

HOLMBERG'S GENERALIZATION AND LOCALITY

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QUESTION:

What is the scope and correct characterization of Holmberg's Generalization (HG)?

Answers in the literature:

(I) HG is about V raising. Object Shift (OS) is dependent on V-movement (Chomsky 1993; Bobaljik 1995, 2002; Bobaljik & Jonas 1996; Alexiadou and Anagnostopoulou 2001 and others).

(II) HG subsumes blocking effects of any intervening overt category (V, P, Particle, Argument XP). OS cannot take place across any phonologically visible category, except adjuncts (Holmberg 1986, 1999 and Sells 2001; Chomsky 2001; Wagner 2002; Williams 2003; Fox and Pesetsky 2003).

PRESENT VIEW:

What is special in OS is the V-raising requirement. Other intervention effects are subsumed under A-movement locality.

Arguments:

(a) Environments where OS takes place across phonologically visible non-adjunct categories:

- OS may take place across subjects
- OS may invert the relative order of indirect object (IO) and direct object (DO)

(b) Correlation I (Anagnostopoulou 2002; 2003):

OS of a DO across an IO is possible if the DO can undergo passivization across the IO

Successive cyclic movement through multiple specifiers (Chomsky 1995; Ura 1996; Richards 1997; Anagnostopoulou 2003) provide a correct characterization of long OS (object across subject, DO across IO) and passives (DO across IO).

(c) Correlation II (Bobaljik 2002):

An object which can only appear in the post-particle position is blocked from further OS and passive. An object that can appear in the pre-particle position is allowed to undergo further OS and passivization.

(c) Correlation III (Anagnostopoulou 2002; 2003):

OS of a DO across an IO is possible if the IO moves to C just as raising of a lower subject across a higher experiencer is possible if the experiencer moves to C

The movement of an intervener strategy is not limited to OS (contra e.g. Holmberg 1999; Fox and Pesetsky 2003) but is also attested in NP-movement. Movement of an intervener to v, T and C permits longer than expected A movement in passives, unaccusatives, raising, cliticization .

OUTLINE

Section 1:	Background on HG
Section 2:	Problems for Holmberg's (1999) HG
Section 3:	Correlation I
Section 4:	Correlation II
Section 5:	Correlation III
Section 6:	Conclusions

1. BACKGROUND

1.1. HG: CORE CASES

Scandinavian OS is dependent on verb movement (as in (1) from Swedish):

- (1)
- | | | | | | |
|----|-----------|--------|--------------|------|---|
| a. | Jag | kysste | henne | inte | [_{VP} t _v t _o] |
| | I | kissed | her | not | |
| b. | *Jag | har | henne | inte | [_{VP} kysst t _o] |
| | I | have | her | not | kissed |
| c. | *...att | jag | henne | inte | [_{VP} kysste t _o] |
| |that | I | her | not | kissed |

OS of pronouns and DPs in Icelandic, IO DPs and IO/DO pronouns in Swedish and Norwegian, IO/DO pronouns in Danish are subject to the V-raising condition exemplified in (1) (Holmberg 1986; Vikner 1995; Holmberg & Platzack 1995; Bobaljik 1995; Bobaljik & Jonas 1996; Holmberg 1999 among others).

Accounts of HG as a V-raising requirement:

Chomsky 1993; Bobaljik & Jonas 1996:

V-raising is required for Locality (Spec,VP and Spec,AgrO are rendered equidistant from the complement of V position, and the DO can move across Spec,VP to target Spec,AgrO).

Bobaljik 1995, 2002:

In non V-raising environments, inflectional morphology (in Infl) combines with the verb stem (in VP) via PF merger which requires adjacency. OS is illicit in because the shifted object disrupts the required adjacency relation between the affix and its host.

