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Object Shift and remnant VP-topicalisation: Danish and Swedish verb particles and 'let'-causatives

Eva Engels & Sten Vikner

On the basis of an examination of remnant VP-topicalisation constructions, this paper argues for an order preservation analysis of Scandinavian Object Shift. Extending the empirical database, we account for the phenomena in an Optimality Theoretic framework. The paper focusses on two particular constructions in Danish and Swedish, namely particle verb constructions and causative constructions with Danish *lade* and Swedish *lâta* 'let'. It is shown how differences in the VP-internal object position give rise to mirror image sequences concerning Object Shift in connection with verb second (V°-to-I°-to-C° movement) and with remnant VP-topicalisation.

Keywords Danish, 'let'-causatives, Object Shift, order preservation, Optimality Theory, particle verbs, remnant Scandinavian, Swedish, VP-topicalisation

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1. INTRODUCTION

The present paper is part of a larger study of Object Shift (OS) in Scandinavian (see Engels & Vikner 2013a, b); it focuses on differences between Danish and Swedish as to the applicability of OS.

Object Shift is a movement operation that moves an unfocused object from its canonical position to the right of the main verb to a position to the left of a sentential adverbial. In Danish and Swedish, OS is restricted to weak pronouns while full DPs cannot undergo OS, as shown by the contrast between (1)/(3) and (2)/(4). In addition note that OS of a weak pronoun is obligatory in Danish (Da) whereas it is optional in Swedish (Sw).²

(1)	Da:	a.	Hvortor	læste	Peter		aldrıg	 den her bog?
			why	read	Peter		never	this here book
		b.	*Hvorfor	læste	Peter	den her bog	aldrig	 ?
								(Vikner 2005:394)

(2)	Da:	a.	*Hvorfor	læste	Peter		aldrig	den?
			why	read	Peter		never	it
		b.	Hvorfor	læste	Peter	den	aldrig	?
								(Vikner 2005:394)
(3)	Sw:	a.	Varför	läste	Peter		aldrig	denna boken?
			why	read	Peter		never	this book.the
		b.	*Varför	läste	Peter	denna boken	aldrig	?
(4)	Sw:	a.	Varför	läste	Peter		aldrig	den?
			why	read	Peter		never	it
		b.	Varför	läste	Peter	den	aldrig	?

Object Shift presupposes movement of the main verb; as shown in (5), it cannot cross a verb *in situ*.

(5)	Da:	a.	Hvorfor	har	Peter		aldrig	læst	den?
			why	has	Peter		never	read	it
		b.	*Hvorfor	har	Peter	den	aldrig	læst	?
									(Vikner 2005:395)

This observation, i.e. that the object only moves if the main verb has moved, forms the basis of Holmberg's generalisation (Holmberg 1986:165, 1997:208). Holmberg's (1997) formulation is given in (6), where 'within VP' has to mean that only elements 'properly inside' VP (i.e. not adverbials or other elements adjoined to VP) may block OS.

(6) Holmberg's generalisation Object Shift is blocked by any phonologically visible category preceding/ccommanding the object position within VP.

However, the main verb does not have to undergo head movement (V° -to- I° -to- C° movement) as in (2) and (4) in order to license OS. Object Shift is also possible in clauses with a non-finite main verb if the verb occurs in clause-initial position, as illustrated in (7).

(7)	Sw:	a.	Kysst kissed	3 0	inte not	(bara hållit henne i handen) only held her by hand.the (Holmberg 1999:7
	Da:	b.	Kysset kissed		ikke not	(bare holdt hende i hånden) only held her by hand.the (Vikner 2005:407

Likewise, OS cannot take place if it would cross other visible non-adverbial material such as the indirect object in (8), but can apply if the indirect object is moved out of the way (e.g. by OS or *wh*-movement), as shown in (9).

(8)	Da:			_	not			e n .			
(9)	Da:		I g Hvad	ave hi	m it n stu	<i>no</i> deren	t de	gav gave	du		en ikke?
a co	ntras -cons	t be stru	tween	Danisl In Da	h and nish, v	Swedi where	ish the	as to C e objec	OS i	n pa	dverbial material gives rise to article verb constructions and des the particle as well as the is possible, see (15) and (17).
(14)	Da:		*Jeg <i>I</i> Jeg	have i		vritten	ı	numme	ret	иp	nummeret. number.the
(15)	Da:		I	skrev wrote skrev	1	kke c iot i kke _	t	ир			
(16)	Da:		*Jeg I Jeg 'I hav	have har	ladet		et	støvsug <i>vacuum</i> støvsug im.cleai	i.cle ge	,	tæppet. carpet.the adapted from Vikner 1987:262)
(17)	Da:		*Jeg I Jeg	let	not	it	ı	støvsuge vacuum. støvsuge	.clea		dapted from Vikner 1989: 145)
										_	article as well as the infinitive mmatical, see (19) and (21).
(18)	Sw:		Jag <i>I</i> *Jag	have		vritten		numret	ир	n	numret. number.the
(19)	Sw:		Jag <i>I</i> *Jag	skrev wrote skrev	i		p	it			
(20)	Sw:		Jag <i>I</i> *Jag	have		nattai	1	dammsı	. <i>cleo</i> uga	an	mattan. carpet.the adapted from Vikner 1987:262)

(21) Sw: a. Jag lät inte dammsuga **den**. *I let not vacuum.clean it*b. *Jag lät **den** inte dammsuga ____.

As we will show in Section 3, the mirror image arises if the particle verb or 'let' occurs in clause-initial position: In this case, OS becomes possible in Swedish but not in Danish.

Section 2 sets out the basics of our analysis which is couched in an Optimality-Theoretic framework. Section 3 discusses the differences between Danish and Swedish particle verb constructions (Section 3.1), and between Danish and Swedish causative constructions with 'let' (Section 3.2), and it is shown that while OS is possible in V2 contexts in Danish but not in Swedish, OS is possible in remnant VP-topicalisation contexts in Swedish but not in Danish. Section 4 summarises the main results.

