

## **Object Shift, Scrambling, and Optimality Theory**

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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. The main difference between OS and SCR is that the former presupposes movement of the main verb whereas the latter does not.

The optimality-theoretic account to be suggested will not distinguish between (Scandinavian) OS and (continental West Germanic) SCR as such. The differences will simply follow from more general constraints on object movement (in particular a constraint on order preservation), given the linear differences between the languages (VO in Scandinavian vs. OV in the continental West Germanic 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.

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## 1 Restrictions on the complexity (pronouns vs. full DPs)

### 1.1 Scrambling

Full DPs may precede or follow a sentential adverbial in German and Dutch, see (1) and (3) whereas weak (unfocused, non-modified, non-conjoined) pronouns have to precede it, (2) and (4).

(1) Ge a. Warum liest Peter nie das Buch \_\_\_\_?  
*why reads Peter never the book*

b. Warum liest Peter das Buch nie \_\_\_\_\_ \_\_\_\_?

(2) Ge a. \*Warum liest Peter nie es \_\_\_\_?  
*why reads Peter never it*

b. Warum liest Peter es nie \_\_\_\_\_ \_\_\_\_?

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

b. Jan heeft Marie gisteren \_\_\_\_\_ gekust.

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

b. Jan heeft 'r gisteren \_\_\_\_\_ gekust.

(Haegeman 1991: 32)

The various sequences of sentential adverbials and full DP arguments correlate with different information-structural interpretations; they are appropriate in different contexts.

(5) Ge a. Was hat Susanne getan? ('What did Susanne do?')

Sie hat wahrscheinlich [Peters Auto gestohlen]<sub>[+foc]</sub>.  
*she has probably Peter's car stolen*

b. Was hat Susanne mit Peters Auto getan? ('What did Susanne do to Peter's car?')

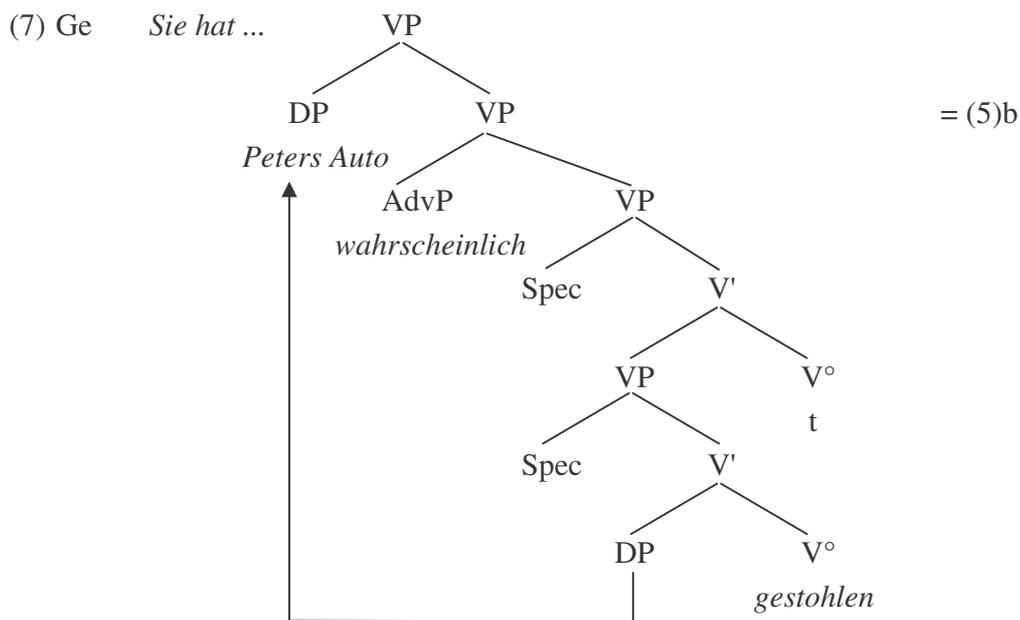
Sie hat Peters Auto wahrscheinlich [gestohlen]<sub>[+foc]</sub>.

Given that sentential adverbials are sensitive to information structure, partitioning the clause into focus and background, with unfocused arguments having to precede the adverbial, movement of complex phrases is presumably not optional (cf. Jacobs 1986, Haftka 1988, Hetland 1992, 1993, Buring 1996, among others); rather defocused arguments have to scramble, whereas arguments that are (part of) the

focus do not scramble.<sup>1</sup> In other words, the apparent optionality in (1) and (3) 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 (6)a. The constraint STAY in (6)b, by contrast, penalizes movement.

- (6) 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 (Tableau 1). 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 2. Since weak pronouns are inherently [-foc], they always have to move to the left of a sentential adverbial.

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<sup>1</sup> Focused arguments may undergo focus movement which differs from SCR in several respects. Focus movement will not be discussed here; cf. Haider & Rosengren (1998).

**Tableau 1**

Ge:	SHIFT	STAY	ex.
a Comp Sub [ <sub>VP</sub> Adv [ <sub>VP</sub> <u>DP-IO</u> <sub>[-foc]</sub> DO V]]	*!		-
☞ b Comp Sub [ <sub>VP</sub> <u>DP-IO</u> <sub>[-foc]</sub> [ <sub>VP</sub> Adv [ <sub>VP</sub> t <sub>IO</sub> DO V]]]		*	(5)c

**Tableau 2**

Ge:	SHIFT	STAY	ex.
☞ a Comp Sub [ <sub>VP</sub> Adv [ <sub>VP</sub> <u>DP-IO</u> DO V]]			(5)b
b Comp Sub [ <sub>VP</sub> <u>DP-IO</u> [ <sub>VP</sub> Adv [ <sub>VP</sub> t <sub>IO</sub> DO V]]]		*!	-

## 1.2 Object Shift

As in German and Dutch, a full DP may optionally precede or follow a sentential adverbial in Icelandic.

