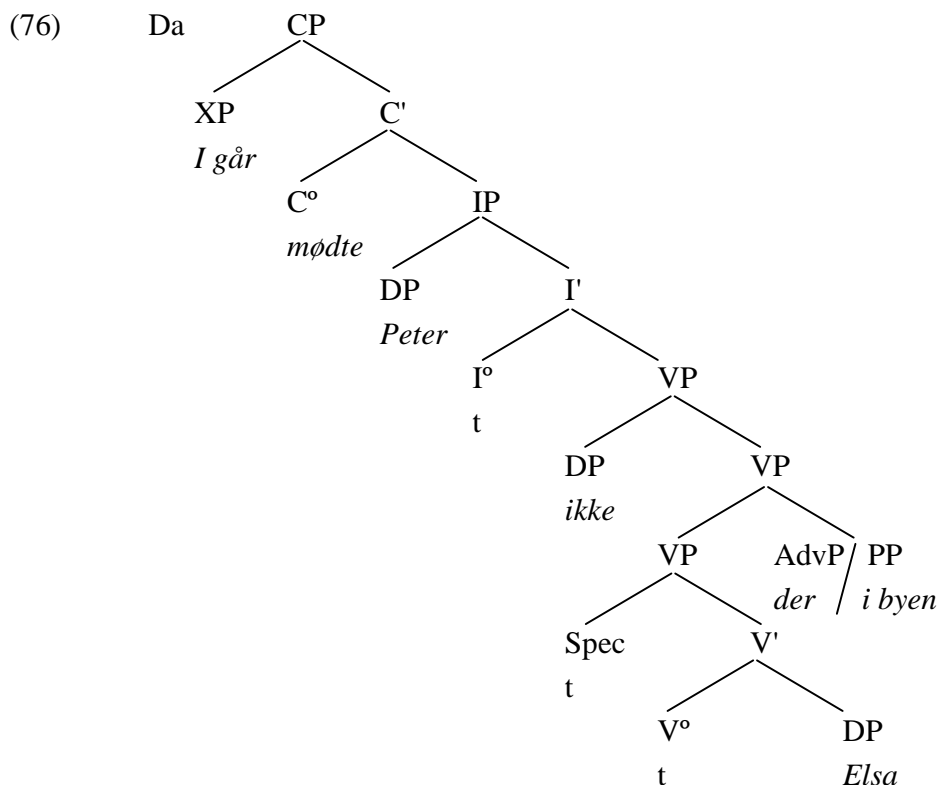
- (74) Da a. *Peter sov alligevel ikke der.
Peter slept after.all not there
 b. Peter sov der alligevel ikke _____. (Haider, Olsen, & Vikner 1995: 20)

- (75) Ic a. Býr Pétur ekki lengur þar?
lives Peter not longer there
 b. Býr Pétur þar ekki lengur ___? (Vikner 2005: 422)

⁷ However, note that not all pronominal adverbials may undergo OS, e.g. *nu* 'now' or *sådan* 'in this way, thus'. In German, by contrast, SCR of these adverbials is possible, see also section 2.2.2 below.

- (i) Da a. Jeg arbejder ikke nu.
I work not now
 b. *Jeg arbejder nu ikke ____.
- (ii) Da a. Jeg arbejder ikke sådan.
I work not in-this-way
 b. *Jeg arbejder sådan ikke ____.
- (iii) Ge a. ?Ich arbeite nicht jetzt.
I work not now
 b. Ich arbeite jetzt nicht ____.
- (iv) Ge a. Ich kann nicht so arbeiten.
I can not in-this-way work
 b. Ich kann so nicht ____ arbeiten

Under the assumption that a clause-final free adverbial is adjoined to the right of VP, as illustrated in (76), HG has to refer to the linear precedence rather than c-command: An object may undergo OS in the presence of a clause-final adverbial, see (77)b, while OS of an adverbial is only possible if there is no intervening object, (77)c. In (76), the object precedes the adverbial, but does not c-command it, while the adverbial c-commands the object but does not precede it.



- (77) Da a. I går mødte Peter ikke Elsa i byen.
 yesterday met Peter not Elsa in town-the
- b. I går mødte Peter hende ikke ___ i byen.
 yesterday met Peter her not in town-the
- c. *I går mødte Peter der ikke Elsa ____.
 yesterday met Peter there not Elsa

Similarly, *der* 'there' in (78) may undergo OS in the presence of the c-commanding, but following adverbial *i går* 'yesterday', but not in the presence of the non-c-commanding, but preceding adverbial *godt* 'well'.

- (78) Da a. Jeg sov ikke godt der i går.
I slept not well there yesterday
 b. Jeg sov der ikke ___ i går.
 c. *Jeg sov der ikke godt ___.

Like multiple OS of two pronominal arguments is possible and must maintain the order of arguments in Danish and Icelandic, OS of a pronominal adverbial may target a position to the left right of a shifted pronominal argument.

- (79) Da Peter havde troet at Sofie ville komme til receptionen, men
Peter had believed that Sofie wanted come to reception-the but
 a. han så hende der nu ikke ___ ____.
he saw her there just not
 b. *han så der hende nu ikke ___ ____.

Likewise, the example in (80) with a shifted pronominal argument and a subcategorized adverbial is acceptable.

- (80) Da a. Peter stiller ikke bøgerne op på hylden.
Peter puts not books-the up on shelf-the
 b. *Peter stiller ikke dem op på hylden.
 c. Peter stiller dem ikke ___ op på hylden.
 d. Peter stiller ikke bøgerne der.
 e. *Peter stiller der ikke bøgerne ____.
 f. Peter stiller dem der ikke ___ ____.

Note that in case a pronominal argument co-occurs with *der* 'there' in shifted position, as e.g. *hende der* 'her there' in (79), this sequence only allows for an interpretation as two constituents, argument + local adverbial [*hende*] [*der*], not as one constituent, i.e. not as adverbially modified pronoun [*hende der*]. This fact is not directly compatible with the assumption made by Vikner (1994), Christensen (2005) and many others that multiple OS is the result of movement of a more complex constituent: The complex constituent [*hende der*] comprising two pronominal elements cannot undergo OS, compare (58) above.

Though the pronominal adverbial *der* 'there' may undergo OS, a PP cannot shift, not even in Icelandic:

- (81) Ic a. Býr Pétur ekki lengur í Kaupmannahöfn?
lives Petur not longer in Copenhagen
 b. *Býr Pétur í Kaupmannahöfn ekki lengur _____? (Vikner 2005: 424)

Likewise, a modified pronominal adverbial cannot shift in Icelandic.

- (82) Ic a. Býr Pétur ekki lengur þarna vinstra megin?
lives Pétur not longer there left side
 b. *Býr Pétur þarna vinstra megin ekki lengur _____?

Furthermore, although a full DP argument may undergo OS in Icelandic, a DP adverbial cannot shift in Icelandic either - independent of whether it is free (83) or selected for (84).

- (83) Ic a. Pétur las hana örugglega allan daginn.
Pétur read it certainly every day
 b. *Pétur las hana allan daginn örugglega _____.
- (84) Ic a. Ökuferðin tók örugglega tvær stundir.
drive-the took certainly two hours
 b. *Ökuferðin tók tvær stundir örugglega _____.

Hence, there is a contrast between OS of weak pronominal elements and OS of more complex phrases in the applicability to elements with different grammatical functions: While pronominal OS may apply to any weak pronoun, irrespective of its grammatical function as argument or adverbial, OS of more complex phrases may only apply to arguments but not to adverbials in Icelandic and to none of them in MSc. In other words, Icelandic adverbials are apparently subject to the same restrictions as arguments in MSc: Only weak pronouns may shift.

	Ic	MSc
pronominal element	argument	√
	adverbial	√
complex phrase	argument	*
	adverbial	*

As argued in section 1.2.3, the difference in the ability to reverse the order of arguments in Dutch points to the conclusion that presumably two movement operations have to be distinguished according to syntactic complexity of the moved element, pronoun vs. complex phrase, due to the difference in their ability to reverse the order of arguments in Dutch. In Icelandic, these two movement operations obviously differ in their applicability to adverbials. Movement of complex adverbials may be ruled out in Icelandic by a corresponding prohibition against adverbial movement. As shown in the next section, complex adverbials, however, can undergo SCR in German, indicating that such a prohibition against adverbial movement must be violable: Adverbials may move in German irrespective of their syntactic complexity, whereas only pronominal adverbials can undergo OS.

2.2 Scrambling

2.2.1 Complexity

As mentioned in section 1.2, full DPs may precede or follow a sentential adverbial in German and Dutch, see (85) and (87) whereas pronouns have to precede it, (86) and (88).

(85) Ge a. Warum liest Peter nie das Buch ____?
 why reads Peter never the book

b. Warum liest Peter das Buch nie _____ ____?

(86) Ge a. *Warum liest Peter nie es ____?
 why reads Peter never it

b. Warum liest Peter es nie _____ ____?

(87) Du a. Jan heeft gisteren Marie gekust.
 Jan has yesterday Marie kissed

b. Jan heeft Marie gisteren _____ gekust.

(88) Du a. *Jan heeft gisteren 'r gekust.
 Jan has yesterday her kissed

b. Jan heeft 'r gisteren _____ gekust.

(Haegeman 1991: 32)

In the SCR languages, movement of a focused item is possible, irrespective of its phrasal status, pronoun vs. full DP.

(89) Ge a. Gestern traf Peter nicht PAUL (aber HANS).
 yesterday met Peter not PAUL but HANS

b. ?Gestern traf Peter PAUL nicht _____ (aber HANS).

(90) Ge a. Gestern traf Peter nicht IHN (sondern SIE).
 yesterday met Peter not HIM but HER

b. ?Gestern traf Peter IHN nicht _____, (sondern SIE).

(91) Du a. ... dat ik gisteren de jongen HET BOEK gegeven heb.
 that I yesterday the boys the book given have

b. ... dat ik HET BOEK gisteren de jongen _____ gegeven heb.