2. AN OPTIMALITY THEORY APPROACH TO OBJECT SHIFT

In our Optimality Theory (OT) approach, we take OS to be motivated by the constraint SHIFT, which is based on the idea that the 'purpose' of OS is to move non-focused (or [–focus]) elements out of the VP; see Diesing (1992) and Diesing & Jelinek (1993).³ The constraint SHIFT outranks the constraint STAY that prohibits movement. SHIFT is satisfied if the pronoun is adjoined to the top VP, see e.g. the syntactic tree in (24).

- (22) SHIFT: A [-focus] constituent is left-adjoined to an extended VP that contains all VP-adjoined adverbials.
- (23) STAY: Don't move. (Grimshaw 1997:374)
- (24) Danish CP AdvP C'Hvorfor ĬΡ why 'læste! DΡ ľ read Peter 10 $\tilde{\mathrm{VP}}$ Peter VΡ DP det V2VР AdvP it aldrig Spec never $\widehat{\mathrm{v}^{\circ}}$ DP **OBJECT SHIFT**

Da:	P. 1	read	not the book / P. read it not	STAY BRANCH	SHIFT	STAY
full DP	13	a	S <u>V</u> Adv t _V <u>DP-O</u>		*	
		b	S <u>V DP-O</u> Adv t _V t _O	*!		*
pronoun		a	S V Adv t _V Pron-O		*!	
	喝	b	S <u>V Pron-O</u> Adv t _V t _O			*

Tableau 1. No full DP shift, obligatory pronominal OS (Danish).

Tableau 2. No full DP shift, optional pronominal OS (Swedish).

				STAY			
Sw:	P. 1	ead i	not the book / P. read it not	BRANCH	SHIFT	STAY	ex.
full DP	rg-	a	S <u>V</u> Adv t _V <u>DP-O</u>		*		(3a)
		b	S <u>V DP-O</u> Adv t _V t _O	*!		*	(3b)
pronoun		a	S V Adv t _V Pron-O		*		(4a)
	喀	b	S <u>V</u> <u>Pron-O</u> Adv t _V t _O			*	(4b)

Recall that weak pronouns and full DPs differ as to the applicability of OS in Danish and Swedish: OS is restricted to weak pronouns, full DPs cannot undergo OS, see the examples in (1)–(4) above. We therefore assume that the constraint STAY is differentiated as to syntactic complexity. In addition to the general constraint STAY, there exists a more specific constraint that prohibits movement of full DPs (see also the appendix).

(25) STAYBRANCH: Don't move a constituent that contains a branching node.

As illustrated in Tableau 1 and Tableau 2, the ranking STAYBRANCH >> SHIFT >> STAY permits only weak pronouns but not full DPs to undergo OS. In addition, recall that Danish and Swedish contrast as to the obligatoriness of OS: While pronominal OS is obligatory in Danish, it is optional in Swedish. Optionality can be accounted for in OT by a constraint tie, STAY <> SHIFT, which means that both relative rankings of the two constraints co-exist. Depending on the actual ranking, OS is required (SHIFT >> STAY) or prohibited (STAY >> SHIFT). Constraint ties are marked by a dotted line in the tableaux, between the constraints that are tied. (In terms of Müller's (2001b) classification of constraint ties, these would be ordered global ties.)⁴

In these and the following tableaux, only STAY-violations induced by OS are listed; STAY-violations induced by e.g. V°-to-I°-to-C° movement or VP-topicalisation are left out because they do not vary between competing candidates. The same holds for the violations of the constraint ORDER PRESERVATION, which we will turn to now.

Following Fox & Pesetsky (2005a, b), we will assume here that Holmberg's generalisation results from a high ranking condition on order preservation (see also Déprez 1994, Müller 2001a, Sells 2001, Williams 2003, Fox & Pesetsky 2005a, Koeneman 2006).

(26) ORDER PRESERVATION (ORDPRES): An independently moved constituent α must not precede a non-adverbial constituent β if the canonical position of α (or parts of α) follows the canonical position of β .⁵

Some remarks on the formulation of ORDPRES are in order here. First, 'independently moved' is relevant for cases where a complex constituent is moved, as e.g. in the VP-topicalisations discussed in Section 3 below. Crucially, movement of a complex constituent induces a violation of ORDPRES for each non-adverbial constituent crossed, independently of how many overtelements the moved constituent contains. As a result, topicalisation of an entire VP and topicalisation of a remnant VP give rise to the same number of violations of ORDPRES.

Secondly, we take the 'canonical position' of an element to be the lowest position where all case requirements are satisfied. This is crucial in cases where the base-generated position of an element differs from the position in which the element is assigned case or assigns case itself, as e.g. in particle verb constructions (Section 3.1), 'let'-constructions (Section 3.2) and double object constructions (see Engels & Vikner 2013a, b). If an element does not assign or is not assigned case, the canonical position is its base-generated position. If an element assigns case or is assigned case in a position different from its base-generated position, then the canonical position is the position where case assignment takes place (compare Section 3). If an element assigns case in more than one position, the canonical position is the highest of these positions (in terms of c-command).⁶ This restriction to canonical position means that on one hand, movement into a case-assigning or case-assigned position cannot possibly violate ORDPRES and that, on the other hand, ORDPRES is evaluated with regard to the case position of an element, and not with regard to its base-generated position (if the two should differ).

Dominance of ORDPRES over SHIFT predicts that OS is only possible if it maintains the canonical order of certain constituents.⁷ If the main verb stays *in situ*, OS gives rise to a fatal violation of ORDPRES (as the object would have to move across the verb) and is thus excluded; the object must remain *in situ* to the right of the main verb, as shown by the optimal candidate in Tableau 3.

For OS to be possible, the main verb must occur in a position to the left of the target position of OS, such that the relative order between verb and object is preserved. This can be guaranteed e.g. by V°-to-I°-to-C° movement illustrated in Tableau 4. (The restriction of ORDPRES to NON-ADVERBIAL constituents is necessary to permit OS across clause-medial adverbials.)

Tableau 3. No OS with in situ verb.

		D.1	ORD	G	G=	
Da:		P. has not read it	Pres	SHIFT	STAY	ex.
rg	a	S Aux Adv <u>V</u> <u>Pron-O</u>		*		(5a)
	b	S Aux <u>Pron-O</u> Adv <u>V</u> t _O	*!		*	(5b)

Tableau 4. OS with V°-to-I°-to-C° movement.