- (8) Ic a. Af hverju las Pétur aldrei þessa bók?  
*why read Pétur never this book*  
 b. Af hverju las Pétur þessa bók aldrei \_\_\_\_\_?

Likewise, syntactically complex pronouns, i.e. modified and conjoined ones, may undergo OS in Icelandic, see (9) and (10).

- (9) 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)

- (10) 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)

In contrast, neither full DPs nor complex pronouns may undergo OS in the Mainland Scandinavian languages (MSc).

- (11) Da a. Hvorfor læste Peter aldrig bogen?  
*why read Peter never book-the*  
 b. \*Hvorfor læste Peter bogen aldrig \_\_\_\_\_?

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

- (13) 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, cf. section 2.1), (14) and (15), OS is optional in Swedish, (16), as well as in south-eastern dialects of Danish, (17), and ungrammatical in Finland Swedish, (18), and in the Swedish dialect Älvdalsmålet, (19); see Levander (1909) and Hellan & Platzack (1999).

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

- (15) Da a. \*Peter læste aldrig den.  
*Peter read never it*  
 b. Peter læste den aldrig \_\_\_\_.

- (16) Sw a. Jag såg inte den.  
*I saw not it*  
 b. Jag såg den inte \_\_\_\_\_. (Erteschik-Shir 2001: 54)

- (17) 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)

- (18) 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)

- (19) Äl a. An ság int mig.  
           *he saw not me*  
       b. \*An ság mig int \_\_\_\_.
- (Levander 1909:124)

Hence, while both syntactically simple and complex phrases may undergo OS in Icelandic, only weak pronouns may be shifted in MSc. This asymmetry points out that movement of complex phrases and movement of pronouns have to be differentiated. Assuming that Scandinavian OS and continental West Germanic SCR are instances of the same movement device, the availability of full DP shift in Icelandic indicates that SHIFT outranks STAY (Tableau 3). Its ungrammaticality in MSc, in contrast, can be accounted for by the reverse ranking, STAY >> SHIFT (Tableau 4).

**Tableau 3**

Ic:	SHIFT	STAY	ex.
a Sub V [VP Adv [VP ... <u>DP-Obj</u> <sub>[-foc]</sub> ]]	*!		-
☞ b Sub V [VP <u>DP-Obj</u> <sub>[-foc]</sub> [VP Adv [VP ... t <sub>Obj</sub> ]]]		*	(8)b

**Tableau 4**

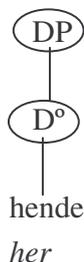
Da:	STAY	SHIFT	ex.
☞ a Sub V [VP Adv [VP ... <u>DP-Obj</u> <sub>[-foc]</sub> ]]		*	(11)a
b Sub V [VP <u>DP-Obj</u> <sub>[-foc]</sub> [VP Adv [VP ... t <sub>Obj</sub> ]]]	*!		(11)b

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".

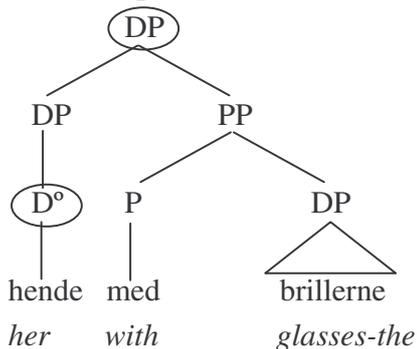
- (20) SHIFTPRONOUN: A [-foc] proform that is "min = max" precedes and c-commands the lowest VP (of the same clause) that contains all other VPs and all VP-adjoined adverbials.

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, (21)a, differs from a modified, (21)b, or conjoined one, (21)c, in that the phrasal status of the former but not the one of the latter two is "min = max".

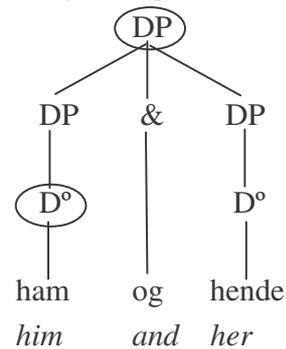
(21) a. simple pronoun



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 (21)a, but not in (21)b,c. Hence, SHIFTPRON does not affect modified or conjoined pronouns; they are thus expected to remain *in situ* in MSc due to the ranking STAY >> SHIFT. A weak pronoun, in contrast, undergoes OS in Danish because of SHIFTPRON >> STAY.

Tableau 5

Da:	SHIFT PRON	STAY	SHIFT	ex.
☞ 1a Sub V [VP Adv [VP ... [DP≠D° <u>Pron-Obj Mod</u> ]]]			*	(12)a
1b Sub V [VP [DP≠D° <u>Pron-Obj Mod</u> ] [VP Adv [VP ... t <sub>Obj</sub> ]]]		*!		(12)b
☞ 2a Sub V [VP Adv [VP ... [DP≠D° <u>Pron-Obj &amp; Pron-Obj</u> ]]]			*	(13)a
2b Sub V [VP [DP≠D° <u>Pron-Obj &amp; Pron-Obj</u> ] [VP Adv [VP ... t <sub>Obj</sub> ]]]		*!		(13)b
3a Sub V [VP Adv [VP ... [DP=D° <u>Pron-Obj</u> ]]]	*!		*	(15)a
☞ 3b Sub V [VP [DP=D° <u>Pron-Obj</u> ] [VP Adv [VP ... t <sub>Obj</sub> ]]]		*		(15)b

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

### 1.3 Summary

As shown in this chapter, there is cross-linguistic variation as to which types of elements may undergo movement, weak pronouns vs. complex phrases. In Icelandic and in the continental West Germanic languages, both weak pronouns and complex phrases may undergo movement. In MSc, in contrast, movement of full DPs is impossible; if OS is at all possible, only weak pronouns may move: Movement of a weak pronoun is obligatory in Danish and Icelandic whereas it is optional in Swedish and some south-eastern dialects of Danish, and it is ungrammatical in the Swedish dialect Älvdalsmålet and Finland Swedish.