(De Hoop & Kosmeijer 1995: 150)

- (92) Du A: Heeft Jan_{SUB} nog nooit zijn moeder_{OBJ} gebeld?
has Jan yet never his mother called
 B: Nee, zijn moeder_{SUB} heeft HEM_{OBJ} nog nooit ___ gebeld.
no his mother has him yet never called

(Delfitto & Corver 1998: 321)

Note that in contrast to "neutral" SCR, movement of a focused object may reverse the order of arguments in Dutch.⁸

2.2.2 Adverbials

Similar to OS, SCR is not restricted to arguments. However in contrast to OS, SCR of adverbials may not only apply to pronominals in German, but also to (certain) complex adverbials and PPs.

- (93) Ge a. ... weil Hans wahrscheinlich nicht dafür bezahlen will.
because Hans probably not for.that pay wants.to
 b. ... weil Hans dafür wahrscheinlich nicht _____ bezahlen will.

⁸ Similarly, Italian focalization and clitic left dislocation differ in several respects: The former but not the latter gives rise to weak cross-over effects, (i), is restricted to place only one argument in clause-initial position, (ii), and is prohibited in infinitival and adjunct clauses, (iii) and (iv).

- (i) a. *GIANNI *suai madre ha sempre apprezzato (non Piero).*
Gianni his mother has always appreciated not Piero
 b. *Giannii, suai madre lui ha sempre apprezzato.* (Rizzi 1997: 290)
Gianni his mother him has always appreciated
- (ii) a. *A GIANNI IL LIBRO *darò (non a Piero, l'articolo).*
to Gianni the book I.will.give (not to Piero the article)
 b. *Il libro, a Gianni, domani, glielo darò senz'altro.* (Rizzi 1997: 290)
the book to Gianni, tomorrow to.him.it I.will.give for.sure
- (iii) a. *Ho deciso, IL TUO LIBRO *di rileggere (non il suo).*
I.have decided the your book to reread (not the his)
 b. *Ho deciso, il tuo libro, di rileggerlo.* (Haegeman 2002c: 11)
I.have decided the your book to reread.it
- (iv) a. *Se IL MIO LIBRO *riesci a leggere, supererai l'esame.*
if the my book you.manage to read you.will.pass the exam
 b. *Se il mio libro riesci a leggerlo, supererai l'esame.* (Haegeman 2002c: 12)
if the my book you.manage to read.it you.will.pass the exam

- (94) Ge a. ... weil Hans wahrscheinlich nicht für das Buch bezahlt.
because Hans probably not for the book pays
 b. ... weil Hans für das Buch wahrscheinlich nicht _____ bezahlt.
- (95) Ge a. ... weil wahrscheinlich an Weihnachten Hans hier
because probably at Christmas Hans here
 eine Rede hält.
a talk gives
 b. ... weil hier an Weihnachten wahrscheinlich _____ Hans ____
 eine Rede hält.

However, leftward movement of a PP in Dutch is subject to certain restrictions.

PP movement is only possible with a restricted set of adverbial phrases: The PP *op mijn opmerking* 'on my remarks' may move across an adverbial like *nauwelijks* 'hardly', (96), but not across an adverbial like *gisteren* 'yesterday', (97); in contrast, SCR of a DP across *gisteren* is possible, (98).

- (96) Du a. Jan heeft nauwelijks op mijn opmerking gereageerd.
Jan has hardly on my remarks reacted
 b. Jan heeft op mijn opmerking nauwelijks gereageerd.
 (Broekhuis 2006: 22)
- (97) Du a. Jan heeft gisteren op mijn opmerking gereageerd.
Jan has yesterday on my remarks reacted
 b. *Jan heeft op mijn opmerking gisteren gereageerd.
 (Broekhuis 2006: 22)
- (98) Du a. Ik heb gisteren dat boek gelezen.
I have yesterday that book read
 b. Ik heb dat boek gisteren _____ gelezen.
 (Broekhuis 2006: 22)

Under the assumption that PP movement in Dutch is an instance of focus movement, Dutch SCR is similar to Icelandic OS in that it cannot apply to complex adverbials.⁹

2.3 Summary

As shown in this chapter, there is cross-linguistic variation in which types of elements may undergo movement, weak pronouns vs. complex phrases, arguments vs. adverbials. All types of weak pronominal elements, i.e. arguments and adverbials, may undergo movement in all OS and SCR languages. Movement of complex phrases, by contrast, may only take place in certain languages: While it is prohibited in MSc, complex phrases may undergo movement in Icelandic and the SCR languages. However, while in German movement of a complex phrase is independent of its grammatical function, movement of complex phrases is restricted to DP arguments in Icelandic and Dutch.

Moreover, pronominal elements and complex phrases differ in the obligatoriness of movement. While movement of a weak pronoun is obligatory if possible (except for Swedish and some south-eastern dialects of Danish where pronoun movement is optional and the Swedish dialect Älvdalsmålet and Finland Swedish where pronoun movement is ungrammatical), movement of complex phrases seems to be optional in all languages that allow for this type of movement at all. Furthermore, it was shown in chapter 1 that pronominal elements and complex phrases in Dutch differ in their ability to move across an intervening argument.

⁹ The hypothesis that SCR of complex phrases is restricted to arguments in Dutch would seem to force us to assume that also movement of an adverbial like *gisteren* 'yesterday' to a position to the left of a sentential adverbial as in (i) represent instances of focus movement; but see also footnote 12.

- (i) Du a. Jan heeft waarschijnlijk gisteren Marie gekust.
 Jan has probably yesterday Marie kissed
 b. Jan heeft gisteren waarschijnlijk _____ Marie gekust.

			MSc	Ic	Du	Ge
availability of movement	pronominal element	argument	√	√	√	√
		adverbial	√	√	√	√
	complex phrase	argument	*	√	√	√
		adverbial	*	*	*	√
movement if verb is <i>in situ</i>	pronominal element	argument	*	*	√	√
		adverbial	*	*	√	√
	complex phrase	argument	-	*	√	√
		adverbial	-	-	-	√
movement across intervening element	pronominal element	argument	*	*	√	√
		adverbial	*	*	√	√
	complex phrase	argument	-	*	*	√
		adverbial	-	-	-	√

("-" indicates that movement would be ungrammatical anyway)

Under the assumption that the dependency of object movement on verb movement in the Scandinavian languages is due to a linear restriction, it may be treated on a par with the prohibition against movement across an intervening argument. In other words, there might be a more general prohibition against movement across a linearly intervening non-adverbial element. The fact that movement is independent of verb movement, but dependent on (the absence of) intervening arguments in Dutch (full DP SCR) while it is dependent on both in Icelandic and Danish would then just be a result of the contrast between VO and OV.

Hence, the data suggests that rather than differentiating movement devices according to language family (OS in the Scandinavian languages and SCR in the continental West Germanic languages), two movement devices should be distinguished according to the complexity of the moved element. The next chapter presents an OT approach to the cross-linguistic differences of these movement devices.

3 OT Approach to OS and SCR

3.1 Movement constraints

As shown in the last chapters, both the Scandinavian languages and the continental West Germanic languages may move elements to the left of a sentential adverbial. However, there is cross-linguistic variation with respect to

- how complex a moved element may be (weak pronominal vs. complex phrase),
- which grammatical function it may convey (argument vs. adverbial), and
- whether or not movement is blocked by an intervening element.

Since pronominal OS and full DP shift in Icelandic are subject to HG, these have often been analysed as instances of the same movement operation (e.g. Holmberg & Platzack 1995, Holmberg 1999). By contrast, the difference in the availability of movement in the presence of an *in situ* main verb has led many researchers to assume that OS and SCR are basically different movement operations (e.g. Vikner 1994, 2005). However, subjection to the same/different restriction(s) does not necessarily imply that we deal with the same/different movement device(s).

We will assume that there is no basic difference in the movement devices in the Scandinavian languages and the continental West Germanic languages – and derive their contrasts from differences in the language-specific constraint hierarchies. Rather than differentiating between OS and SCR, the asymmetry in the mobility of an adverbial pronoun vs. an adverbial complex phrase in Icelandic and Dutch as well as the asymmetry in the blocking effect of intervening arguments on pronoun movement vs. movement of complex phrases in Dutch points to the conclusion that movement operations for weak pronominal elements and complex phrases have to be distinguished; in other words, these movements have to be triggered by different constraints, SHIFT and SHIFTPRONOUN, see 3.1.1 and 3.1.2, respectively. Cross-linguistic variation in the mobility of elements of different complexity (pronouns vs. complex phrases, see 3.2.1), in the mobility of elements with different grammatical functions (argument vs. adverbial, see 3.2.2), and in the blocking effect of intervening elements (HG, see 3.2.3) is accounted for by contrasts in the ranking of these movement constraints with respect to various constraints on movement.

3.1.1 Movement of complex phrases

Movement of complex phrases was described as optional (if possible at all) in the previous sections: Complex phrases may precede or follow a sentential adverbial. Yet, the various sequences of sentential adverbials and arguments correlate with different information-structural interpretations; in other words, they are appropriate in different contexts.

- (105) Ge a. ... weil angeblich Peter Maria das Buch geklaut hat.
because allegedly Peter Maria the book pinched has
 b. ... weil Peter angeblich ____ Maria das Buch geklaut hat.
 c. ... weil Peter Maria angeblich ____ ____ das Buch geklaut hat.
 d. ... weil Peter Maria das Buch angeblich ____ ____ _____ geklaut hat.

Sentence adverbials are often described as sensitive to information structure, partitioning the clause into focus and background, with unfocused arguments having to precede the adverbial (see Jacobs 1986, Haftka 1988, Hetland 1992, 1993, Buring 1996, among others). Hence, movement of complex phrases is presumably not optional; rather defocused arguments have to scramble, whereas arguments that are (part of) the focus do not scramble. (Focused arguments may undergo focus movement which differs from SCR in several respects, see sections 1.2.3 and 2.2 above.) In other words, the apparent optionality results from differences in information structure.

Movement of defocused elements to a position to the left of a sentential adverbial can be triggered by the constraint SHIFT in (106)a. The constraint STAY in (106)b, by contrast, penalizes movement.