			Ord			
Da:		P. read it not	PRES	SHIFT	STAY	ex.
	a	S V Adv t _V Pron-O		*!		(2a)
B	b	S V Pron-O Adv t _V t _O			*	(2b)

However, OS does not presuppose V° -to- I° -to- C° movement of the main verb. As shown by the example in (7) above (repeated here as (27)), OS can also take place if a non-finite main verb occurs in clause-initial position. In fact, OS has to take place in this case even in Swedish, see (28).

As we have argued in Engels & Vikner (2013a:195–196) (see also Engels & Vikner 2013b), we take the construction in (27) not to involve V° -topicalisation as in (29), contra Holmberg (1999). Rather, we follow Fox & Pesetsky (2005a, b) in assuming that they involve remnant VP-topicalisation as in (30). (For theoretical and empirical problems with the approaches by both Holmberg (1999) and Fox & Pesetsky (2005a, b), see Broekhuis (2008: 254–260), Engels & Vikner (2013a: 195–202; 2013b).)

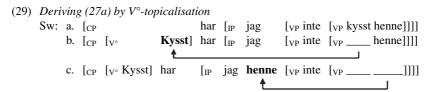


Tableau 5. OS with verb in SpecCP.

			Ord			
Sw:		Kissed have I her not	PRES	SHIFT	STAY	ex.
	a	[VP V tO] Aux S Adv Pron-O tVP		*!	*	(27b)
R	b	[_{VP} <u>V</u> t _O] Aux S <u>Pron-O</u> Adv t _{VP}			*	(28b)

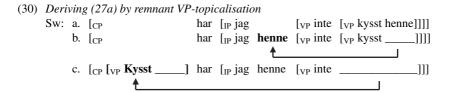


Tableau 5 shows how our OT analysis predicts that OS (i.e. placement of the object to the left of a clause-medial adverbial) is obligatory when a non-finite verb occurs in clause-initial position, even in Swedish where OS is otherwise optional (compare Tableau 2). Candidate a in Tableau 5, where the object is moved to a position below the clause-medial adverbial, violates both STAY and SHIFT; it is thus suboptimal to candidate b in Tableau 5, where the object occurs in OS position (compare the definition of SHIFT in (22) above).

In Holmberg's (1997, 1999) approach, remnant VP-topicalisation is ruled out by the assumption that Holmberg's generalisation is derivational, i.e. that it cannot be violated at any point in the derivation. The OT constraint ORDPRES, by contrast, is representational: Constraint violations are computed on the basis of the final structure of the candidates. Hence, although the individual steps of OS might violate ORDPRES, this is of no consequence as long as the verb is subsequently placed to the left of the shifted object so that their original precedence relation is re-established, satisfying ORDPRES on the surface.

The following section focuses on two particular differences between Danish and Swedish related to OS and remnant VP-topicalisation, which support the OT approach presented here, namely between Danish and Swedish particle verb constructions (Section 3.1), and between Danish and Swedish causative constructions with 'let' (Section 3.2).

3. TWO DANISH/SWEDISH DIFFERENCES CONCERNING OBJECT SHIFT

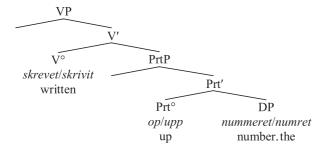
3.1 Particle verb constructions

That OS must be order preserving can also be observed in particle verb constructions. The Scandinavian languages differ as to the ordering of particle and object.⁸ In

Danish, the object precedes the verb particle, as in (31), whereas in Swedish, the object follows the particle, as in (32), repeated from, respectively, (14) and (18) above. This is completely independent of whether the object is a full DP or a weak pronoun.

Vikner (1987:263) and Haegeman & Guéron (1999:257–258), among many others, suggest that particle constructions have a structure parallel to prepositional phrases, i.e. that the particle (Prt°) is the head of a particle phrase (PrtP), and that Prt° may be followed by a complement DP, as in (33), to which it assigns a thematic role.

(33) Danish/Swedish



Haegeman & Guéron (1999:257–258) further suggest that particles do not assign case to their complement DPs, and that in English, there are two ways out of this predicament: DP-movement or particle adjunction.

Vikner (1987:263–265, 269; 2009:5–6) implements these two as follows: ONE option is that the DP moves to the specifier of the PrtP where it can be assigned case by the verb (much like exceptional case marking, ECM), see (34a) and candidate b in Tableau 6 and Tableau 7 below. The OTHER option is that the particle adjoins to the verb, which allows the case assignment properties of the verb to be shared with the particle, so that the DP may now be assigned case by the trace of the particle, see (34b) and candidate a in Tableau 6 and Tableau 7. Danish only allows DP-movement, see (31) above and Tableau 6, and Swedish only allows particle adjunction, see (32) above and Tableau 7.

Tableau 6. Particle verb construction (with DP-movement; Danish).

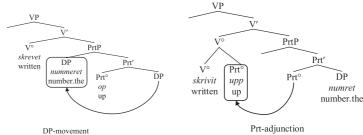
Da:		I have written the number up	*X°-ADJ	*ECM	STAY	ex.
	a	S Aux V-Prt t _{Prt} <u>DP</u>	*!		*	(31a)
rige .	b	S Aux V <u>DP</u> Prt t _O		*	*	(31b)

Tableau 7. Particle verb construction (with particle adjunction; Swedish).

Sw:		I have written up the number	*ECM	*X°-ADJ	STAY	ex.
B 3	a	S Aux V-Prt t_{Prt} <u>DP</u>		*	*	(32a)
ŀ	b	S Aux V <u>DP</u> Prt t _O	*!		*	(32b)

(34) a. Danish

b. Swedish



We suggest that the difference between the Obj–Prt sequence in Danish and the Prt–Obj one in Swedish can be accounted for by means of three constraints: CASE, which penalises DPs that are not assigned case, No X°-ADJUNCTION, which penalises particle adjunction as a means of achieving case assignment, and No EXCEPTIONAL CASE MARKING, which penalises the DP moving to SpecPrtP in order to be assigned case from the verb.

- (35) CASE: DPs must be case-marked. (Grimshaw 1997:374)
- (36) No X°-ADJUNCTION (*X°-ADJ): A head must not adjoin to a lexical verb.
- (37) NO EXCEPTIONAL CASE MARKING (*ECM): A head must not assign case to the specifier of its complement.