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. The optionality of pronominal OS in Swedish and the south-eastern Danish dialects might be accounted for by a constraint tie between STAY and SHIFTPRON,  $STAY \langle \rangle SHIFTPRON$ : Both relative rankings of the two constraints,  $STAY \gg SHIFTPRON$  and  $SHIFTPRON \gg STAY$ , co-exist in these languages; depending on the actual ranking, movement is required or prohibited, accounting for its optionality. (In terms of Müller's (2001a) classification of constraint ties, we are here dealing with an ordered global tie.)

Figure 1 shows the different rankings of STAY.

**Figure 1**

Äl/FiSw:	STAY	$\gg$	SHIFTPRON	$\gg$		$\gg$	SHIFT
Sw/SD:	STAY	$\langle \rangle$	SHIFTPRON	$\gg$		$\gg$	SHIFT
Da/No:			SHIFTPRON	$\gg$	STAY	$\gg$	SHIFT
unattested:			SHIFTPRON	$\gg$	STAY	$\langle \rangle$	SHIFT
Ic/Du/Ge:			SHIFTPRON	$\gg$		$\gg$	SHIFT $\gg$ 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  $SHIFT \gg STAY \gg SHIFTPRON$ , 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.

## 2 Restrictions on movement (Holmberg's Generalisation)

### 2.1 Object Shift

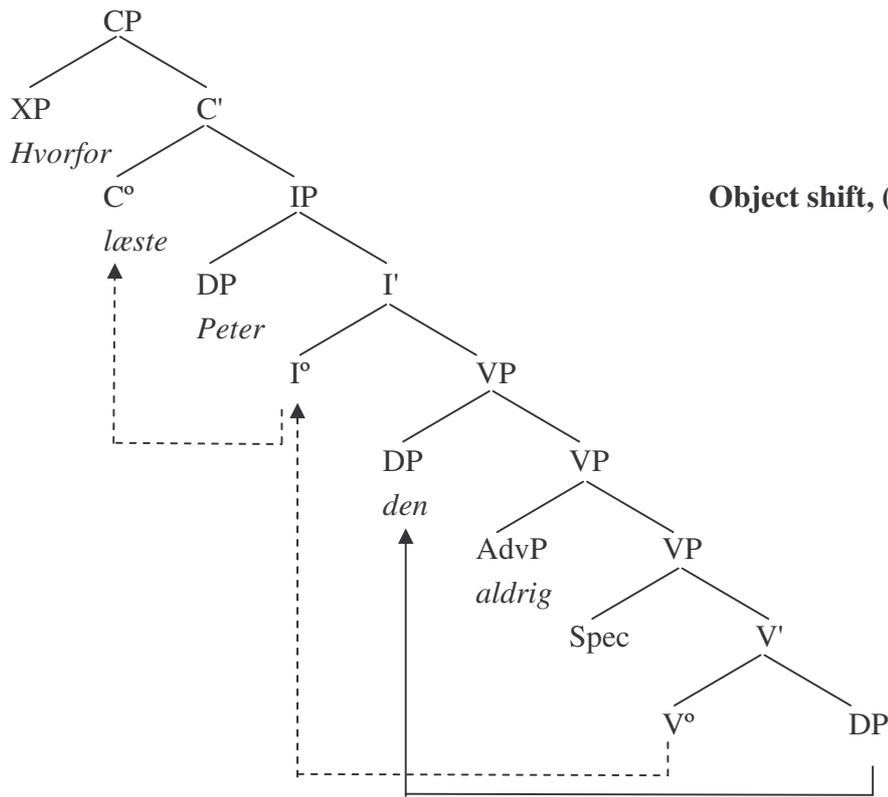
#### 2.1.1 Verb Movement

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.

- (22) Da a. \*Hvorfor læste Peter aldrig \_\_\_ den?  
*why read Peter never it*  
b. Hvorfor læste Peter den aldrig \_\_\_ \_\_\_?

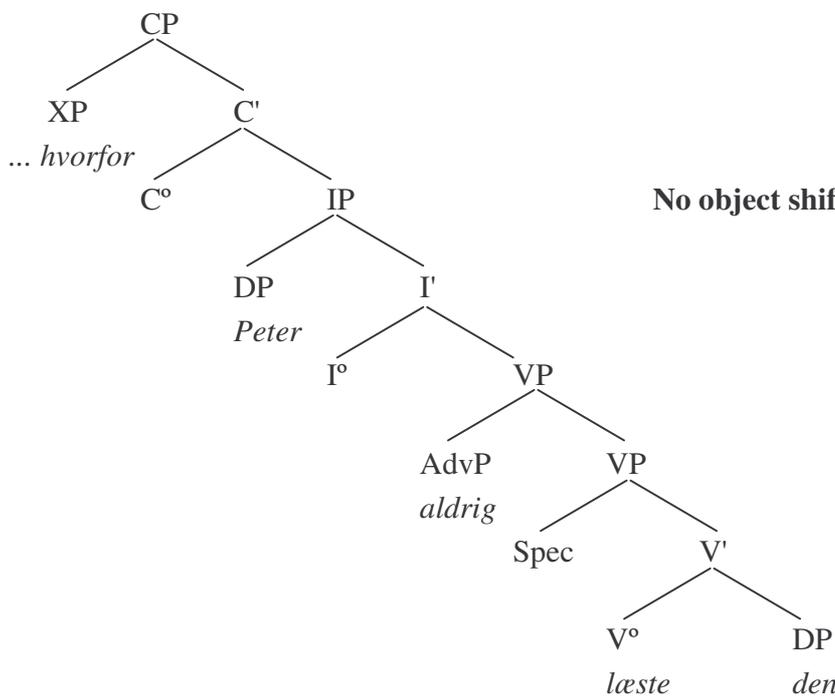
- (23) Da a. Jeg spurgte hvorfor Peter aldrig læste den.  
*I asked why Peter never read it*  
b. \*Jeg spurgte hvorfor Peter den aldrig læste \_\_\_.