1.2. EXTENDING THE SCOPE OF HG

Holmberg (1986; 1999): The verb movement requirement is part of a more general Condition preventing OS across any phonologically visible category within VP:

**OS across a Preposition*

- (2) a. *Jag talade **henne** inte med t_o
 I spoke her not with
 b. Jag talade inte med med **henne**

**OS across an IO*

- (3) a. *Jag gav **den** inte Elsa t_o
 I gave it not Elsa_{IO}
 b. Jag gav inte Elsa den

**OS across a Particle*

- (4) a. *Dom kastade **mej** inte ut t_o
 They threw me not out
 b. Dom kastade inte ut **mej**

Holmberg's (1999: 15) formulation of HG (Extended HG):

- (5) OS cannot apply across a phonologically visible category asymmetrically c-commanding the object position except adjuncts

Prediction of the Extended HG: OS is licit if the visible non-adjunct category is moved to a higher position leaving a trace in VP. **V-Raising** is just one case falling under (5). Other cases are:

(a) *Topicalization of the c-commanding participle:*

(6) Kysst har jag **henne** inte (bara hållit henne
Kissed have I her not (only held her
i handen)
by the hand

(b) *Wh-Movement and Topicalization of the c-commanding IO:*

(7) a. Vem_{IO} gav du **den**_{DO} inte t_{IO} t_{DO}?
Who gave you it not
'Who didn't you give it to?'
b. Henne_{IO} visag jag **den**_{DO} helst inte t_{IO} t_{DO}
Her show I it rather not
'I'd rather not show it to her'

(c) *Fronting of the c-commanding particle:*

(8) UT_P kastade dom **mej**_O inte t_P t_O (bara ned
Out threw they me not only down
för trappan)
the stairs)
'They didn't throw me OUT (.....)'

All these facts are subsumed under (9) (Holmberg 1999: 8):

(9) *The Object Shift Filter: *Obj Adv X⁰ t_o unless X⁰ is phonologically empty*

Holmberg's Account of (5)/(9): OS takes place in the component of Stylistic Syntax (sensitive to focus, prosody and phonological features). Since it takes place at PF OS can apply across a trace of any type (but not across overt material). The fact that V-topicalization, IO-wh-movement and particle fronting feed OS provides evidence that OS does not respect the Extension Condition: it can apply only after the complete sentence is constructed, moving an object to a sentence medial position.

A different line of approaches which crucially rely on the extended HG :

Williams (2003): OS is subject to Shape Conservation. The original order of elements in the VP is conserved under OS.

Fox & Pesetsky (2003):

(10) *Linearization Preservation*

The linear ordering of syntactic units is affected by Merge and Move *within* a Spell-Out Domain, but is fixed once and for all at the end of each spell-out Domain

Movement is possible from the non-edge of a relevant domain so long as the previously established linearization is not disrupted. OS is subject to HG because it is movement from the non-edge. OS may cross an intervener before the intervener moves out of the

way. What is necessary is that spell-out retains the linear order that would obtain before OS, i.e. the intervener must move to the left of the object to restore the original order.

Consequences:

- OS does not need to be viewed as PF movement
- OS does not apply counter-cyclically

2. PROBLEMS FOR HOLMBERG'S (1999) HG

Section 2.1. Two counterexamples to the Holmberg's Extended HG: OS of a single object across a higher non-adjunct category.

Section 2.2. A further counterexample: OS of two objects.

2.1. OS OF A SINGLE OBJECT ACROSS A HIGHER CATEGORY

Two environments where the V-raising requirement on OS is observed and yet the object shifts across a phonologically visible non-adjunct category:

(I) Object Shift across a VP-internal subject in Icelandic

In Icelandic (Thráinsson 1986; Jonas & Bobaljik 1993; Jonas 1996; Ura 1996, 2000; Alexiadou & Anagnostopoulou 2001) OS can take place across the subject when the subject is indefinite/quantificational:

- (11) a. það luðu sennilega husið [VP vandlega margir studentar]
 there painted probably the house carefully many students
 'Many students probably painted the house carefully'
- b. það stingur smjorinu [VP einhver i vasann]
 there put the butter someone in the pocket
 'Somebody put the butter in the pocket'

In (11) the DO precedes the adverb marking the left-edge of VP and the *in situ* subject. [Expl-V-O-S] orders are not permitted in participial constructions.

Constructions like (11) are uncommon in Scandinavian but very common crosslinguistically. In pro-drop languages of the Romance/Greek type VOS orders are commonly attested in both synthetic and periphrastic constructions containing a participle:

- (12) Ha letto tutto bene Gianni *Italian*
 has read all well Gianni
 'Gianni has read everything well'
- (13) Va llegir el llibre en Joan *Catalan*
 read the book John
 'John read the book'
- (14) Exi diavasi to vivlio kala o Giannis *Greek*
 Has read the book well the John

In these languages, participles move out of the VP (Alexiadou 1997; Cinque 1999), i.e. the V-raising requirement on OS is met.