As we do not actually think that there are languages in which DPs are not assigned case, we assume that CASE is an inviolable constraint in the generator GEN (rather than a violable one in the evaluator EVAL). Thus, only candidates that satisfy CASE can be generated. This also guarantees that every canonical position of a case-assigning or case-assigned constituent contains at least a trace of this constituent.

The difference between Danish and Swedish in the ordering of verb particle and object can then be captured by a difference in the ranking of the two constraints: *X°-ADJ and *ECM.9 In Danish, *X°-ADJ is ranked higher than *ECM, necessitating movement of the object to SpecPrtP, whereas in Swedish, it is the opposite, *ECM

					Ord			
Da:		I threw it not out	*X°-ADJ	*ECM	PRES	SHIFT	STAY	ex.
	a	SV Adv [$_{VP}$ t_{V} -Prt [$_{PrtP}$ t_{Prt} \underline{O}]	*!			*	*	(38a)
	b	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		*		*!	*	(38b)
	С	$S V O Adv [_{VP} t_{V}-Prt [_{PrtP} t_{O}]$	*!		*		**	(38c)
B	d	S V O Adv [VP tV [PrtP t'O Prt tO]		*			**	(38c)

Tableau 8. OS with moved particle verb (Danish).

Tableau 9. No OS with moved particle verb (Swedish).

					Ord			
Sw	:	I threw not out it	*ECM	*X°-ADJ	PRES	SHIFT	STAY	ex.
鸣	a	S V Adv [$_{VP}$ t $_{V}$ -Prt [$_{PrtP}$ t $_{Prt}$ \underline{O}]]		*		*	*	(39a)
	b	$S V Adv [_{VP} t_V [_{PrtP} \underline{O} Prt t_O]]$	*!			*	*	(39b)
	С	S V O Adv [VP tV-Prt [PrtP tPrt tO]]		*	*!		**	(39c)
	d	S V O Adv [VP tV [PrtP t'O Prt tO]]	*!				**	(39c)

overrides ${}^*X^{\circ}$ -ADJ, such that the particle must adjoin to the verb to make case assignment possible. This is shown in Tableau 6 and Tableau 7. The object occurs in its canonical position in the optimal candidate in Tableau 6 and Tableau 7, respectively. It is thus these orders which will be relevant for computing of ORDPRES.

Consider now the interaction between OS and particle verbs. If the particle verb itself is finite and thus moves to C° because of V2, a pronominal object of a particle verb has to undergo OS in Danish, as is shown in (38), but it cannot do so in Swedish, see (39).

This contrast is expected in the present analysis because of ORDPRES. As shown in Tableau 8 and Tableau 9, ORDPRES plays no part in the choice between the two non-adjoining candidates, b and d, as neither candidate violates it (the particle also follows the object in the canonical order). The crucial constraint in the Danish Tableau 8 then becomes SHIFT, which favours the candidate with OS. ORDPRES does play a part, however, in the choice between the two adjoining candidates, a and c (see the Swedish Tableau 9), as it is fatally violated by c, where the particle precedes the object in the canonical order.

Thus, the dominance of ORDPRES over SHIFT predicts that OS can take place in particle verb constructions with V2 movement of the particle verb in Danish but not in Swedish, where the object would have to cross the particle. However, note that OS is possible in Swedish particle verb constructions if the particle occurs in SpecCP (compare the verb-topicalisation construction in (7) above). This is expected as the relative order of particle and object is maintained in this case, satisfying ORDPRES.¹⁰

```
(40) Sw: a. UT kastade dom mej inte (bara ned för trappan).

out threw they me not (only down stairs.the)
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 1999:17)
```

Whereas the definition of Holmberg's generalisation in (6) above only makes predictions as to the relative order of the object and elements to its left, the present analysis, with ORDPRES ranked higher than SHIFT, forces maintenance of the order of the object relative to all non-adverbial elements, both to the left and to the right of the object. It is thus expected that OS during remnant topicalisation of a particle verb including the particle is possible in Swedish, where the object is right-peripheral in VP, but not in Danish, where the object precedes the particle inside VP. This expectation is borne out, as illustrated in (41) and (42).

```
(41) Da: a. *[VP Lukket
                               ind den] har
                                                        ikke ...
                  let
                               in
                                   it
                                         have I
                                                        not
            [VP Lukket den ind _
                                        har
                                                        ikke ...
                                              jeg
         c. *[VP Lukket
                              ind ____ har
                                              jeg den ikke ...
(42) Sw: a.
            [VP Släppt
                              in den] har
                                             jag
                                                      inte ...
                              in it
                                       have I
                                                      not
          b. *[VP Släppt den in ___] har
                                             jag
                                                      inte ...
          c. [VP Släppt
                              in ] har
                                             jag den inte ...
                                               ((42c) is from Holmberg 2005:148)
```

Because the particle in Tableau 10 and Tableau 11 is part of the remnant VP that moves to SpecCP, ORDPRES does not play a part in the choice between the two adjoining candidates, a and c, as the order remains V–Prt–Obj. The crucial constraints in the Swedish Tableau 11 then become SHIFT and STAY, which are tied, and thus allow both the candidate with OS, see (42c) above, and a candidate with full VP-topicalisation, see (42a). ORDPRES does play a part, however, in the choice between the two non-adjoining candidates, b and d (see the Danish Tableau 10), as it is fatally violated by d, where the particle precedes the object at the surface, but follows it in the canonical order.

Thus, Danish and Swedish display mirror images as regards OS in particle verb constructions. The canonical order in Danish, Obj-Prt, permits OS in case the particle

			Ord			
Da: Let it in have I not	*X°-ADJ	*ECM	PRES	SHIFT	STAY	ex.
a [$_{\text{VP}}$ V-Prt t_{Prt} $\underline{\text{Pr-O}}$] Aux S Adv t_{VI}	*!			*	*	(41a)
$b \left[V_P V \underline{Pr-O} \mathbf{Prt} t_O \right] Aux S$ Adv t_{VI}	,	*		*	*	(41b)
c [$_{VP}$ V-Prt t_{Prt} t_{O}] $\underline{Aux S}$ Pr-O \underline{Adv} t_{VP}	*!				**	(41c)
d [vP V t'O Prt tO] Aux S Pr-O Adv tv		*	*!		**	(41c)

Tableau 10. No OS with remnant VP-topicalisation of particle verb (Danish).