(24) Da



Object shift, (22)b, main clause

(25) Da

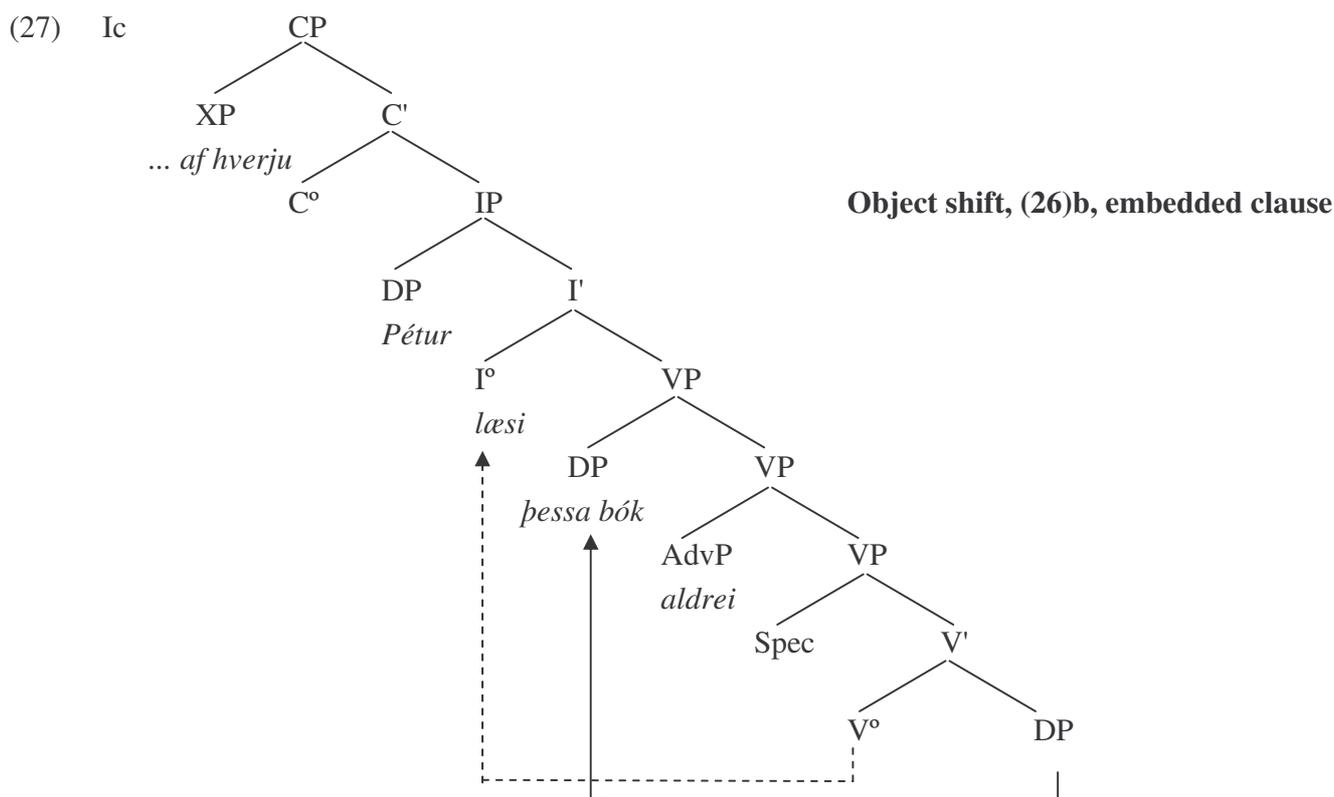


No object shift, (23)a, embedded clause

(Potential *wh*-movement of *hvorfor* 'why' and subject movement from Spec,VP to Spec,IP are not shown.)

In contrast to MSc, finite verb movement in Icelandic takes place not only in main clauses but also in embedded clauses. Consequently, OS is possible in both main clauses and embedded clauses. (The syntactic structure of Icelandic main clauses is the same as the Danish one in (24) above.)

- (26) 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)



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.<sup>2</sup>

<sup>2</sup> Infinitival verbs in Icelandic control structures undergo V°-to-I° movement (or maybe V°-to-I°-to-C°), as illustrated by their position relative to an adverbial. As would be expected, these have OS too.

- (i) Ic a. \**María lofaði að ekki lesa bókina.*  
*María promised to not read book-the*  
 b. *María lofaði að lesa ekki bókina.*  
 c. *María lofaði að lesa bókina ekki \_\_\_\_\_.*  
 (Jónsson 1996: 164)

- (28) Da a. Hvorfor havde Peter aldrig læst den?  
*why had Peter never read it*  
 b. \*Hvorfor havde Peter den aldrig læst \_\_\_?
- (29) 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)

However, OS may take place in clauses with a non-finite main verb if the verb occurs in clause-initial position. These constructions will be discussed in detail in our second talk, *Object Shift, Remnant VP-topicalisation, and Optimality Theory*.

- (30) Sw a. Kysst har jag henne inte \_\_\_ \_\_\_ (bara hállit henne i handen).  
*kissed have I her not only held her by hand-the*  
 (Holmberg 1999: 7)  
 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).

- (31) **Holmberg's Generalisation (HG)** (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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The definition in (31) is vague with respect to whether precedence and/or c-command of a phonologically visible category blocks movement. In the 1999 version of the paper, Holmberg formulates HG in terms of asymmetric c-command. For reasons to become clear in section 2.2.3 below, we pursue the first option, taking HG to be the consequence of a violable condition on order preservation (cf. Déprez 1994, Müller 2001b, Sells 2001, and Williams 2003).