- (106) a. SHIFT: A [-foc] element precedes and c-commands the lowest VP (of the same clause) that contains all other VPs and all VP-adjoined adverbials.
 b. STAY: Trace is not allowed. (Grimshaw 1997: 374)

The influence of information structure on word order follows from the restriction of SHIFT to defocused elements. If an element is marked as [-foc] in the input, SHIFT requires it to move and to adjoin in a position to the left of all VP-adjoined adverbials. In contrast, an element that is not marked for [-foc] is not affected by SHIFT, and it is thus expected to remain in its base position following a sentential adverbial, due to STAY; see Tableau 1.¹⁰

¹⁰ Note that the requirement that a defocused element adjoin at the top of VP predicts that movement takes place even if it is string-vacuous (under the ranking ranking SHIFT >> STAY).

- (i) Ge [Warum ist Peter sauer auf dich? ‘Why is Peter mad with you?’]
 Weil ich dem Vollidioten das Auto geklaut habe.
because I the prize idiot the car stolen have

	SHIFT	STAY	ex.
a Comp Sub [_{VP} <u>DP-IO</u> _[-foc] DO V]	*!		(i)
☞ b Comp Sub [_{VP} <u>DP-IO</u> _[-foc] [_{VP} t _{IO} DO V]]		*	

Tableau 1

Ge:	SHIFT	STAY	Ex.
1a Comp Sub [_{VP} Adv [_{VP} <u>DP-IO</u> _[-foc] DO V]]	*!		-
☞ 1b Comp Sub [_{VP} <u>DP-IO</u> _[-foc] [_{VP} Adv [_{VP} t _{IO} DO V]]]		*	(105)c
☞ 2a Comp Sub [_{VP} Adv [_{VP} <u>DP-IO</u> DO V]]			(105)b
2b Comp Sub [_{VP} <u>DP-IO</u> [_{VP} Adv [_{VP} t _{IO} DO V]]]		*!	-

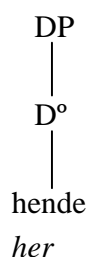
3.1.2 Movement of pronouns

As discussed above, movement of complex phrases and movement of pronouns have to be differentiated. Here, movement of pronouns will be considered to be a special instance of movement of defocused phrases; i.e. it is considered to be triggered by a more specific subconstraint of SHIFT, namely SHIFTPRONOUN, that is restricted to elements that are syntactically simple as captured by the additional condition that the element's phrasal status has to be "min = max".

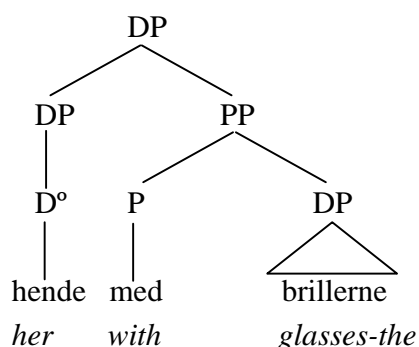
- (107) SHIFTPRONOUN: A [-foc] proform that is "min = max" precedes and c-commands the lowest VP (of the same clause) that contains all other VPs and all VP-adjoined adverbials.

Remember that only weak, i.e. unfocused, non-modified, non-conjoined, pronouns move in MSc. The fact that focused pronouns do not move is already captured by the restriction of SHIFT to [-foc] elements. Furthermore, a syntactically simple pronoun, (108)a, differs from a modified, (108)b, or conjoined one, (108)c, in that the phrasal status of the former but not the one of the latter two is "min = max".

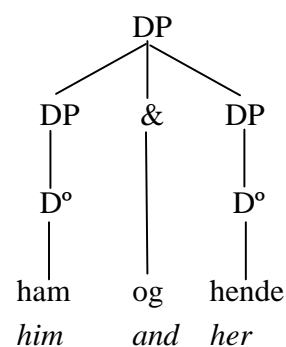
(108) a. simple pronoun



b. modified pronoun



c. conjoined pronoun



By "min = max", we thus mean that the amount of lexical material (i.e. phonologically visible material) dominated by the highest XP (here: DP) must be the same as the amount of lexical material dominated by the lowest X° (here: D°). This is fulfilled in (108)a, but not in (108)b,c. Hence, SHIFTPRON does not affect

modified or conjoined pronouns; they are thus expected to remain *in situ* due to STAY (>> SHIFT) in MSc.¹¹

Tableau 2

Da:	SHIFT PRON	STAY	SHIFT	ex.
1a Sub V [VP Adv [VP ... [DP=D° Pron-Obj]]]	*!		*	(63)a
☞ 1b Sub V [VP [DP=D° Pron-Obj] [VP Adv [VP ... t _{Obj}]]]		*		(63)b
☞ 2a Sub V [VP Adv [VP ... [DP≠D° Pron-Obj Mod]]]			*	(58)a
2b Sub V [VP [DP≠D° Pron-Obj Mod] [VP Adv [VP ... t _{Obj}]]]		*!		(58)b
☞ 3a Sub V [VP Adv [VP ... [DP≠D° Pron-Obj & Pron-Obj]]]			*	(59)a
3b Sub V [VP [DP≠D° Pron-Obj & Pron-Obj] [VP Adv [VP ... t _{Obj}]]]		*!		(59)b

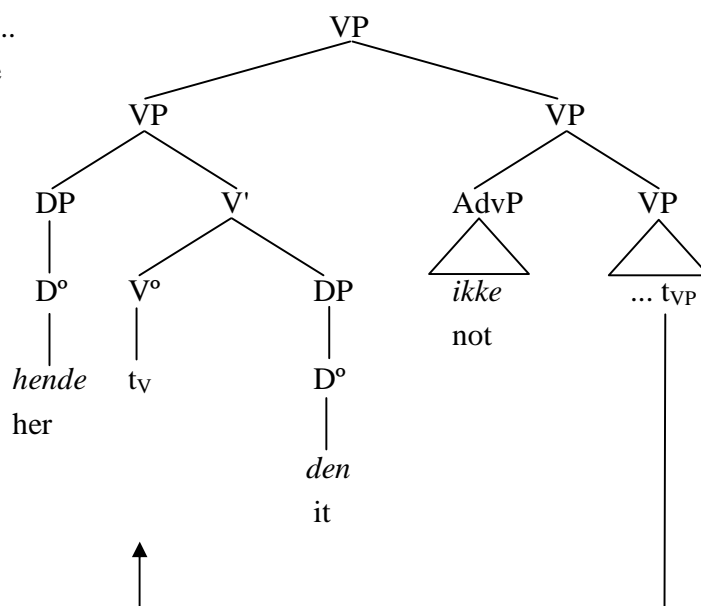
(Note that since SHIFTPRON is only a more specified version of SHIFT, SHIFT is always violated if SHIFTPRON is violated.)

The restriction of SHIFTPRON to syntactically simple elements (i.e. "min = max") predicts that multiple OS as in (33)c, (79)a, and (80)f above does not involve movement of one constituent including several pronouns; rather, each pronoun has to be moved separately: Movement of a complex constituent that contains several weak pronouns (that is: a phrase that is not "min = max" itself but rather includes several elements that are "min = max") does not satisfy SHIFTPRON; the elements that are "min = max" do not c-command the relevant VP themselves, compare (109)a and (109)b.

The formulation of SHIFT and SHIFTPRON is such that in multiple OS, cf. (109)b, both shifted objects fulfill the condition, in that both shifted objects precede and c-command the relevant VP.

¹¹ Note that there are elements which are "min = max" in the conjoined structure in (108)c, namely each single conjunct, and are thus expected to be able to move due to the ranking SHIFTPRON >> STAY. However, movement out of a conjoined structure represents an instance of an island violation.

(109) Da a. *Jeg gav...*
 I gave



b. *Jeg gav...*
 I gave

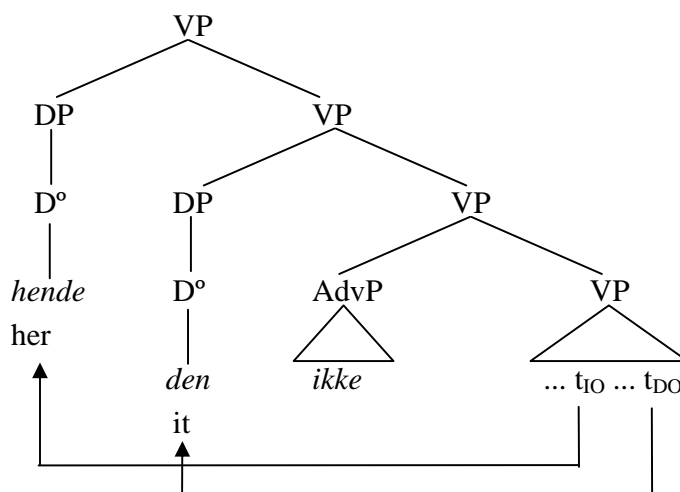


Tableau 3

Da:	SHIFT PRON	STAY	SHIFT	ex.
a Sub V [VP Adv [VP ... [DP=D° <u>Pron-IO</u>] [DP=D° <u>Pron-DO</u>]]]	*!*		**	-
b Sub V [VP [DP=D° <u>Pron-IO</u>] [VP Adv [VP ... t _{IO} [DP=D° <u>Pron-DO</u>]]]]]	*!	*	*	-
c Sub V [VP [VP ... [DP=D° <u>Pron-IO</u>] [DP=D° <u>Pron-DO</u>]]] [VP Adv t _{VP}]]]	*!*	*	**	(34)a/ (109)a
d Sub V [VP [DP=D° <u>Pron-IO</u>] [VP [DP=D° <u>Pron-DO</u>] [VP Adv [VP ... t _{IO} t _{DO}]]]]]		**		(34)a/ (109)b

3.2 Constraints on Movement

3.2.1 Complexity

As shown in section 2, there is cross-linguistic variation as to how much syntactic complexity a moved constituent may display: While in the SCR languages and Icelandic, both pronouns and complex phrases may move, movement of complex phrases is not possible in MSc. Moreover, these vary also with respect to whether or not pronoun movement is acceptable (and obligatory): While in Danish, Norwegian, and Icelandic pronominal OS is obligatory (if possible), it is only optional in Swedish as well as some south-eastern Danish dialects, and ungrammatical in the Swedish dialect Älvdalsmålet and Finland Swedish, compare section 2.1.1. This cross-linguistic variation can be accounted for by differences in the language-specific ranking of SHIFT and SHIFTPRON with respect to the constraint STAY which penalizes movement.

In languages/dialects where neither complex phrases nor pronouns may undergo movement, STAY outranks both SHIFT and SHIFTPRON.