Tableau 11. OS with remnant VP-topicalisation of particle verb (Swedish).

			Ord			
Sw: Let in have I it not	*ECM	*X°-Adj	PRES	SHIFT	STAY	ex.
$a [VP V-Prt t_{Prt} Pr-O] Aux S$ Adv t_{VP}		*		*	*	(42a)
$b \left[v_P \mathbf{V} \underline{Pr-O} \mathbf{Prt} t_O \right] Aux S$ Adv t_{VP}	*!			*	*	(42b)
c [VP V-Prt tPrt tO] Aux S Pr-O Adv tVF		*			**	(42c)
$d \left[v_P \mathbf{V} t'_O \mathbf{Prt} t_O \right] Aux S \underline{Pr-O} Adv t_{VF}$	*!		*		**	(42c)

verb undergoes V° -to- I° -to- C° movement but prohibits OS in case particle verb and particle undergo remnant VP-topicalisation. In contrast, Swedish, which has Prt–Obj order, does not permit OS if the particle verb undergoes V° -to- I° -to- C° movement, but OS is possible in remnant VP-topicalisation constructions. This follows from the fact that OS in both languages has to preserve the canonical order (ORDPRES >> SHIFT).

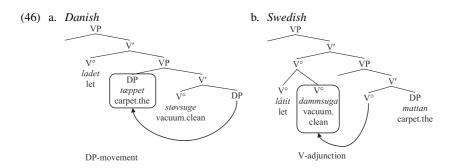
3.2 Causative constructions with 'let'

The situation concerning 'let'-constructions is parallel to the one concerning particle verb constructions. In Danish, the object of a subjectless infinitive under the causative verb *lade* 'let' precedes the infinitival verb, as in (43), whereas it follows the infinitive (*låta*) in Swedish, as in (44), repeated from (16) and (20) above; see Vikner (1987:262–266) and many others.

In the present analysis, this contrast again follows from the differences in the relative ranking of *X°-ADJ and *ECM. The infinitive embedded under 'let' may or may not assign the external theta-role. If it does not assign its external theta-role as in (43) and

(44), it also does not assign accusative case to its object (Burzio's generalisation); see Vikner (1987). In Danish, the object undergoes movement to SpecVP as in (46a) to be assigned case ($^*X^\circ$ -ADJ >> *ECM) while the infinitival verb adjoins to 'let' in Swedish, as shown in (46b), to make case assignment possible (*ECM >> $^*X^\circ$ -ADJ). This is thus similar to Tableau 6 and Tableau 7 above.

(45) Danish/Swedish VP V' ladet/låtit let V' V° DP støvsuge/dammsuga tæppet/mattan



vacuum.clean

carpet.the

As they reflect the canonical order, the structures in (46a) and (46b) are relevant for computing ORDPRES. If 'let' now undergoes finite verb movement, OS into the 'let'-clause becomes possible in Danish, as is shown in (47), but not in Swedish, see (48).

This is expected by ORDPRES. Object Shift preserves the relative ordering of object and infinitive in Danish but not in Swedish, where the object would have to move

across the infinitival verb. This is thus similar to the situation in Tableau 8 and Tableau 9 above.

In contrast, if the infinitive undergoes VP-topicalisation together with non-finite 'let', stranding of the object is impossible in Danish, as shown in (49), whereas it is acceptable in Swedish, see (50). Again, this is predicted by ORDPRES: Stranding of the object maintains the relative ordering of object and infinitive in Swedish but not in Danish, where the object is non-peripheral within VP. This situation is thus the same as the one in particle verb constructions analysed in Tableau 10 and Tableau 11 above:

(49)	Da:	_		_	nok be nen		ket at der ligger	en de	l krum	nmer j	oå tæ	ppet i
		(I d		otice	that th	ere a	re a lot of crum	bs on i	the ca	rpet i	n the	dining hall,
		a.	*	$[_{\mathrm{VP}}$	ladet		støvsuge	det]	har	jeg		ikke.
					let		vacuum.clean	it	have	I		not
		b.		$[_{\mathrm{VP}}$	ladet	det	støvsuge]	har	jeg		ikke.
		c.	*	$[v_P]$	ladet		støvsuge]	har	jeg	det	ikke.
(50)	Sw:	•	did n	_			t ligger en del s ere a lot of crum		•			
		a.		. [_{VP}	låtit		dammsuga	den]	har	jag		inte.
					let		vacuum.clean	it	have	I		not
		b.	*	. [VP	låtit	den	dammsuga]	har	jag		inte.
		c.	?	. [_{VP}	låtit		dammsuga]	har	jag	den	inte.
										(And	ers H	olmberg, p.c.

Summing up, contrasts as to the applicability of OS in 'let'-constructions in Danish and Swedish are expected due to the differences in the canonical order of object and infinitival verb (i.e. the relative ranking of *X°-ADJ and *ECM). Object Shift is only possible as long as it is order preserving, as accounted for by the ranking ORDPRES >> SHIFT.

In addition, notice that if the infinitive has an overt subject, the object follows the infinitival verb in both Danish and Swedish, see (51) and (52). 12

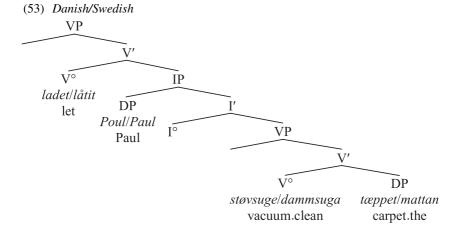
```
(51) Da: a. Jeg
                  har
                       ladet ham
                                          støvsuge
                                                        tæppet.
                             him
                  have let
                                          vacuum.clean carpet.the
         b. *Jeg har
                       ladet ham tæppet støvsuge
(52) Sw: a. Jag
                  har
                       låtit honom
                                            dammsuga
                                                          mattan.
                  have let
                            him
                                            vacuum.clean carpet.the
         b. *Jag har
                       låtit honom mattan dammsuga
```

Given the presence of an infinitival subject, we assume the existence of an infinitival clause, namely the IP in the syntactic tree in (53). As the

					Ord			
Da:		I let him not vacuum-	clean it		PRES	SHIFT	STAY	ex.
	a	S 'let'	Adv Pron-S	Inf Pron-O		**!		(54a)
138	b	S 'let' Pron-S	Adv t _S	Inf Pron-O		*	*	(54b)
	С	S 'let' Pron-S Pron-O	Adv t _S	Inf t _O	*!		**	(54c)

Tableau 12. OS of infinitival subject but not of infinitival object in 'let'-constructions.

infinitive assigns its external theta-role, it is also able to assign accusative to its object.