## (32) ORDER PRESERVATION (ORDPRES):

If the foot of the chain of some non-adverbial element  $\alpha$  precedes the foot of the chain of some element  $\beta$ , the head of the chain of  $\alpha$  also precedes the head of the chain of  $\beta$ .

The fact that both pronominal OS and full DP shift are subject to HG indicates that ORDPRES 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 ORDPRES. 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 itself moved such that the head of the verb's chain precedes the head of the chain of the shifted element (cf. Tableau 6 and Tableau 7). 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 out of VP also takes place in embedded clauses.

Tableau 6

Da:	ORD PRES	SHIFT PRON	STAY	SHIFT	ex.
☞ 1a Sub Aux Adv <u>V</u> <u>Pron-Obj</u> <sub>[-foc]</sub>		*		*	(28)a
1b Sub Aux <u>Pron-Obj</u> <sub>[-foc]</sub> Adv <u>V</u> <u>t</u> <sub>Obj</sub>	*!		*		(28)b
☞ 2a Comp Sub Adv <u>V</u> <u>Pron-Obj</u> <sub>[-foc]</sub>		*		*	(23)a
2b Comp Sub <u>Pron-Obj</u> <sub>[-foc]</sub> Adv <u>V</u> <u>t</u> <sub>Obj</sub>	*!		*		(23)b
3a Sub <u>V</u> Adv <u>t</u> <sub>v</sub> <u>Pron-Obj</u> <sub>[-foc]</sub>		*!		*	(22)a
☞ 3b Sub <u>V</u> <u>Pron-Obj</u> <sub>[-foc]</sub> Adv <u>t</u> <sub>v</sub> <u>t</u> <sub>Obj</sub>			*		(22)b

Tableau 7

Ic:	ORD PRES	SHIFT PRON	SHIFT	STAY	ex.
☞ 1a Sub Aux Adv <u>V</u> <u>DP-Obj</u> <sub>[-foc]</sub>			*		(29)a
1b Sub Aux <u>DP-Obj</u> <sub>[-foc]</sub> Adv <u>V</u> <u>t</u> <sub>Obj</sub>	*!			*	(29)b
2a Comp Sub <u>V</u> Adv <u>t</u> <sub>v</sub> <u>DP-Obj</u> <sub>[-foc]</sub>			*!		-
☞ 2b Comp Sub <u>V</u> <u>DP-Obj</u> <sub>[-foc]</sub> Adv <u>t</u> <sub>v</sub> <u>t</u> <sub>Obj</sub>				*	(26)b
3a Sub <u>V</u> Adv <u>t</u> <sub>v</sub> <u>DP-Obj</u> <sub>[-foc]</sub>			*!		-
☞ 3b Sub <u>V</u> <u>DP-Obj</u> <sub>[-foc]</sub> Adv <u>t</u> <sub>v</sub> <u>t</u> <sub>Obj</sub>				*	(8)b

The constraint ORDPRES does not refer to verbs explicitly. The ranking ORDPRES >> SHIFTPRON >> SHIFT thus predicts that OS is blocked by any intervening non-adverbial element. The following sections show how ORDPRES affects object positions in particle verb constructions and double object constructions.

### 2.1.2 Particle Verbs

In languages in which the object precedes a verb particle as in Danish, (33), OS is possible in particle verb constructions, (34).

- (33) Da a. \*Jeg har ikke skrevet op det.  
*I have not written up it*  
 b. Jeg har ikke skrevet det op.
- (34) Da a. \*Jeg skrev ikke det op.  
*I wrote not it up*  
 b. Jeg skrev det ikke \_\_\_ op.

In contrast, in languages in which the object follows the particle as in Swedish, (35), OS may not take place across a particle, (36), as expected by ORDPRES >> SHIFTPRON.

- (35) Sw a. Jag har inte skrivit upp det.  
*I have not written up it*  
 b. \*Jag har inte skrivit det upp.
- (36) Sw a. Jag skrev inte upp det.  
*I wrote not up it*  
 b. \*Jag skrev det inte upp \_\_\_.

However, as with participles in (30) above, also Swedish particles may move to Spec,CP in which case OS may take place after all. In this case, OS does not violate ORDPRES.

- (37) 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)

### 2.1.3 Double Objects

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

- (38) Da a. \*Jeg gav ikke hende bogen.  
           I gave not her book-the  
       b. Jeg gav hende ikke \_\_\_\_\_ bogen.

In 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, (39); yet, the DO may undergo OS if the IO is moved out of the way – by *wh*-movement, (40)a, topicalisation, (40)b, or OS, (40)c:

- (39) Sw a. Jag gav inte Elsa den. (Sells 2001: 48)  
           I gave not Elsa it  
       b. \*Jag gav den inte Elsa \_\_\_\_\_. (Holmberg 1997: 203)
- (40) Sw a. Vem gav du den inte \_\_\_\_\_? (Holmberg 1997: 208/209)  
           who gave you it not  
       b. Henne visar jag den helst inte \_\_\_\_\_.  
           her show I it rather not  
       c. Jag visar henne den inte \_\_\_\_\_.  
           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:<sup>3</sup>

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<sup>3</sup> 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 (39) above), and Holmberg (1986: 207) 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.

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

- (41) Da a. Jeg gav hende den ikke \_\_\_\_ \_\_\_\_.  
*I gave her it not*  
 b. \*Jeg gav den hende ikke \_\_\_\_ \_\_\_\_.

- (42) 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 \_\_\_\_ \_\_\_\_.