(II) DO-pronoun>IO-pronoun in Swedish and Norwegian

In some varieties of Norwegian and Swedish (Hellan & Platzack 1999; Anagnostopoulou, 2003, reporting judgments of Anders Holmberg, personal communication), a DO pronoun can undergo OS across in situ IO pronoun. Along with the grammatical IO-Neg-DO order in (15), the DO-Neg-IO order in (16) is also attested (more marked but possible; data from Hellan and Platzack 1999: 131-132):

- (15) a. Han visade henne inte den *IO-Neg-DO*
 b. Han visade 'na inte 'n
 He showed her not it
 'He did not show it to her'
- (16) a. Han gav den inte henne *DO-Neg-IO*
 b. Han gav 'en inte 'na
 He gave it not her
 'He did not give it to her'

Note that in non V-Raising environments the order of pronouns is strictly IO>DO:

- (17) a. Jag ville inte ge honom den
 I wanted not give him it
 'I didn't want to give it to him'
- b. *Jag ville inte ge den honom

In both Icelandic V-O-ADV-SU sequences and Norwegian/Swedish V-DOpron-Neg-IOpron sequences the V-Raising requirement is met but the prohibition against moving over a phonologically visible category is lifted.

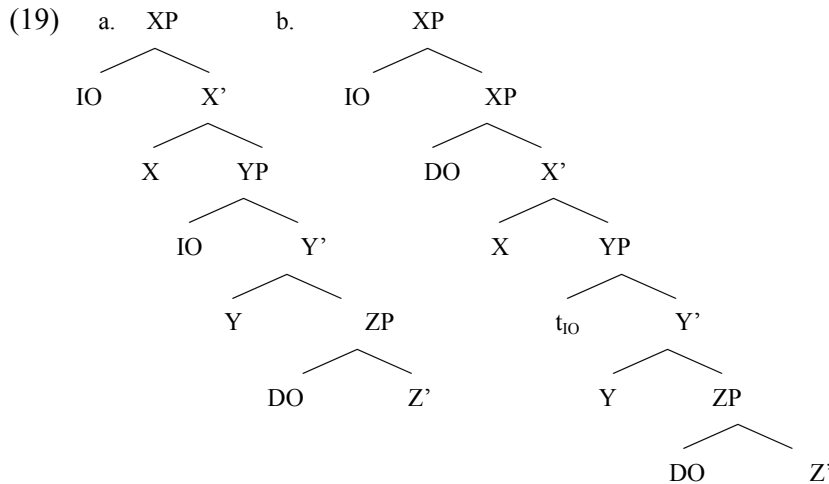
2.2. OS OF TWO OBJECTS IN SWEDISH AND NORWEGIAN

When a pronominal DO and a pronominal IO shift together in Swedish and Norwegian, both the DO>IO order and the IO>DO order are possible (Hellan & Platzack 1999: 131; Anagnostopoulou, 2003):

- (18) a. Jag gav honom den inte.
 I gave him it not
 'I didn't give it to him'
- b. Jag gav den honom inte.
 I gave it him not
 'I didn't give it to him'

The DO>IO order in (18b) is grammatical for all speakers, even for those that resist examples like (16).

The IO>DO order in (18a) conforms with Holmberg's Extended HG if multiple OS involves derivations with 'tucking in' as in Richards (1997). The IO that is closest to X (the target of OS) moves first, followed by raising of DO, which "tucks in" to a position beneath IO:



In (19a) the IO moves first, without crossing an overt non-adjunct category. In (19b) the DO only crosses the trace of IO.

There is no way to derive (18b), though, without violating Holmberg's (1999) HG:
 -If the DO moves first and the IO second (tucking in beneath the DO), DO undergoes OS across IO (in violation of Holmberg's 1999 HG).
 -If the IO moves first, the DO must be assumed to target a position above the shifted position of IO, violating Holmberg's 1999 HG.