If 'let' is finite and thus undergoes V° -to- I° -to- C° movement, OS of the infinitival subject into the 'let'-clause is possible while OS of the infinitival object is prohibited in both languages, as expected by ORDPRES >> SHIFT: OS of the infinitival subject maintains the canonical order while OS of the infinitival object does not as the object would have to cross the infinitive. This is illustrated in Tableau 12.

(54)	Da:	a.	*Jeg	lod		ikke	ham	støvsuge	det.
			I	let		not	him	vacuum.clean	it
		b.	Jeg	lod	ham	ikke		støvsuge	det.
		c.	*Jeg	lod	ham det	ikke		støvsuge	
(55)	Sw:	a.	Jag	lät		inte	honom	dammsuga	den.
(55)	Sw:	a.	Jag I	lät let				dammsuga vacuum.clean	
(55)	Sw:		I	let	honom	not	him	U	

However, if the infinitive undergoes VP-topicalisation together with non-finite 'let', neither the infinitival subject nor the infinitival object may be stranded; see (56) and (57).

```
(56) Da: Jeg har godt nok bemærket at at der ligger en del krummer på tæppet i
          spisesalen men . . .
              (I did notice that there are a lot of crumbs on the carpet in the dining hall,
                                                                               ikke.
               ... [VP ladet ham støvsuge
                                                   det] har
                                                                jeg
                        let
                              him
                                    vacuum.clean it
                                                         have
                                                                               not
                                                                               ikke.
          b. * . . . [VP ladet
                                    støvsuge
                                                   det] har
                                                                jeg ham
          c. * . . . [VP ladet ham støvsuge
                                                       _] har
                                                                          det ikke.
                                                                jeg
                                                               jeg ham det ikke.
          d. * . . . [vP ladet
                                    støvsuge
                                                   ] har
             Jag har nog märkt att det ligger en del smulor på mattan i matsalen,
(57) Sw:
             (I did notice that there are a lot of crumbs on the carpet in the
             dining hall, but)
              ... [VP låtit honom dammsuga
                                                   den] har
                                                                                inte.
                                                              jag
                      let
                           him
                                    vacuum.clean it
                                                         have I
                                                                                not
          b. * ... [VP låtit
                                    dammsuga
                                                   den] har
                                                               jag honom
                                                                                inte.
          c. * . . . [VP låtit honom dammsuga
                                                      1
                                                        har
                                                              jag
                                                                           den inte.
          d. * . . . [VP låtit _
                                   dammsuga
                                                   ___] har
                                                              jag honom den inte.
```

That OS of the infinitival subject is not possible under remnant VP-topicalisation is expected in the present analysis since the infinitival subject occurs in a non-peripheral position. In other words, stranding of the infinitival subject in OS position violates ORDPRES. However, the infinitival object cannot be stranded either, even though it is right-peripheral within VP and consequently maintains the canonical ordering relations (satisfying ORDPRES). The ungrammaticality of (56c) and (57c) thus cannot have to do with order preservation. Rather, the above data suggest that OS is clause-bound: In the ungrammatical sentences in (56c) and (57c), the infinitival object is stranded in the OS position of a higher clause, namely the 'let'-clause. Hence, a constituent may apparently not be moved out of its own clause by OS. This may be derived by a constraint CLAUSE-BOUNDEDNESS (CLAUSEBOUND), which prohibits an element from moving out of its own clause. Dominance of CLAUSEBOUND over SHIFT then rules out stranding of an object in OS position of a higher clause. 13,14

Note that the subject of the infinitive belongs to the 'let'-VP by virtue of being assigned case by 'let'. As it does not violate CLAUSEBOUND, OS of the subject of the infinitive is thus expected to be possible as long as it is order preserving; compare (54b)/(55b) with (56b)/(57b). Similarly, the object of a subjectless infinitive belongs to the extended 'let'-VP: In Danish, it is assigned case by 'let' (in the specifier of its complement), in Swedish, the infinitive adjoins to 'let' and thus forms an extended VP with 'let'; compare (46) above. Thus, OS to the extended 'let'-VP complies with CLAUSEBOUND and is licit as long as ORDPRES is satisfied; see the contrast between (47b) and (48b) as well as between (49c) and (50c) above.

Summing up, the contrasts between Danish and Swedish as to OS in particle verb constructions and 'let'-constructions support the order preservation approach

suggested here. Due to differences in case assignment captured by the relative ranking of *X°-ADJ and *ECM, an object precedes the particle and the subjectless infinitival verb in Danish but follows them in Swedish. As a consequence, the two languages display mirror images with regard to OS in these constructions. The ranking ORDPRES >> SHIFT predicts that OS is only possible if it retains the canonical order of the VP-internal elements. Finite verb movement of the particle verb/'let' paves the way for OS in Danish but not in Swedish, where the object would have to cross the particle/infinitival verb. In contrast, stranding of the object in OS position during remnant VP-topicalisation is possible in Swedish particle verb constructions and subjectless 'let'-constructions but not in Danish ones as the object is right-peripheral within VP in the former but not in the latter. Moreover, although the object is rightperipheral in 'let'-constructions with an infinitival subject, stranding it during remnant VP-topicalisation is ruled out due to the fact that OS is clause-bound (CLAUSEBOUND >> SHIFT). 'Let' is not involved in assigning case to the object in this case; the object thus does not belong to the extended 'let'-VP and it may not undergo OS into the 'let'-clause.