The prohibition against reversal of the order of arguments is predicted by the ranking ORDPRES >> SHIFTPRON >> SHIFT: In contrast to Holmberg's (1997) definition of HG in (31) above, ORDPRES is taken not only to prohibit movement across a non-adverbial element that is VP-internal but movement across any linearly intervening non-adverbial element. Consequently, ORDPRES is violated by both shifting a DO shift across an *in situ* IO and placing it in front of a shifted IO.

The fact that OS of a DO is 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 is expected since the relative order between the arguments is retained, as required by ORDPRES.<sup>4,5</sup>

- 
- (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)

<sup>4</sup> 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 ORDPRES >> SHIFTPRON >> SHIFT; it is possible as long as at the surface, IO precedes DO again. Hence, the order of movement application does not matter.

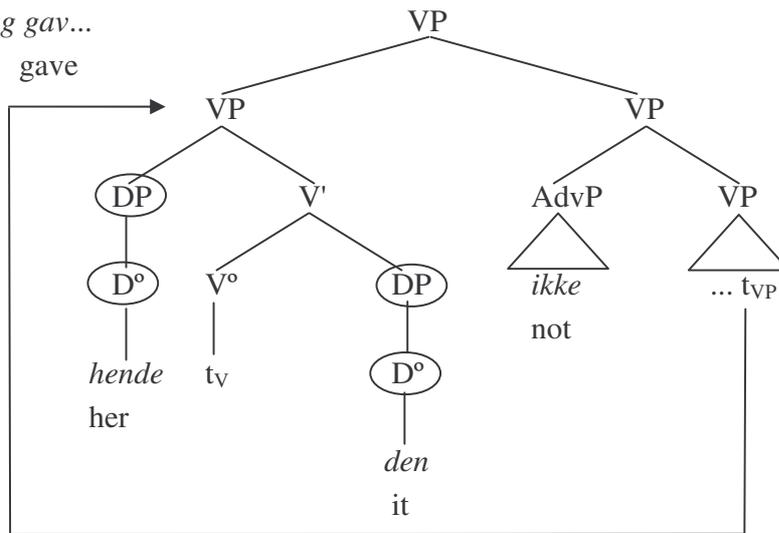
<sup>5</sup> Remember that SHIFT and SHIFTPRON only require precedence and c-command of the relevant VP but not movement to a particular position. ORDPRES predicts that a shifted constituent adjoins to VP rather than to IP where it would precede the subject (given that the trace of the subject precedes the trace of the object).

**Tableau 8**

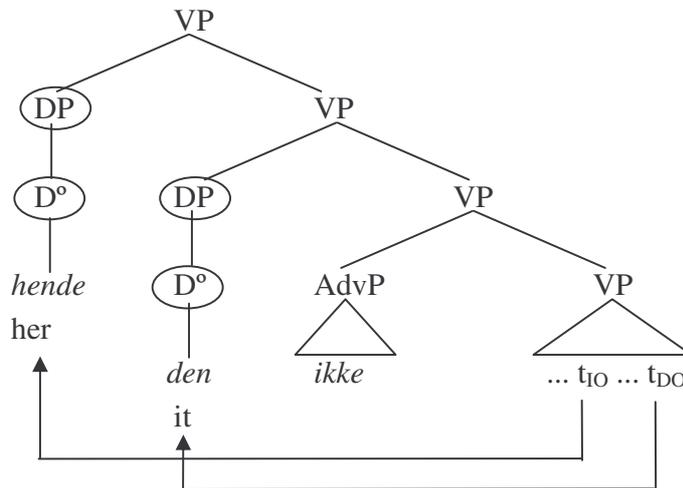
Da/Sw:	ORD PRES	SHIFT PRON	STAY	SHIFT	ex.
☞ 1a Sub V Adv <u>DP-IO</u> <u>Pron-DO</u>		*		*	(39)a
1b Sub V <u>Pron-DO</u> Adv <u>DP-IO</u> t <sub>DO</sub>	*!		*		(39)a
2a <u>IO</u> V Sub Adv t <sub>IO</sub> <u>Pron-DO</u>		*!		*	-
☞ 2b <u>IO</u> V Sub <u>Pron-DO</u> Adv t <sub>IO</sub> t <sub>DO</sub>			*		(40)b

Note that the restriction of SHIFTPRON to syntactically simple elements (i.e. "min = max") predicts that multiple OS as in (41) 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 (43)a and (43)b. The formulation of SHIFT and SHIFTPRON is such that in multiple OS, cf. (43)b, both shifted objects fulfill the condition, in that both shifted objects precede and c-command the relevant VP.

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



b. *Jeg gav...*  
I gave



**Tableau 9**

Da:	ORD PRES	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 <sub>IO</sub> [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 <sub>VP</sub> ]]]		*!*	*	**	(41)a/ (43)a
d Sub V [VP [DP=D° <u>Pron-DO</u> ] [VP [DP=D° <u>Pron-IO</u> ] [VP Adv [VP ... t <sub>IO</sub> t <sub>DO</sub> ]]]]]	*!		**		(41)b
e Sub V [VP [DP=D° <u>Pron-IO</u> ] [VP [DP=D° <u>Pron-DO</u> ] [VP Adv [VP ... t <sub>IO</sub> t <sub>DO</sub> ]]]]]			**		(41)a/ (43)b