Tableau 4

Äl/FiSw:	STAY	SHIFT PRON	SHIFT	ex.
☞ 1a Sub V [VP Adv [VP ... <u>DP-Obj</u> _[-foc]]]			*	-
1b Sub V [VP <u>DP-Obj</u> _{[-foc]] [VP Adv [VP ... t_{Obj}]]]}	*!			-
☞ 2a Sub V [VP Adv [VP ... <u>Pron-Obj</u> _[-foc]]]		*	*	(66)a, (67)a
2b Sub V [VP <u>Pron-Obj</u> _{[-foc]] [VP Adv [VP ... t_{Obj}]]]}	*!			(66)b, (67)b

In Swedish and the south-eastern Danish dialects where pronominal OS is optional, STAY and SHIFTPRON might be tied, STAY <> SHIFTPRON: Both relative rankings of the two constraints, STAY >> SHIFTPRON and SHIFTPRON >> STAY, co-exist in these languages; depending on the actual ranking, movement is required or prohibited, accounting for its optionality. (In terms of Müller's (2001) classification of constraint ties, we are here dealing with an ordered global tie.) Movement of complex phrases is ruled out by the unambiguous ranking STAY >> SHIFT.

Tableau 5

Sw/SD:	STAY	SHIFT PRON	SHIFT	ex.
☞ 1a Sub V [VP Adv [VP ... <u>DP-Obj</u> _[-foc]]]			*	-
1b Sub V [VP <u>DP-Obj</u> _{[-foc]] [VP Adv [VP ... t_{Obj}]]]}	*!			
☞ 2a Sub V [VP Adv [VP ... <u>Pron-Obj</u> _[-foc]]]		*	*	(64)a
☞ 2b Sub V [VP <u>Pron-Obj</u> _{[-foc]] [VP Adv [VP ... t_{Obj}]]]}	*			(64)b

In languages like Danish and Norwegian where OS of complex phrases is ungrammatical, but OS of weak pronominal elements is obligatory (if possible), SHIFTPRON outranks STAY which in turn outranks SHIFT.

Tableau 6

Da/No:	SHIFT PRON	STAY	SHIFT	ex.
☞ 1a Sub V [VP Adv [VP ... <u>DP-Obj</u> _[-foc]]]			*	(55)a
1b Sub V [VP <u>DP-Obj</u> _{[-foc]] [VP Adv [VP ... t_{Obj}]]]}		*!		(55)b
2a Sub V [VP Adv [VP ... <u>Pron-Obj</u> _[-foc]]]	*!		*	(63)a
☞ 2b Sub V [VP <u>Pron-Obj</u> _{[-foc]] [VP Adv [VP ... t_{Obj}]]]}		*		(63)b

And finally, in languages that allow both movement of pronominal elements and complex phrases, like the SCR languages and Icelandic, both SHIFT and SHIFTPRON outrank STAY.

Tableau 7

Ic/Ge/Du:	SHIFT PRON	SHIFT	STAY	ex.
1a Sub V [VP Adv [VP ... <u>DP-Obj</u> _[-foc]]]		*!		-
☞ 1b Sub V [VP <u>DP-Obj</u> _{[-foc]] [VP Adv [VP ... t_{Obj}]]]}			*	(6)b, (36)b
2a Sub V [VP Adv [VP ... <u>Pron-Obj</u> _[-foc]]]	*!	*		(7)a, (37)b
☞ 2b Sub V [VP <u>Pron-Obj</u> _{[-foc]] [VP Adv [VP ... t_{Obj}]]]}			*	(7)a, (37)b

In summary, the cross-linguistic variation in the availability of movement for elements of different syntactic complexity can be accounted for by differences in the ranking of STAY relative to SHIFTPRON and SHIFT. Figure 1 shows the different rankings of STAY.

Figure 1

Äl/FiSw:	STAY >> SHIFTPRON >> >> SHIFT
Sw/SD:	STAY <> SHIFTPRON >> >> SHIFT
Da/No:	SHIFTPRON >> STAY >> SHIFT
unattested:	SHIFTPRON >> STAY <> SHIFT
Ic/Du/Ge:	SHIFTPRON >> >> SHIFT >> STAY

Since SHIFTPRON is a specialized subconstraint of SHIFT, the account presented here predicts that there cannot be a language in which only movement of a syntactically complex phrase is possible while syntactically simple pronominal elements cannot move: Even under the ranking SHIFT >> STAY >> SHIFTPRON, both complex phrases and syntactically simple elements are expected to move.

Out of the five logically possible types of languages, only one is unattested: A language in which weak pronouns move obligatorily while movement of defocused complex phrases is optional.

3.2.2 *Argument vs. Adverbial*

The previous section showed how the contrast between MSc, on the one hand, and Icelandic, Dutch, and German, on the other hand, in the availability of movement for complex phrases can be accounted for by the different rankings of the constraint STAY. However, remember that not all types of complex phrases may undergo movement in the latter three languages: While Icelandic and Dutch allow movement of complex phrases only for DP arguments, both complex arguments and adverbials may move in German. In all languages that allow movement of weak pronominal arguments, also weak pronominal adverbials may move. In other words, the movement devices for pronouns and complex phrases differ in their applicability to adverbials in Icelandic and Dutch.

The prohibition against movement of adverbials may be considered to result from a more specified version of STAY:¹²

- (110) STAYADVERBIAL: Trace of an adverbial is not allowed (regardless of its syntactic category – AdvP, PP, DP).

¹² In case STAYADVERBIAL is differentiated according to the syntactic category of the adverbial, it is possible to consider PP movement as an instance of focus movement, as suggested by Broekhuis (2006), while movement of e.g. a temporal adverb might be an instance of SCR (STAYADVERBIAL-PP >> SHIFT >> STAYADVERBIAL-ADV); compare note 9 above.

In all the languages under consideration, SHIFTPRON outranks STAYADV: If pronominals are able to undergo movement at all (compare Älvdalsmålet and Finland Swedish, Tableau 4), they move irrespective of their grammatical function, argument or adverbial.

The relative ranking between SHIFT and STAYADV, by contrast, differs in the various languages: In Icelandic (and the other Scandinavian languages¹³) as well as in Dutch, STAYADV outranks SHIFT: The grammatical function of a complex phrase is crucial for whether or not it can move, while all types of pronominals may move.

Tableau 8

Ic/Du:	SHIFT PRON	STAY ADV	SHIFT	STAY	Ex.
1a Sub V Adv <u>Pron-Obj</u> _[-foc]	*!		*		(7)a, (88)a
☞ 1b Sub V <u>Pron-Obj</u> _[-foc] Adv t _{Obj}				*	(7)b, (88)b
2a Sub V Adv <u>Pron-Adv</u> _[-foc]	*!		*		(75)a (!!)
☞ 2b Sub V <u>Pron-Adv</u> _[-foc] Adv t _{Adv}		*		*	(75)b
3a Sub V Adv <u>DP-Obj</u> _[-foc]			*!		-
☞ 3b Sub V <u>DP-Obj</u> _[-foc] Adv t _{Obj}				*	(6)b, (87)b
☞ 4a Sub V Adv <u>XP-Adv</u> _[-foc]			*		(81)a-(84)a, (99)a
4b Sub V <u>XP-Adv</u> _[-foc] Adv t _{Adv}		*!		*	(81)b-(84)b, (99)b

In German, by contrast, both syntactically simple elements and complex phrases may move to a position to the left of a sentential adverbial, irrespective of their grammatical function. These facts can be accounted for by the dominance of SHIFTPRON and SHIFT over STAYADV (and STAY).

¹³ Since STAY outranks SHIFT in MSc, the ranking of the more specified constraint STAYADV with respect to SHIFT is not crucial: Movement of a complex phrase is ungrammatical anyway, independent of its grammatical function, argument or adverbial.

Tableau 9

Ge:		SHIFT PRON	SHIFT	STAY ADV	STAY	ex.
	1a Sub V Adv <u>Pron-Obj</u> _[-foc]	*!	*			(37)a
☞	1b Sub V <u>Pron-Obj</u> _[-foc] Adv t _{Obj}				*	(37)b
	2a Sub V Adv <u>Pron-Adv</u> _[-foc]	*!	*			-
☞	2b Sub V <u>Pron-Adv</u> _[-foc] Adv t _{Adv}			*	*	(93)b
	3a Sub V Adv <u>DP-Obj</u> _[-foc]		*!			-
☞	3b Sub V <u>DP-Obj</u> _[-foc] Adv t _{Obj}				*	(36)b
	4a Sub V Adv <u>XP-Adv</u> _[-foc]		*!			-
☞	4b Sub V <u>XP-Adv</u> _[-foc] Adv t _{Adv}			*	*	(94)b, (95)b

Figure 2 shows the various rankings of STAYADV that account for the influence of grammatical category on the mobility of elements of different complexity.

Figure 2

Da:	SHIFTPRON >> STAYADV, STAY >> SHIFT
Ic/Du:	SHIFTPRON >> STAYADV >> SHIFT >> STAY
Ge:	SHIFTPRON >> SHIFT >> STAYADV, STAY

3.2.3 Holmberg's Generalisation

Finally, there is cross-linguistic variation as to whether or not movement may cross intervening non-adverbial elements. As discussed in section 1.1, movement in the Scandinavian languages is only possible if there is no intervening element (verb, particle, IO), irrespective of the phrasal status of the moved constituent, pronoun or full DP. By contrast, pronouns differ from full DPs in Dutch in that the former but not the latter are able to move across an intervening element, resulting in reversal of the order of arguments. (Since Dutch is OV, verbs and particles never intervene between a scrambled element and its trace; consequently only an IO may arise as intervening element.) In German, none of the movement devices is blocked by an intervening element.

As discussed above, the cross-linguistic variation in the blocking effect of an intervening element can be accounted for if HG is taken to be violable and to refer to linear order rather than c-command. Moreover, since multiple movement should also not change the order of elements in Danish, Icelandic, and Dutch, compare (34), (35), and (53) above, the corresponding constraint is taken not only to prohibit movement across a non-adverbial VP-internal element, as stated by Holmberg's (1997) definition in (20)

above, but movement across any linearly intervening non-adverbial element. In other words, movement is required to retain the order of non-adverbial elements.