4. CONCLUSION

On the basis of a set of less commonly discussed data concerning remnant VP-topicalisation, the present OT approach suggests that Holmberg's generalisation should be accounted for in terms of order preservation, as formulated in the violable constraint ORDPRES.

This order preservation approach to OS finds support in the contrasts discussed between Danish and Swedish particle verb constructions and 'let'-constructions. Differences in the VP-internal object position (V–DP–X in Danish and V–X–DP in Swedish) were taken to result from differences in case assignment, and this was shown to account for the mirror image sequences with regard to OS in clauses with finite verb movement of the matrix main verb (OS possible in Danish but not in Swedish) and clauses with remnant VP-topicalisation (OS possible in Swedish but not in Danish).

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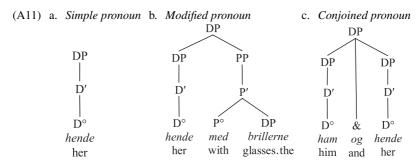
APPENDIX. SYNTACTIC COMPLEXITY OF PRONOUNS

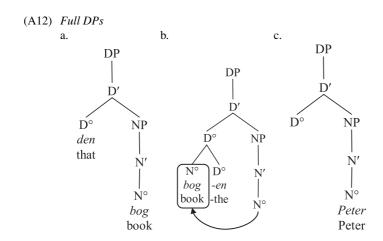
The examples in (1)–(4) repeated below as (A1)–(A4) have shown that in Danish and Swedish, OS is restricted to weak pronouns.

(A1) Da:		HvorforlæstePeteraldrig_whyreadPetermever*HvorforlæstePeterden her bogaldrig_	
		5 5 -	(Vikner 2005:394)
(A2) Da:		*Hvorfor læste Peter aldrig der why read Peter never it Hvorfor læste Peter den aldrig	
(A3) Sw:			denna boken? this book.the ?
(A4) Sw:		VarförlästePeteraldrigden?whyreadPeterneveritVarförlästePeterdenaldrig?	
In contras	t, al	so full DPs may optionally undergo OS in Ice	landic (see also note 1).
(A5) Ic:		Af hverju las Pétur aldrei why read Pétur never Af hverju las Pétur þessa bók aldrei	
(A6) Ic:		*Af hverju las Pétur aldrei ha why read Pétur never it Af hverju las Pétur hana aldrei	
but also s and (A8),	ynta are	etion note that not only a full DP like <i>den her be</i> actically complex pronouns, i.e. modified or context excluded from OS in Danish and Swedish. ergo OS, shown in (A9) and (A10).	onjoined ones as in (A7)
(A7) Da:		Hvorfor læste Peter aldrig why read Peter never *Hvorfor læste Peter den her aldrig	this here

(A8) Da: a. Han så ikke ____ dig og hende sammen. you and her he saw not together b. *Han så dig og hende ikke sammen. (Diesing & Jelinek 1993:27) (A9) Ic: a. Af hverju las Pétur aldrei bessa hérna? read Pétur this here why never b. Af hverju las Pétur **þessa hérna** aldrei (Vikner 2005:417) (A10) Ic: a. Ég **þekki** ekki __ hann og hana. know not him and her b. Ég **þekki hann og hana** ekki _ (Diesing & Jelinek 1993:27)

The difference between simple pronouns and all other DPs is that the former are DPs that do not contain a branching node whereas the latter are DPs that contain a branching node (compare (A11a) with (A11b, c) and (A12a–c) below). This insight forms the basis for the constraint STAYBRANCH in (25) above.¹⁵





NOTES

1. In Icelandic (Ic), OS is possible with both weak pronouns and full DPs.

(i)	Ic:	a.	*Af hverju	las	Pétur		aldr	ei	_ h	ana?	
			why	read	Pétur		neve	er	i	<u> </u>	
		b.	Af hverju	las	Pétur	hana	aldr	ei		?	
											(Vikner 2005:394)
(ii)	Ic:	a.	Af hverju	las	Pétur			aldrei		_ þe	ssa bók?
			why	read	Pétur			never		thi	s book
		b.	Af hverju	las	Pétur	þessa	bók	aldrei			?
											(Vikner 2005:394)

Moreover, certain dialects such as Älvdalsmålet (Äl) do not permit OS at all; see Garbacz (2010).

- 2. In this article we discuss OS of weak pronouns with entity antecedents. When the antecedent is a VP or a sentence, OS is sometimes not possible or dispreferred in Danish (see Andréasson 2008, Bentzen et al. 2013 this issue, Ørsnes 2013 this issue; see also note 3 below). In the examples, an underlined gap marks a position that a boldface expression has moved out of (often the position where this boldface expression normally occurs).
- 3. In terms of information structure a sentence contains information that is new to the discourse (focus) and information that is old (presupposition). VP corresponds to the focus. As material inside VP is interpreted as focused, constituents that are not focused move out of the focus domain (VP), if possible. We consider here such non-focused constituents to target a position adjoined to the extended VP; see the syntactic tree in (24) below. Crucially, the OS position precedes all VP-adjoined, clause-medial adverbials. We take this to follow from the fact that (certain) adverbials are sensitive to focus-background structure. Similarly to focus particles they may be focus-inducing, and thus a non-focused object should appear outside the adverbial's focus domain (for more details see Engels 2012b and references therein).

As our constraint SHIFT refers to [-focus], it is thus predicted that focused pronouns will not undergo OS (due to the violation of STAY). This prediction is borne out.

```
(i) Da: a. Hvorfor læste Peter aldrig DEN?

why read Peter never it

b. *Hvorfor læste Peter DEN aldrig _____?

(Vikner 2005:417)
```

In contrast, Andréasson (2010, 2013 this volume) points out that occurrence of an object pronoun in shifted and non-shifted position is influenced by its cognitive status: There is

a weak correlation between whether a pronominal object shifts or not and whether this pronominal object has a nominal antecedent or a propositional antecedent; see (i).

```
    (ii) Sw: a. [Agnes sa någonting på tyska.] Förstod du det inte?
        Agnes said something in German understood you it not
        b. [Agnes köpte boken.] Förstod du inte det?
        Agnes bought book.the understood you not it (Andréasson 2010: 30)
```