Summary

Three environments of OS across a c-commanding non-adjunct category:

- OS of the DO across the Subject in Icelandic
- OS of a pronominal DO across a pronominal IO in Swedish and Norwegian
- Order reversing multiple OS of pronominal DO and IO in Swedish and Norwegian

The V-Raising requirement is never suspended.

3. CORRELATION I : OS AND PASSIVES WITH TWO OBJECTS

3.1. A DIFFERENT GENERALIZATION

Anagnostopoulou (2003): In Scandinavian, there is a correlation between OS of a single object and OS of two objects. When OS of a single object is strictly local, OS of two objects does not revise the relative order of objects in the VP. When the DO can undergo OS across the DO, OS of two objects can switch the order of objects in VP.

Local OS of a single object:

The DO cannot undergo OS across a higher IO in Icelandic (Collins & Thráinsson 1996) and Danish (Müller 1997):¹

- (20) a. *Ég skilaði manninum ekki bókinni* *Icelandic*
I returned the man-DAT not the book-DAT
'I did not return the book to the man'
- b. **Ég skilaði bókinni ekki manninum*
- (21) a. *Peter viste hende jo den* *Danish*
Peter showed her indeed it
'Peter indeed showed it to her'
- b. **Peter viste den jo hende*
Peter showed it indeed her

A pronominal DO cannot move across a DP-IO in Swedish and Norwegian:

- (22) a. *Jag gav Elsa inte den* *Swedish/Norwegian*
I gave Elsa not it
- b. **Jag gav den inte Elsa*
I gave it not Elsa_{IO}

Order preserving OS of two objects:

When the IO and the DO shift together, the IO must precede the DO in Icelandic and Danish:

- (23) a. *Ég skilaði manninum bókinni ekki* *Icelandic*
I returned the man-DAT the book-DAT not
'I did not return the book to the man'
- b. **Ég skilaði bókinni manninum ekki*
I returned the book-DAT the man-DAT not
'I did not return the book to the man'

¹ With a class of Icelandic ditransitives, the DO can undergo OS in the presence of an in situ DO, but with these verbs a DO>IO pre-OS order is available (Holmberg & Platzack 1995; Collins & Thráinsson 1996).

- (24) a. Peter viste hende den jo *Danish*
 Peter showed her it indeed
 ‘Peter indeed showed it to her’
 b. *Peter viste den hende jo

When a pronominal DO and a DP-IO shift together in Swedish and Norwegian, the IO must precede the IO:

- (25) a. *Jag gav den Elsa inte *Swedish/Norwegian*
 I gave it Elsa_{IO} not
 b. Jag gav Elsa den inte

Non-local OS of a single object:

As shown above, a pronominal DO can move across a pronominal IO in Swedish and Norwegian:

- (26) a. ?Han gav den inte henne
 b. Han gav ‘en inte ‘na
 He gave it not her
 ‘He did not give it to her’

Non-order preserving OS of two objects

When a pronominal DO and a pronominal IO shift together in Swedish and Norwegian, both the DO>IO order and the IO>DO order are possible (Hellan & Platzack 1999: 131; Anagnostopoulou, 2003):

- (27) a. Jag gav *honom* den inte.
 I gave him it not
 ‘I didn’t give it to him’
 b. Jag gav den *honom* inte.
 I gave it him not
 ‘I didn’t give it to him’

A correlation with passives

(I) Icelandic and Danish:

Local/order preserving OS in Icelandic and Danish correlates with the fact that these languages permit A-movement of IO and prohibit A movement of DO in passives:²

- (28) a. Jóni var skilað bókunum *Icelandic*
 Jon-DAT was returned the book-DAT
 ‘John was given back the book’

² The group of Icelandic ditransitives that permits DO>IO pre-OS orders also permits passivization of DO in the presence of an in situ DO (Holmberg & Platzack 1995).