(111) HOLMBERG'S GENERALISATION (HG):

If the foot of the chain of some non-adverbial element α precedes the foot of the chain of some element β , the head of the chain of α also precedes the head of the chain of β .¹⁴

In the Scandinavian languages, HG outranks both SHIFTPRON and SHIFT, prohibiting movement of elements of any complexity (if possible at all) in case there is a linearly intervening non-adverbial element. As a result, OS is expected to depend on verb movement: Since the Scandinavian languages are VO-languages, i.e. the main verb precedes the object in base structure, an *in situ* verb blocks OS due to the violation of HG: Object movement would give rise to a structure in which the verb *in situ* follows the object at the surface. OS may thus only take place if the main verb has moved itself such that the head of the verb's chain precedes the head of the chain of the shifted element. Remember that Icelandic differs from MSc not only in that also full DPs may undergo OS in Icelandic but also in that head movement of the finite verb also takes place in embedded clauses, compare section 1.1.1 above.

¹⁴ Since the constraint HG refers to precedence relations rather than to c-command relations, all constituents within an adverbial have to count as adverbial: The DP *ingen omstændigheder* 'no circumstances' within the adverbial PP *under ingen omstændigheder* 'under no circumstances' does not block pronoun movement in (ii). This is only expected if the DP is considered to be adverbial as well; otherwise HG would rule out movement of the pronoun across the intervening DP.

(i)	Da	a.	Jeg	læser		under ingen omstændigheder	<u>bøgerne</u> .
			<i>I</i>	<i>read</i>		<i>under no circumstances</i>	<i>books-the</i>
		b.	*Jeg	læser	<u>bøgerne</u>	under ingen omstændigheder	_____.
(ii)	Da	a.	*Jeg	læser		under ingen omstændigheder	<u>dem</u> .
			<i>I</i>	<i>read</i>		<i>under no circumstances</i>	<i>them</i>
		b.	Jeg	læser	<u>dem</u>	under ingen omstændigheder	_____.

Tableau 10

Da:	HG	SHIFT PRON	STAY ADV	STAY	SHIFT	ex.
☞ 1a Sub Aux Adv <u>V</u> <u>Pron-Obj</u> _[-foc]		*			*	(12)a
1b Sub Aux <u>Pron-Obj</u> _[-foc] Adv <u>V</u> t _{Obj}	*!			*		(12)b
☞ 2a Comp Sub Adv <u>V</u> <u>Pron-Obj</u> _[-foc]		*			*	(3)a
2b Comp Sub <u>Pron-Obj</u> _[-foc] Adv <u>V</u> t _{Obj}	*!			*		(3)b
3a Sub <u>V</u> Adv t _v <u>Pron-Obj</u> _[-foc]		*!			*	(2)a
☞ 3b Sub <u>V</u> <u>Pron-Obj</u> _[-foc] Adv t _v t _{Obj}				*		(2)b

Tableau 11

Ic:	HG	SHIFT PRON	STAY ADV	SHIFT	STAY	Ex.
☞ 1a Sub Aux Adv <u>V</u> <u>DP-Obj</u> _[-foc]				*		(14)a
1b Sub Aux <u>DP-Obj</u> _[-foc] Adv <u>V</u> t _{Obj}	*!				*	(14)b
2a Comp Sub <u>V</u> Adv t _v <u>DP-Obj</u> _[-foc]				*!		-
☞ 2b Comp Sub <u>V</u> <u>DP-Obj</u> _[-foc] Adv t _v t _{Obj}					*	(8)b
3a Sub <u>V</u> Adv t _v <u>DP-Obj</u> _[-foc]				*!		-
☞ 3b Sub <u>V</u> <u>DP-Obj</u> _[-foc] Adv t _v t _{Obj}					*	(6)b

Furthermore, the ranking $HG \gg \text{SHIFTPRON}$, SHIFT predicts that OS may not reverse the order of arguments: Neither can a DO shift across an *in situ* IO nor can it be placed in front of a shifted IO. OS of a DO is, however, acceptable in double object constructions if the IO moves itself (by *wh*-movement, topicalisation, or OS) and targets a position to the left of the shifted DO such that the relative order between the arguments is retained, as required by HG.^{15, 16}

¹⁵ Note that in the present analysis, multiple OS does not necessarily involve a violation of Chomsky's (1993) Extension Principle, as approaches that categorically exclude movement across an intervening element have to assume; see e.g. Holmberg 1997, 1999: If movement may never cross an intervening element, movement of the DO targets a lower position than previous movement of the IO. In the analysis presented here, by contrast, movement of a DO across an IO is not ruled out as such by the ranking $HG \gg \text{SHIFTPRON}$, SHIFT ; it is possible as long as at the surface, IO precedes DO again. Hence, the order of movement application does not matter.

¹⁶ Remember that SHIFT and SHIFTPRON only require precedence and c-command of the relevant VP but not movement to a particular position. HG predicts that a shifted constituent adjoins to VP rather than to IP where it would precede the subject (given that the trace of the subject precedes the trace of the object).

Of course, other types of movement, such as *wh*-movement or topicalisation, do not have to maintain the order of arguments in the Scandinavian languages and do not depend on verb movement. This can be accounted for by ranking the constraints that trigger these types of movement, WHSPEC and TOPIC , above HG.

Tableau 12

Da/Sw:	HG	SHIFT PRON	STAY ADV	STAY	SHIFT	ex.
☞ 1a Sub V Adv <u>DP-IO</u> <u>Pron-DO</u>		*			*	(32)a
1b Sub V <u>Pron-DO</u> Adv <u>DP-IO</u> t _{DO}	*!			*		(32)a
2a <u>IO</u> V Sub Adv t _{IO} <u>Pron-DO</u>		*!			*	-
☞ 2b <u>IO</u> V Sub <u>Pron-DO</u> Adv t _{IO} t _{DO}				*		(33)b
3a Sub V Adv <u>Pron-IO</u> <u>Pron-DO</u>		**			**	-
3b Sub V <u>Pron-IO</u> Adv t _{IO} <u>Pron-DO</u>		*		*	*	-
3c Sub V <u>Pron-DO</u> <u>Pron-IO</u> Adv t _{IO} t _{DO}	*!			**		(34)b
☞ 3d Sub V <u>Pron-IO</u> <u>Pron-DO</u> Adv t _{IO} t _{DO}				**		(34)a

While in the Scandinavian languages OS may never violate HG, it depends on the complexity of the moved element whether or not movement may cross an intervening argument in Dutch: The order of arguments cannot be reversed by movement of a full DP, whereas a pronoun may move across another argument, pointing to the ranking SHIFTPRON >> HG >> SHIFT.¹⁷

-
- (i) Da a. Jeg har ikke givet Elsa bogen.
I have not given Elsa book-the
 b. Elsa har jeg ikke givet ___ bogen.
 c. Bogen har jeg ikke givet Elsa ____.
- (ii) Da a. Hvem har du givet ___ bogen?
who have you given ___ book-the
 b. Hvad har du givet Elsa ____?
what have you given Elsa

¹⁷ The constraint SHIFT applies to defocused phrases only. However, as mentioned in section 1.2.3, also focused elements may undergo movement to a position to the left of a sentential adverbial in the SCR languages, indicating that there is an additional constraint that may trigger leftward movement of a focused constituent, FOCUS. Focus movement differs from neutral SCR in Dutch in that it may reverse the order of arguments, compare (53) above. Moreover, remember that according to Broekhuis (2006), PP movement involves focus movement rather than SCR in Dutch. This suggests that in contrast to SHIFT, FOCUS outranks both HG and STAYADV in Dutch. (Since not all focused constituents undergo leftward movement, it is possible that there are other ways than movement to avoid a violation of FOCUS. For a detailed account to focus positions see e.g. Samek-Lodovici 1998, 2005.)

Tableau 13

Du:	SHIFT PRON	HG	STAY ADV	SHIFT	STAY	Ex.
☞ a Comp Sub Adv <u>DP-IO DP-DO</u> _[-foc] V				*		(53)a
b Comp Sub DP-DO _[-foc] Adv <u>DP-IO</u> t _{DO} V		*!			*	(53)d
a Comp Sub Adv <u>DP-IO Pron-DO</u> _[-foc] V	*!			*		(51)a
☞ b Comp Sub <u>Pron-DO</u> _[-foc] Adv DP-IO t _{DO} V		*			*	(51)b

The fact that an intervening element does not block movement in German, irrespective of the syntactic complexity of the moved element, can be accounted for by the dominance of both SHIFTPRON and SHIFT over HG.

Tableau 14

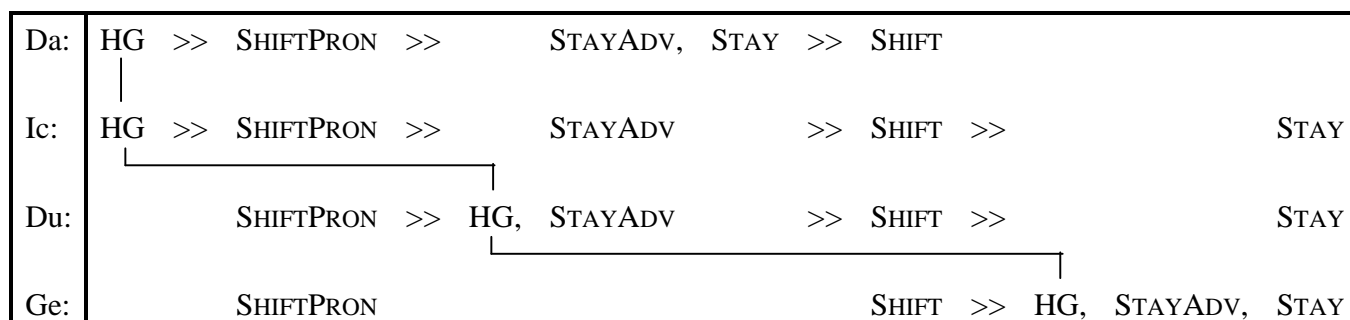
Ge:	SHIFT PRON	SHIFT	HG	STAY ADV	STAY	Ex.
a Comp Sub Adv <u>DP-IO DP-DO</u> _[-foc] V		*!				-
☞ b Comp Sub <u>DP-DO</u> _[-foc] Adv <u>DP-IO</u> t _{DO} V			*		*	(49)b
a Comp Sub Adv <u>DP-IO Pron-DO</u> _[-foc] V	*!	*				-
☞ b Comp Sub <u>Pron-DO</u> _[-foc] Adv <u>DP-IO</u> t _{DO} V			*		*	-

The fact that in contrast to the Scandinavian languages, object movement never depends on movement of the main verb in the continental West Germanic languages results from the linear conception of HG: Due to the difference in basic verb placement (VO in Scandinavian, OV in continental West Germanic), the two types of languages differ in whether or not an *in situ* main verb would linearly intervene between a shifted element and its trace, and, consequently, whether it may have a blocking effect on movement, as expected by HG. In the continental West Germanic languages, the main verb is simply never in a position that could block object movement.¹⁸

Figure 3 illustrates the different rankings of HG that capture the blocking effect of intervening elements on movement of constituents of different complexity.