## 2.2 Scrambling

### 2.2.1 Verb Movement

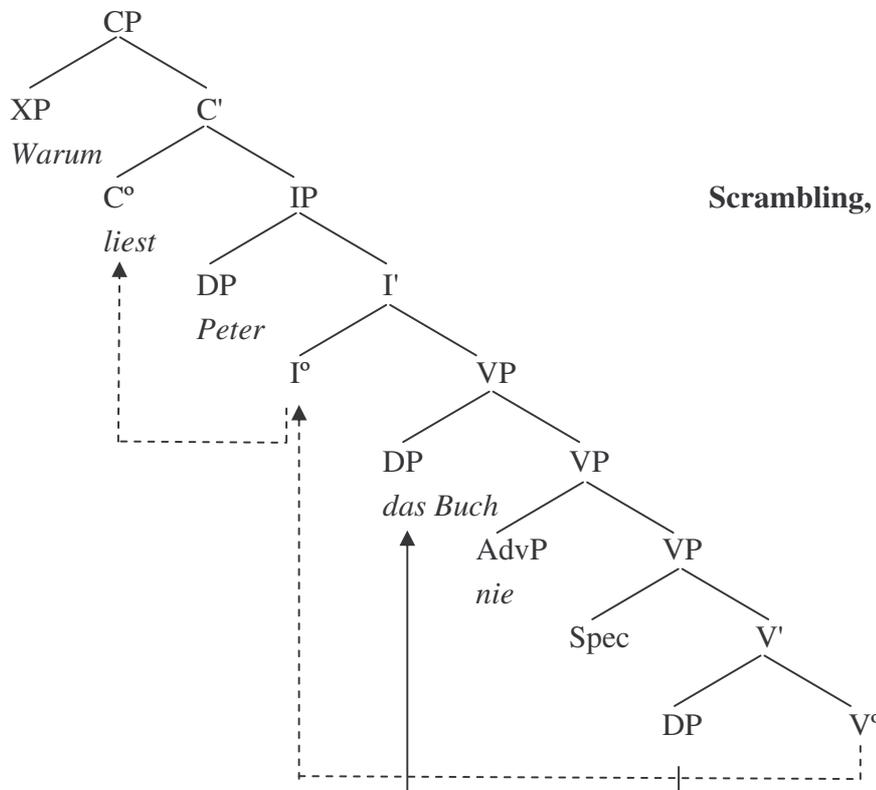
Object positions in the SCR languages do not depend on the position of the main verb: SCR is possible in both main clauses with a finite main verb, where the verb moves to V2 position, (44), as well as in embedded clauses, (45), and clauses with a non-finite main verb, (46), where no movement of the main verb takes place.

- (44) Ge a. Warum liest Peter nie das Buch \_\_\_\_?  
           *why reads Peter never the book*  
       b. Warum liest Peter das Buch nie \_\_\_\_\_ \_\_\_\_?

- (45) 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.

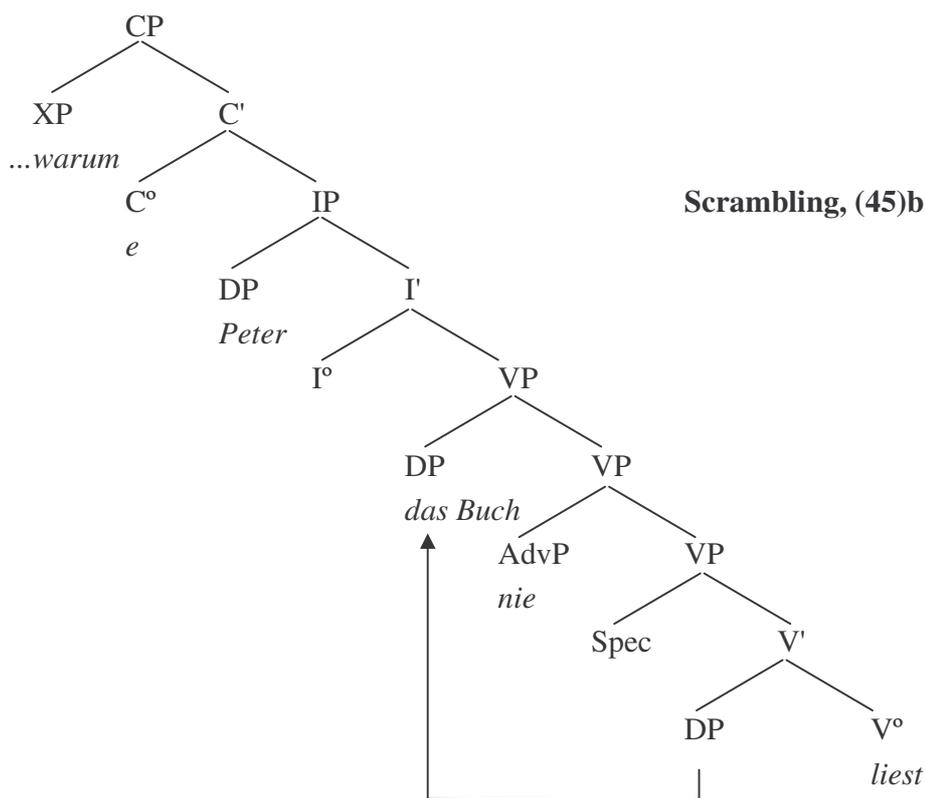
- (46) Ge a. Warum hat Peter nie das Buch gelesen?  
           *why has Peter never the book read*  
       b. Warum hat Peter das Buch nie \_\_\_\_\_ gelesen?

(47) Ge



Scrambling, (44)b, main clause

(48) Ge



Scrambling, (45)b, embedded clause

Due to this contrast, Scandinavian OS and continental West Germanic SCR are normally treated as two different phenomena (Holmberg 1986, Vikner 1994, 2005). However, given that the restriction on OS results from a condition on order preservation, the fact that verbs do not block SCR does not indicate that SCR is not subject to HG. SCR languages are OV, i.e. the verb never intervenes linearly between the base position of an object and its scrambled position and it is thus not expected to block SCR (see also a similar suggestion in Déprez 1994: 111).

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

### 2.2.2 Particle verbs

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), and they are thus expected not to block SCR. This prediction is borne out:

- (49) Ge a. ... weil er nie seinen Müll wegwirft.  
           because he never his garbage away-throws  
       b. ... weil er seinen Müll nie \_\_\_\_\_ wegwirft.