However, what is important is that both unstressed pronouns with a nominal antecedent as well as ones with a propositional antecedent may occur in shifted and non-shifted position in Swedish (see Andréasson 2008). Moreover, Anderssen, Bentzen & Rodina (2011) claim that only weak pronouns that refer to an individuated referent can undergo OS in Norwegian (No); see the contrast between (iii) and (iv).

```
(iii) No: A: Spiste dere fisken idag?
                   you fish.the today
             ate
         B: *Nej, jeg fant
                           ikke den.
             no
                 Ι
                      found not it
         B': Nej, jeg fant den ikke ____.
                                                      (Anderssen et al. 2011:42)
(iv) No: A: Hvad med fisk til middag?
            what about fish for dinner
         B: Nej,
                   Per spiser
                                   ikke det.
             no
                   Per eats
                                   not it
         B': #Nej, Per spiser det ikke _
                                                      (Anderssen et al. 2011:42)
```

- 4. Dominance of both STAY-constraints over SHIFT rules out OS altogether as observed in Älvdalsmålet, and the ranking STAYBRANCH <> SHIFT >> STAY accounts for obligatory OS of full DPs and optional OS of weak pronouns as observed in Icelandic (compare note 1).
- 5. This restriction of β to non-adverbial constituents is the same insight as in Stepanov's (2001) 'late merge' analysis. However, because our approach here is representational, we cannot directly utilise Stepanov's derivational analysis where adverbials are inserted after most other syntactic processes have taken place.
- 6. For instance, this is the case in double object constructions. Assuming a Larsonian shell structure (Larson 1988), the main verb undergoes movement from the head of the lower VP shell to the head of the higher VP shell. This higher position is the canonical position of the verb, as this is where the verb assigns case to the indirect object (in the specifier of its complement).

```
(i) Da: Jeg har [VP] givet [VP] hende den]]. 

I have given her it
```

Note that ORDPRES is not always ranked above all constraints that motivate movement, compare e.g. the cross-linguistic variation concerning Negative Shift (Christensen 2005; Engels 2011, 2012a): Movement of a negative object across a main verb *in situ* is not acceptable in Norwegian, as is shown in (i) below, but it is possible in all other Scandinavian languages, see (ii). In other words, the constraint that motivates Negative Shift is ranked lower than ORDPRES in Norwegian but higher than ORDPRES in the other languages.

- (i) No: *Jeg har **ingenting** sagt. *I have nothing said*
- (ii) Da: Jeg har ingenting sagt.
- 8. In Norwegian, Icelandic and Faroese, the object has to precede the particle if it is a pronoun but it may precede or follow the particle if it is a full DP, as is shown in (i) and (ii) (Hulthén 1947:161–163; Åfarli 1984:1; Svenonius 2003:442; Thráinsson et al. 2004:247; Vikner 2005:399; Thráinsson 2007:34):

```
(i) No: a. Jeg
                      ikke skrevet
                 har
                                               opp nummeret.
                 have not
                            written
                                                    number.the
                                               ир
        b. Jeg
                       ikke skrevet nummeret opp
(ii) No: a. *Jeg har
                      ikke skrevet
                                               opp det.
                 have not
                           written
                                               ир
                                                    it
        b. Jeg
                 har
                      ikke skrevet det
                                               opp _
```

- 9. An anonymous reviewer suggests that an alternative analysis might take this difference between Danish and Swedish to be that particle phrases are head-initial in Swedish and head-final in Danish (resulting e.g. from different rankings of two constraints HD-LFT(PARTICLE) and HD-RIGHT(PARTICLE)). Because such a directionality analysis could not possibly carry over to 'let'-causatives, whereas our analysis in terms of *X°-ADJ and *ECM does in fact carry over (as shown in Section 3.2 below), we prefer the latter analysis.
- 10. The examples in (40) would seem to indicate that adjunction of the particle to the verb actually takes place at LF (see also Vikner 2009): As topicalisation is phrasal movement (not head movement), occurrence of the particle in SpecCP must involve remnant topicalisation of PrtP, as illustrated in (i).

Notice that this would not be the only case of X° -adjunction in Danish and Swedish to take place at LF, as also V° -to- $^{\circ}$ I movement in these two languages must be assumed to take place at LF (Vikner 1997).

- 11. The two acceptable alternatives are predicted by the constraint tie here. In other cases, however, we have to assume differences in the input specifications in order to derive alternative structures (see Engels & Vikner 2006, 2013a, b).
- 12. Notice that (52a) and (55a, b) show that Swedish actually has ECM constructions, as presumably *Paullhonom* is assigned accusative by the matrix verb *låta*. This might seem unexpected given the high ranking in Swedish of *ECM, but actually, all that the Swedish ranking *ECM >> *X°-ADJ predicts is that adjunction is preferred to ECM, and so we would still expect ECM to be a possibility in cases where adjunction is not an option, as

(52a) and (55a, b). This may also explain the possibility of ECM in (i), where presumably the passive affix -s on the embedded verb prevents adjunction:

(i)	Sw:	Jag	har	låtit	mattan	dammsugas
		I	have	let	carpet.the	vacuum.clean.PASS
						(adapted from Vikner 1987:266

- 13. Note that SHIFT does not make any requirements as to which extended VP a shifted object should adjoin to, the extended VP of the object's own clause or the extended VP of a higher clause. While adjunction to the 'let'-VP is ruled out by the violation of CLAUSEBOUND, adjunction to the extended infinitival VP would be ruled out by ORDPRES in remnant VP-topicalisation constructions such as (56) and (57) above.
- 14. Other types of movement such as *wh*-movement, topicalisation and subject raising are not clause-bound (i.e. the constraints that trigger these movements outrank CLAUSEBOUND). These movement operations need not be order preserving either. That order preservation and clause-boundedness are independent of each other is shown by German (Ge) scrambling, which need not retain the canonical order but which is clause-bound.

(i)	Ge:	a.		weil	ich		glaube,	dass die Lösung	niemand
				because	I		believe	that the solution	nobody
				gefui	nden	hat.			
				foun	d	has.			
		b.	*	weil	ich	die Lösung	glaube,	dass	niemand
				gefui	nden	hat.			

15. This attempt to capture the difference between simple pronouns and all other DPs is thus purely syntactic, as opposed to e.g. Vogel (2006), which also employs phonological constraints.

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