¹⁸ Obviously, the constraint(s) responsible for V2 must outrank HG in all Germanic languages: A finite main verb is placed in second position in main clauses even if this results in a reversal of the basic order between the verb and its arguments.

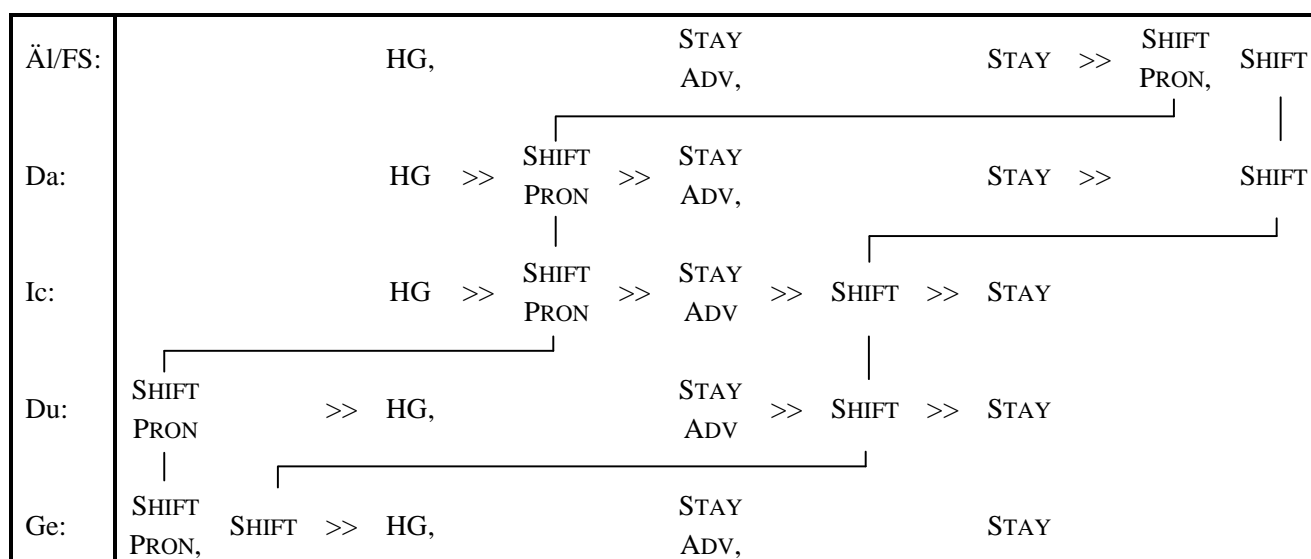
Figure 3



3.3 Summary

As shown in the previous sections, OT permits an account of the movement of some element to a position to the left of a sentential adverbial in the Scandinavian languages and the continental West Germanic in a uniform fashion. Cross-linguistic contrasts result from differences in the constraint rankings, as illustrated in Figure 4.

Figure 4



Appendix: Remnant VP-Topicalisation and OS

As shown in (19) above, repeated in (112), OS is possible in clauses with a non-finite main verb if the verb occurs in clause-initial position.

- (112) Sw a. Kysst har jag henne inte ___ ___ (bara hållit henne i handen).
kissed have I her not only held her by hand-the
 (Holmberg 1997: 205)
- Da b. Kysset har jeg hende ikke ___ ___ (bare holdt hende i hånden).
kissed have I her not only held her in hand.the
 (Vikner 2005: 407)
- Ic c. Kysst hef ég hana ekki ___ ___ (bara haldið í höndina á henni).
kissed have I her not only held in hand.the on her
 (Vikner 2005: 431)

Holmberg (1997, 1999) assumes that HG is due to the filter in (113) that permits pronominal objects in front of an adverbial only if no phonological material follows.

- (113) *Object Adverb X, unless X is phonologically empty. (Holmberg 1997: 206)

The fact that OS of an infinitival clause subject across a non-finite main verb as in (114)b cannot be rescued by subsequent VP-topicalisation (115)b leads Holmberg to suggest that the filter in (113) may not be violated at any point in the course of derivation.¹⁹

¹⁹ Note that not just pronominal objects may be left behind when the verb occurs in clause-initial position, but – according to Holmberg (1999: 10) – also epithetic DPs may be stranded. "V-Topicalization requires narrow contrastive focus on V, and is therefore most natural when other VP-constituents are 'defocused', in which case they are most naturally referred to by pronouns. [...] In terms of information structure a pronominal epithet is equal to a pronoun, but with regard to Object Shift, they behave like full DPs, i.e. they are generally not shifted in MSc. [...] [(i)a] featuring a pronominal epithet as object should be as well-formed as (112)a, which indeed it is" (Holmberg 1999: 10).

- (i) Sw a. Sett har jag inte den idioten, (men jag har talat med honom på telefon).
seen have I not that idiot but I have talked with him on phone
 b. *Sett har jag den idioten inte _____, (men jag har talat med honom på telefon)
 (Holmberg 1999: 11)

However, stranding of a full DP is not only possible for epithetic ones: non-epithetic DPs may be left behind if focused.

- (ii) Da Kysset har jeg ikke MARIE, men SOPHIE.
kissed have I not Marie but Sophie

The fact that full DPs can be stranded although they cannot undergo OS apparently supports Holmberg's (1999) claim that these sentences involve V^o-topicalisation rather than remnant VP-topicalisation.

- (114) Sw a. Jag har inte sett [_{IP} henne arbeta]
I have not seen her work
 b. *Jag har henne inte sett [_{IP} _____ arbeta]
 c. Jag såg henne inte _____ [_{IP} _____ arbeta]
I saw her not work (Holmberg 1997: 206)

- (115) Sw a. Sett henne arbeta har jag inte.
seen her work have I not
 b. *Sett _____ arbeta har jag henne inte. (Holmberg 1997: 206)

Holmberg (1997, 1999) concludes that the sentences in (112) must be derived by V°-topicalisation, with subsequent OS (compare (116) below) and cannot involve OS prior to (remnant) VP-topicalisation, see (117).²⁰

(116) V°-topicalisation? Holmberg (1997, 1999): YES!

- Sw a. [_{CP} _____ har [_{IP} jag [_{VP1} inte [_{VP2} kysst henne]]]]
 b. [_{CP} [_{V°} Kysst] har [_{IP} jag [_{VP1} inte [_{VP2} _____ henne]]]]
 c. [_{CP} [_{V°} Kysst] har [_{IP} jag henne [_{VP1} inte [_{VP2} _____ _____]]]]
-

(117) Remnant VP-topicalisation? Holmberg (1997, 1999): NO!

- Sw a. [_{CP} _____ har [_{IP} jag [_{VP1} inte [_{VP2} kysst henne]]]]
 b. [_{CP} _____ har [_{IP} jag henne [_{VP1} inte [_{VP2} kysst _____]]]] **violation of HG!!!**
 c. [_{CP} [_{VP2} Kysst _____] har [_{IP} jag henne [_{VP1} inte _____]]]
-

²⁰ Note that OS in the V°-topicalisation analysis is countercyclical: It targets a lower position than the previous movement of V°, violating Chomsky's (1993) Extension Principle (unless OS is adjunction and the Extension Condition is restricted to specifier positions / substitution).

Moreover, the V°-topicalisation analysis involves movement of a X° to XP-position.

However, if V°-topicalisation would be possible, we would expect the sentences in (118)b-(121)b to be acceptable, contrary to fact.

- (118) Da a. Jeg har ikke smidt den ud.
I have not thrown it out
 b. *Smidt har jeg den ikke ____ ____ ud.
- (119) Da a. Jeg har aldrig læst den højt.
I have never read it aloud
 b. *Læst har jeg den aldrig ____ ____ højt.
- (120) Da a. Jeg har ikke stillet det på bordet.
I have not put it on table-the
 b. *Stillet har jeg det ikke ____ ____ på bordet.
- (121) Da a. Jeg har ikke sendt dem hjem.
I have not sent them home
 b. *Sendt har jeg dem ikke ____ ____ hjem.

Against Holmberg (1997, 1999), we would like to suggest that remnant VP-topicalisation is possible, though it is subject to certain restrictions.

Asymmetry I: Stranding of IO vs. Stranding of DO

As Fox & Pesetsky (2005) mentions, remnant VP-topicalisation is possible in Swedish under certain conditions: In double object constructions, topicalisation of a non-finite main verb may take along the IO, stranding the DO in shifted position, (122)a. By contrast, stranding of an IO pronoun alone is not possible, (122)b. Moreover, both objects may be taken along or left behind together, (123).

- (122) Sw a. ?[_{VP} Gett henne ____] har jag den inte. (Fox & Pesetsky 2005: 25)
given her have I it not
 b. * [_{VP} Gett ____ den] har jag henne inte.
- (123) Sw a. [_{VP} Lånat Peter någon bok] har jag inte.
lent Peter any book have I not
 b. [_{VP} Lånat ____ ____] har jag honom den inte.
lent have I him it not

(Gunlög Josefsson, p.c.)

- (124) Da a. [VP Givet hende det] har jeg ikke.
 given her it have I not
 b. ?[VP Givet ____ _] har jeg hende det ikke.