### 2.2.3 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*, (50)d, or in a scrambled position itself, (50)e. The pronouns in (51) preferably occur in the order DO<IO, i.e. the reverse of the basic order.

- (50) 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.
- (51) 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 can move across a full DP IO, and the order of two object pronouns is variable.

- (52) Du a. ??...dat Jan Marie 't gegeven heeft.  
*that Jan Mary it given has*  
 b. ... dat Jan 't Marie \_\_\_\_\_ gegeven heeft. (Zwart 1993: 129)
- (53) Du a. ?... dat Jan 'r 't gegeven heeft.  
*that Jan her it given has*  
 b. ... dat Jan 't 'r \_\_\_\_\_ gegeven 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.

- (54) Du a. ... dat ik de jongen het boek 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 contrast between full DPs and pronouns in Dutch as to the ability to scramble across a higher argument supports the hypothesis that two movement devices have to be differentiated according to the syntactic complexity of the moved constituent (SHIFT and SHIFTPRONOUN).

In addition, this contrast points out that ORDPRES is violable: While OS is subject to ORDPRES 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 restriction on full DP SCR in Dutch corroborates the view that HG is a requirement on order preservation: While a verb *in situ*, a particle as well as an IO all c-command a DO in Dutch, 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.

The fact that it depends on the complexity of the moved element whether or not movement may cross an intervening argument in Dutch can be accounted for by the ranking SHIFTPRON >> ORDPRES >> SHIFT.

**Tableau 10**

Du:	SHIFT PRON	ORD PRES	SHIFT	STAY	ex.
☞ a Comp Sub Adv <u>DP-IO</u> <u>DP-DO</u> <sub>[-foc]</sub> V			*		(54)a
b Comp Sub DP-DO <sub>[-foc]</sub> Adv <u>DP-IO</u> t <sub>DO</sub> V		*!		*	(54)d
a Comp Sub Adv <u>DP-IO</u> <u>Pron-DO</u> <sub>[-foc]</sub> V	*!		*		(52)a
☞ b Comp Sub <u>Pron-DO</u> <sub>[-foc]</sub> Adv DP-IO t <sub>DO</sub> V		*		*	(52)b

The fact that an intervening element does not block movement in German, irrespective of the syntactic complexity of the moved element, points to the conclusion that both SHIFTPRON and SHIFT outrank ORDPRES.

**Tableau 11**

Ge:		SHIFT PRON	SHIFT	ORD PRES	STAY	ex.
	1a	Comp Sub Adv <u>DP-IO</u> <u>DP-DO</u> <sub>[-foc]</sub> V		*!		-
☞	1b	Comp Sub <u>DP-DO</u> <sub>[-foc]</sub> Adv <u>DP-IO</u> t <sub>DO</sub> V		*	*	(50)b
	2a	Comp Sub Adv <u>DP-IO</u> <u>Pron-DO</u> <sub>[-foc]</sub> V	*!	*		-
☞	2b	Comp Sub <u>Pron-DO</u> <sub>[-foc]</sub> Adv <u>DP-IO</u> t <sub>DO</sub> V		*	*	-

### 3 Summary

In both the Scandinavian and the continental West Germanic languages, an object may move from its base position to a position to the left of a sentential adverbial. Object movement in these two language groups is normally treated as two different movement operations, OS in the Scandinavian languages and SCR in the continental West Germanic languages. We argued that OS and SCR could be analysed as instances of one and the same movement device; cross-linguistic variation seems to be more related to the syntactic complexity of the moved element, weak pronoun vs. full DP.

In MSc, only weak pronouns may undergo movement whereas in Icelandic and in the continental West Germanic languages, both weak pronouns and full DPs may move. The applicability of OS/SCR to objects of different syntactic complexity might be accounted for by the ranking of SHIFT and SHIFTPRON relative to STAY.

The Scandinavian languages and the continental West Germanic languages differ from each other w.r.t. whether verb movement is required. We argued that if HG is considered to be a condition on order preservation, this contrast derives from the contrast in basic verb position, VO in the Scandinavian languages versus OV in the continental West Germanic languages.

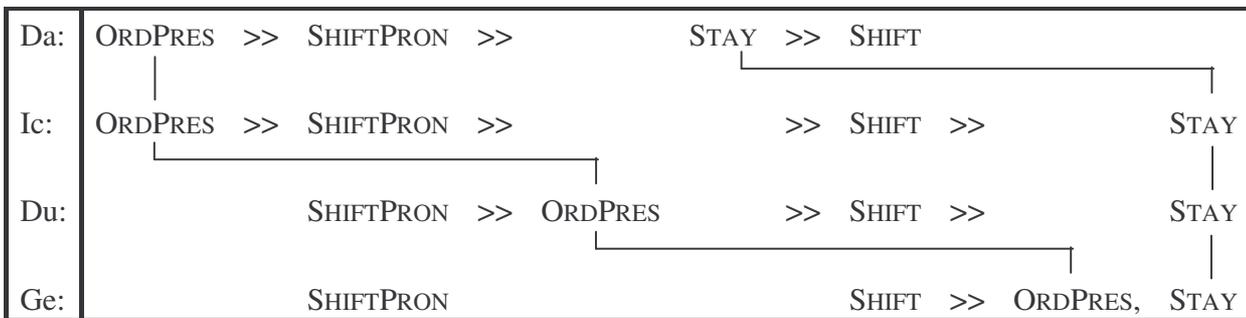
Furthermore, taking HG to be a violable OT constraint on order preservation, cross-linguistic variation as to the blocking effect of intervening elements can be captured: Scandinavian OS cannot cross any intervening element while German SCR may do so. In Dutch, it depends on the syntactic complexity of the moved element whether or not movement is blocked by an intervening element.

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

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

Figure 2 illustrates the different constraint rankings that account for the cross-linguistic variation in object movement.

**Figure 2**



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