According to Fox & Pesetsky (2005), the relative order of elements at one Spell-out phase may not be changed on another Spell-out phase, predicting that if IO precedes DO at the VP-phase (i.e. inside VP), it must also do so at the CP-phase (i.e. inside CP). *Wh*-movement or topicalisation which are not subject to HG must thus involve successive cyclic movement; the constituent moves to the the edge of VP so that subsequent *wh*-movement/topicalisation does not give rise to contradictory ordering statements.

The linear conception of HG suggested in the present analysis predicts the asymmetry in (122): Under the ranking HG >> SHIFTPRON (>> SHIFT), OS is expected to be possible as long as the precedence relations among non-adverbial elements are maintained.^{21, 22, 23} Hence, in contrast to Holmberg (1997, 1999), our OT approach predicts that OS may move an element across intervening constituents as long as these constituents (subsequently) move to a position to the left of the shifted element themselves such that the ordering relations are maintained, compare Tableau 15 with Tableau 16 below.

- (125) TOPIC: Elements with a [+top] feature occur in Spec,CP.

²¹ Note that remnant VP-topicalisations support the hypothesis that HG refers to precedence rather than c-command relations: While the precedence relations are maintained in (122)a, the c-command relations are not – the verb and the IO do not c-command the shifted DO.

²² Dominance of WHSPEC and TOPIC over HG predicts that *wh*-movement and topicalisation are not blocked by intervening non-adverbial elements. In this respect, the present approach avoids one of the shortcomings of Fox & Pesetsky's (2005) approach. Though their approach predicts that movement operations that may change the base order (differentiating OS from both A-movements such as subject movement as well as A'-movements such as *wh*-movement or topicalisation) have to proceed in a successive cyclic fashion, i.e. that these movements have to go through the edge of VP in order to prevent contradictory ordering statements, it says nothing about when movement through the edge of VP is possible. In other words, the question left open is what exactly prevents object shift from going through the edge of VP and thereby being allowed to violate HG.

²³ In German, there is also an asymmetry in stranding IO vs. DO by remnant VP-topicalisation. However, it goes in the opposite direction: Stranding of the IO is preferred over stranding of the DO (though the contrast is not as sharp as in Swedish / Danish, (i)c being marginal but not ungrammatical). In other words, changing the base order of the objects as in (i)b is preferable to keeping the base order as in (i)c under remnant VP-topicalisation in German.

- (i) Ge a. [VP Dem Mann das Buch] gegeben] hat sie nicht.
 the man the book given has she not
 b. [VP _____ Das Buch] gegeben] hat sie dem Mann nicht.
 c. ??[VP Dem Mann _____] gegeben] hat sie _____ das Buch nicht.
 d. [VP _____ _____] Gegeben] hat sie dem Mann das Buch nicht.

As SHIFTPRON and SHIFT both outrank HG, it is expected that the order may be changed in German. Further research is needed concerning the marginal status of (i)c.

To account for the fact that also both objects may be taken along, (124)a, or both of them may be stranded, (124)b, it is necessary to specify in the input which constituents are to be placed in topic position (= bold in the tableaux below). Stranding of an element that should appear in topic position then violates TOPIC whereas taking along too much material does not violate this constraint, see Tableau 17 and Tableau 18.

Tableau 15

Da/Sw: Topic: V & Pron-IO	TOPIC	HG	SHIFT PRON	STAY	ex.
a [VP V Pron-IO Pron-DO] Aux Sub Adv t _{VP}			**!		(124)a
☞ b [VP V Pron-IO t _{DO}] Aux Sub <u>Pron-DO</u> Adv t _{VP}			*	*	(122)a
c [VP V t _{IO} <u>Pron-DO</u>] Aux Sub Pron-IO Adv t _{VP}	*!	*	*	*	(122)b
d [VP V t _{IO} t _{DO}] Aux Sub Pron-IO <u>Pron-DO</u> Adv t _{VP}	*!			**	(124)b

Tableau 16

Da/Sw: Topic: V & Pron-DO	TOPIC	HG	SHIFT PRON	STAY	ex.
☞ a [VP V <u>Pron-IO</u> Pron-DO] Aux Sub Adv t _{VP}			**		(124)a
b [VP V <u>Pron-IO</u> t _{DO}] Aux Sub Pron-DO Adv t _{VP}	*!		*	*	(122)a
c [VP V t _{IO} Pron-DO] Aux Sub <u>Pron-IO</u> Adv t _{VP}		*!	*	*	(122)b
d [VP V t _{IO} t _{DO}] Aux Sub <u>Pron-IO</u> Pron-DO Adv t _{VP}	*!			**	(124)b

Tableau 17

Da/Sw: Topic: V & Pron-IO & Pron-DO	TOPIC	HG	SHIFT PRON	STAY	ex.
☞ a [VP V Pron-IO Pron-DO] Aux Sub Adv t _{VP}			**		(124)a
b [VP V Pron-IO t _{DO}] Aux Sub Pron-DO Adv t _{VP}	*!		*	*	(122)a
c [VP V t _{IO} Pron-DO] Aux Sub Pron-IO Adv t _{VP}	*!	*	*	*	(122)b
d [VP V t _{IO} t _{DO}] Aux Sub Pron-IO Pron-DO Adv t _{VP}	*!*			**	(124)b

Tableau 18

Da/Sw: Topic: V	TOPIC	HG	SHIFT PRON	STAY	ex.
a [VP V <u>Pron-IO</u> <u>Pron-DO</u>] Aux Sub Adv t _{VP}			*!*		(124)a
b [VP V <u>Pron-IO</u> t _{DO}] Aux Sub <u>Pron-DO</u> Adv t _{VP}			*!	*	(122)a
c [VP V t _{IO} <u>Pron-DO</u>] Aux Sub <u>Pron-IO</u> Adv t _{VP}		*!	*	*	(122)b
☞ d [VP V t _{IO} t _{DO}] Aux Sub <u>Pron-IO</u> <u>Pron-DO</u> Adv t _{VP}				**	(124)b

Similarly, the unacceptable sentence in (115)b, repeated here as (126)c, is ruled out by the ranking HG >> SHIFTPRON. These data led Holmberg (1997, 1999) to assume that remnant VP-topicalisation is not possible.

- (126) Sw a. Jag har inte sett henne arbeta.
I have not seen her work
 b. [VP Sett henne arbeta] har jag inte.
 c. *[VP Sett _____ arbeta] har jag henne inte. (Holmberg 1997: 206)

Tableau 19

Sw: Topic: V & V	TOPIC	HG	SHIFT PRON	STAY	STAY ADV	SHIFT	ex.
☞ a [VP V <u>Pron</u> V] Aux Sub Adv			*			*	(126)b
b [VP V t _{Pron} V] Aux Sub <u>Pron</u> Adv		*!		*			(126)c

Moreover, the analysis predicts that stranding of the object is unacceptable in constructions in which the object is followed by other elements within VP, e.g. in constructions with a particle verb, a verb with an additional PP-complement or with an adverbially modified VP, see (127)b-(130)b. In contrast, topicalisation of the full VP is possible.

- (127) Da a. [VP Smidt den ud] har jeg ikke.
thrown it out have I not
 b. *[VP Smidt _____ ud] har jeg den ikke.
 (128) Da a. [VP Sendt dem hjem] har jeg ikke.
sent them home have I not
 b. *[VP Sendt _____ hjem] har jeg dem ikke.

- (129) Da a. [_{VP} Stillet det på bordet] har jeg ikke.
put it on table-the have I not
 b. * [_{VP} Stillet ___ på bordet] har jeg det ikke.
- (130) Da a. [_{VP} Læst den højt] har jeg aldrig.
read it aloud have I never
 b. * [_{VP} Læst ___ højt] har jeg den aldrig.

Although they occupy a right-peripheral position within VP, particles, PPs and (VP-internal) adverbials cannot be left behind (irrespective of whether or not the object is taken along by VP-topicalisation or stranded as well). This is expected under the analysis proposed here: Only elements whose movement out of VP may be triggered by a constraint dominating STAY can be stranded by remnant VP-topicalisation.

- (131) Da a. * [_{VP} Smidt den ___] har jeg ikke ud.
thrown it have not out
 b. * [_{VP} Smidt ___ ___] har jeg den ikke ud.
- (132) Da a. * [_{VP} Læst den ___] har jeg aldrig højt.
read it have I never aloud
 b. * [_{VP} Læst ___ ___] har jeg den aldrig højt.
- (133) Da a. * [_{VP} Stillet det ___] har jeg ikke på bordet.
put it have I not on table-the
 b. * [_{VP} Stillet ___ ___] har jeg det ikke på bordet.
- (134) Da a. * [_{VP} Sendt dem ___] har jeg ikke hjem.
sent them have I not home
 b. * [_{VP} Sendt ___ ___] har jeg dem ikke hjem.

Tableau 20

Sw:	Topic: V & DP	TOPIC	HG	SHIFT PRON	STAY	STAY ADV	SHIFT	ex.
☞ a	[_{VP} V DP PP] Aux Sub Adv						(*)	(129)a
b	[_{VP} V DP _{tpp}] Aux Sub Adv <u>PP</u>				*!	*		(133)a

From the discussion in the previous sections, we might expect that all that matters is that the remnant object is at the edge of the the VP right before this VP is topicalised. However, not all objects on the right

edge may be left behind during VP-topicalisation: The object of an infinitival clause cannot be stranded by remnant topicalisation of the main clause VP although it is the rightmost element within that VP.

- (135) Da a. [_{VP} Set [_{IP} ham [_{VP} fotografere hende]]] har jeg ikke.
seen him photograph her have I not
b. * [_{VP} Set [_{IP} ham [_{VP} fotografere ____]]] har jeg hende ikke.

Thus, besides the linear restriction, there would seem to also be a structural restriction, ruling out the leaving behind of an object which is too deeply embedded.²⁴

Also with Swedish particle verbs where the particle must precede the object, and therefore would seem not to violate HG, the object cannot be left behind during (remnant) VP-topicalisation:

- (136) Sw a. [_{VP} Kastat bort den] har jag inte.
thrown out it have I not
b. * [_{VP} Kastat bort ____] har jag den inte. (Gunlög Josefsson, p.c.)

However, OS is possible in particle verb constructions where the particle is topicalised and the verb undergoes V2, cf. (30) which is repeated here as (137):

- (137) Sw a. UT kastade dom mej inte __ __ (bara ned för trappan).
out threw they me not (only down the stairs)
b. (Ja, ja, jag ska mata din katt, men) IN släpper jag den inte __ __.
(All right, I will feed your cat but) in let I it not
(Holmberg 1997: 209)

²⁴ The fact that stranding of the infinitival clause object is also (close to) unacceptable if the infinitival verb is topicalised alone, i.e. if the object trace would not be that deeply embedded, as in (i)d, may not be a problem, as the various topicalisations of the infinitival clause are all rather problematic:

- (i) Da a. ?? [_{IP} Ham [_{VP} fotografere hende]] så jeg ikke.
him photograph her saw I not
b. * [_{IP} Ham [_{VP} fotografere ____]] så jeg hende ikke.
c. ?? [_{VP} fotografere hende] så jeg ham ikke.
d. ??/* [_{VP} fotografere ____] så jeg ham hende ikke.

Asymmetry II: Subject vs. Object

To sum up, the ranking HG >> SHIFTPRON (>> SHIFT) predicts that remnant VP-topicalisation may strand an object in shifted position as long as the precedence relations are maintained (and its base position is not too deeply embedded). Consequently, only an object that is right-peripheral in VP may be left behind, giving rise to the asymmetry between stranding of an IO and stranding of a DO.

In addition, there is an asymmetry between stranding of an object and stranding of a subject by remnant VP-topicalisation, indicating that a non-peripheral trace in the topicalised VP is not a problem as such. The base order of elements does not have to be maintained by remnant VP-topicalisation if the remnant occurs in subject position (as in passives), see (140)a-(143)a vs. (140)b-(143)b.

- (140) Da a. *[_{VP} Smidt ___ ud] har jeg den ikke.
thrown out have I it not
 b. [_{VP} Smidt ___ ud] blev den ikke.
thrown out was it not
- (141) Da a. *[_{VP} Sendt ___ hjem] har jeg dem ikke.
sent home have I them not
 b. [_{VP} Sendt ___ hjem] blev de ikke.
sent home were they not
- (142) Da a. *[_{VP} Stillet ___ på bordet] har jeg det ikke.
put on table-the have I it not
 b. ?[_{VP} Stillet ___ på bordet] blev det ikke.
put on table-the was it not
- (143) Da a. *[_{VP} Læst ___ højt] har jeg den aldrig.
read aloud have I it never
 b. [_{VP} Læst ___ højt] blev den aldrig.
read aloud was it never

This contrast is accounted for if the constraint that triggers subject movement to Spec,IP, SUBJECT, outranks HG.

Tableau 21

Da:	Topic: V & Prt	SUBJECT	HG	SHIFT PRON	STAY	STAY ADV	SHIFT	ex.
☞ 1a	[_{VP} V <u>Pron-Obj</u> Prt] Aux Sub Adv			*			*	(128)a
1b	[_{VP} V _{t_{Obj}} Prt] Aux Sub <u>Pron-Obj</u> Adv		*!		*			(128)b/ (140)a
2a	[_{VP} V <u>Pron-Sub</u> Prt] Aux e Adv	*!		*			*	-
☞ 2b	[_{VP} V _{t_{Sub}} Prt] Aux <u>Pron-Sub</u> Adv		*		*			(140)b

The ranking SUBJECT >> HG is supported by the fact that movement to subject position does not depend on verb movement; i.e. subject movement may cross an intervening (unaccusative) verb. At the same time, HG predicts that in double object construction the IO rather than the DO is promoted to subject in passives, as borne out in e.g. Danish and English.²⁶

- (144) Da a. Elsa har ikke ____ ringet.
Elsa has not called
 b. Elsa er ikke kommet ____.
Elsa is not come

- (145) Da a. Jeg har ikke givet Elsa bogen.
I have not given Elsa book-the
 b. Elsa blev ikke givet ____ bogen.
Elsa was not given book-the
 c. *Bogen blev ikke givet Elsa ____.

- (146) En a. I did not give Elsa the book.
 b. Elsa was not given ____ the book.
 c. *The book was not given Elsa ____.

²⁶ However, promotion of the direct object to subject in passive double object constructions is possible in Swedish and Norwegian.

- (i) No a. Marie gav ham den.
Maria gave him it
 b. Han ble gitt ____ den.
 c. Den ble gitt ham ____.

As expected by HG, promotion of the direct object to the subject of a passive is possible if the recipient is expressed by a PP.

- (147) Da a. Jeg har ikke givet bogen til Elsa.
I have not given book-the to Elsa
 b. Bogen blev ikke givet _____ til Elsa.
book-the was not given to Elsa
 c. *Elsa blev ikke givet bogen til _____.

- (148) En a. I did not give the book to Elsa.
 b. The book was not given _____ to Elsa.
 c. *Elsa was not given the book to _____.

Tableau 22

Da:	SUBJECT	HG	SHIFT PRON	STAY	STAY ADV	SHIFT	ex.
1a e Aux V <u>DP</u>	*!						-
☞ 1b <u>DP</u> Aux V t _{DP}		*		*			(144)b
2a e Aux V <u>DP DP</u>	*!						-
☞ 2b <u>DP</u> Aux V t _{DP} <u>DP</u>		*		*			(145)b
2c <u>DP</u> Aux V <u>DP</u> t _{DP}		**!		*			(145)c
3a e Aux V <u>DP PP</u>	*!						-
☞ 3b <u>DP</u> Aux V t _{DP} <u>PP</u>		*		*			(147)b
3c <u>DP</u> Aux V <u>DP</u> [P t _{DP}]		**!*		*			(147)c

Asymmetry III: Remnant VP-Topicalisation out of a Main vs. an Embedded Clause

Moreover, there is an asymmetry between remnant VP-topicalisation out of a main clause and remnant VP-topicalisation out of an embedded clause.

Remember that there is a contrast between main and embedded clauses in finite verb movement in MSc and Icelandic and therefore also in the availability of OS.

- (149) Da a. *Hvorfor e Peter aldrig læste den?
why Peter never read it
 b. Hvorfor læste Peter den aldrig ____ ____?
 (Vikner 2005: 394)

- (150) Da a. Jeg spurgte hvorfor Peter e aldrig læste den.
I asked why Peter never read it
 b. *Jeg spurgte hvorfor Peter læste den aldrig ____ ____.
 (Vikner 2005: 396)

- (151) Ic a. *Af hverju e Pétur aldrei las hana?
why Pétur never read it
 b. Af hverju las Pétur hana aldrei ____ ____?
 (Vikner 2005: 394)

- (152) Ic a. *Ég spurði af hverju Pétur e aldrei læsi hana.
I asked why Pétur never read it
 b. Ég spurði af hverju Pétur læsi hana aldrei ____ ____.
 (Vikner 2005: 396)

A full VP may be topicalised from both main clauses and embedded clauses.

- (153) Da a. [_{VP} Set ham] har jeg ikke, ...
seen him have I not
 ... hvis jeg skal være ærlig, men jeg har talt i telefon med ham.
if I should be totally honest but I have spoken in phone with him
 b. [_{VP} Set ham] tror jeg ikke at du har, ...
seen him believe I not that you have
 ... men du kan måske nok have talt i telefon med ham.
but you may perhaps well have spoken in phone with him

Topicalisation of a remnant VP, by contrast, is only possible out of a main clause, (154)a, not out of an embedded clause in Danish: The stranded object may neither follow the finite auxiliary (in its base position), (154)b, nor may it precede it, (154)c:

- (154) Da a. ?[_{VP} Set ____] har jeg ham ikke, ...
seen have I him not
 ... hvis jeg skal være ærlig, men jeg har talt i telefon med ham.
if I should be totally honest but I have spoken on phone-the with him
- b. *[_{VP} Set ____] tror jeg ikke at du [_{v°} har] ham, ...
seen believe I not that you have him
- c. *[_{VP} Set ____] tror jeg ikke at du ham [_{v°} har] , ...
seen believe I not that you him have
 ... men du kan måske nok have talt i telefon med ham.
but you may perhaps well have spoken in phone with him

This asymmetry shows that stranding must involve OS, because OS requires the (stranded) object to occur in a position to the left of the base position of a finite verb (SHIFTPRON), but it can only do so if this verb has itself left its base position, (HG).

Tableau 23

Da: Topic: V	HG	SHIFT PRON	STAY	ex.
1a [_{VP} V <u>Pron-Obj</u>] Aux Sub Adv t _{VP}		*!		(153)a
1b [_{VP} V t _{Obj}] Aux Sub Adv <u>Pron-Obj</u> t _{VP}		*!	*	-
☞ 1c [_{VP} V t _{Obj}] Aux Sub <u>Pron-Obj</u> Adv t _{VP}			*	(154)a
☞ 2a [_{VP} V <u>Pron-Obj</u>] V Sub Adv Comp Sub Aux t _{VP}		*		(153)b
2b [_{VP} V t _{Obj}] V Sub Adv Comp Sub Aux <u>Pron-Obj</u> t _{VP}		*	*!	(154)b
2c [_{VP} V t _{Obj}] V Sub Adv Comp Sub <u>Pron-Obj</u> Aux t _{VP}	*!		*	(154)c

Note that remnant VP-topicalisation from embedded clauses is possible in passives, i.e. if the element left behind occurs in subject position. This follows from SUBJECT being ranked higher than HG, as in Tableau 22 above.

(155) Da a. [_{VP} Set ____] blev han ikke, ...
 seen *was he not*

b. [_{VP} Set ____] tror jeg ikke at han blev, ...
 seen *think I not that he was*

... men der var nok mange der hørte ham.

but there were probably many who heard him

The hypothesis that (a) a stranded object has to undergo movement to some position to the left of the finite verb and (b) that this movement is only possible if the finite verb itself has left its base position (i.e. that OS has to take place) seems to be supported by the fact that Icelandic which has V^o-to-I^o movement in embedded clauses marginally permits a remnant object in VP-topicalisation out of an embedded clause (as opposed to the Danish (154)b,c which are completely ungrammatical).

(156) Ic ??[_{VP} Kysst ____] hélt ég ekki að þú [_{I^o} hefðir] hana oft, ...
 kissed *think I not that you have her often*

... bara haldið í höndina á henni.

only held in hand.the on her

(Gunnar Hrafn Hrafnbjargarson, p.c.)

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