- b. * Bókunum var skilað Jóni
The book-DAT was returned Jon-DAT
'The book was returned to John'
- (29) a. Jens blev givet bogen *Danish*
Jens was given book-the
'Jens was given the book'
- b. *Bogen blev givet Jens
Book-the was given Jens
'?*The book was given Jens'

(II) Norwegian and Swedish:

Non-local/ non order-preserving pronominal OS in Norwegian and Swedish correlates with the fact that these languages permit A-movement of DO along with A-movement of DO in passives:

- (30) a. Jon ble gitt en bok *Norwegian*
John was given a book
'John was given a book'
- b. En bok ble gitt Jon
A book was given John
'?*A book was given John'
- (31) a. Johan förärades en medalj *Swedish*
Johan was-presented a medal
'John was presented a medal'
- b. Medaljen förärades Johan
The-medal was-presented Johan
'?*The medal was presented John'

Correlation:

OS of a DO across an IO and reversal of the order of DO and IO is possible if the DO can undergo passivization across the IO

3.2. ACCOUNTING FOR THE CORRELATION

- Section 3.2.1** Assumptions
Section 3.2.2 The target of OS
Section 3.2.3 Local passives and OS. Order-preserving OS of two objects.
Section 3.2.4 Non-local passives and OS. Non order-preserving OS of two objects

3.2.1. ASSUMPTIONS

LOCALITY AND MOVEMENT

Feature-based MLC (Chomsky 1995; 2000; 2001)

Top-down locality

Attract Closest (Chomsky 1995)

- (32) α can raise to target K only if there is no legitimate operation Move β targeting K, where β is closer to K

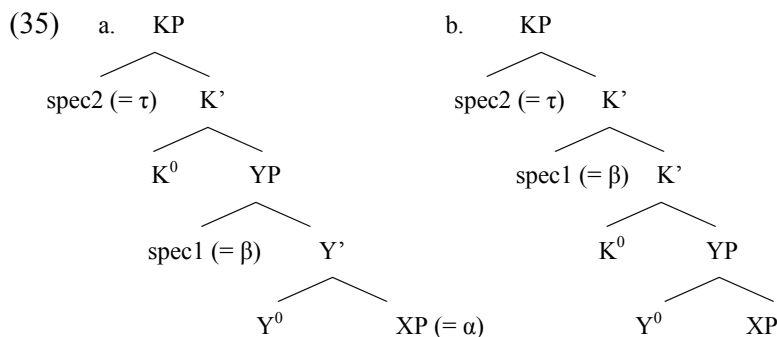
or, in the probe-goal system (Chomsky 2000):

- (33) A matching feature G is closest to probe P if there is no G' in the c-command domain D(P) of P matching P

Equidistance (Chomsky 1995)³

- (34) If β c-commands α , and τ is the target of movement, then β is closer to τ than α unless β is in the same minimal domain as (i) τ or (ii) α

According to (34), α can move across a c-commanding β to τ if either (i) α and β (instantiated by XP and spec1 in [35a]), belong to the minimal domain of the same head or (ii) β and the target (spec1 and spec2 in [35b]) belong to the minimal domain of the same head.



Multiple Movement and Tucking-in: Two arguments may move to the same head. When two arguments move to a higher head the highest argument moves first and the

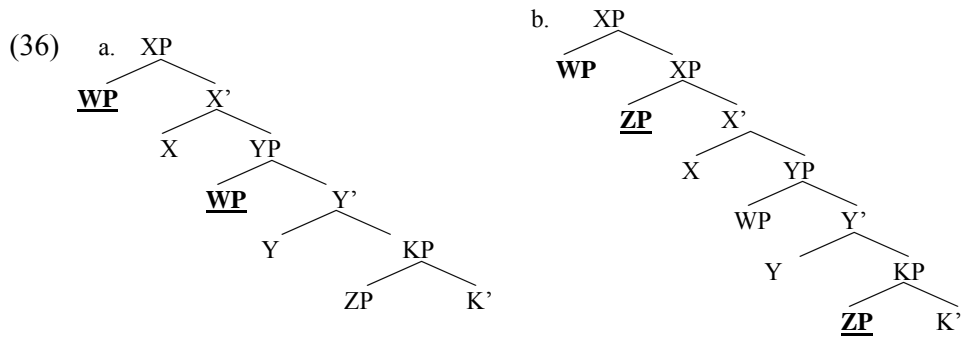
³Chomsky (2000) defines Equidistance as in (i):

(i) Terms of the same minimal domain are equidistant to probes

The minimal domain of a head H is the set of terms immediately contained in projections of H.

According to (i), movement of more than two arguments to the same head might be (incorrectly) expected to cause a defective intervention effect, depending on other assumptions. For this reason, I assume the definition in (34).

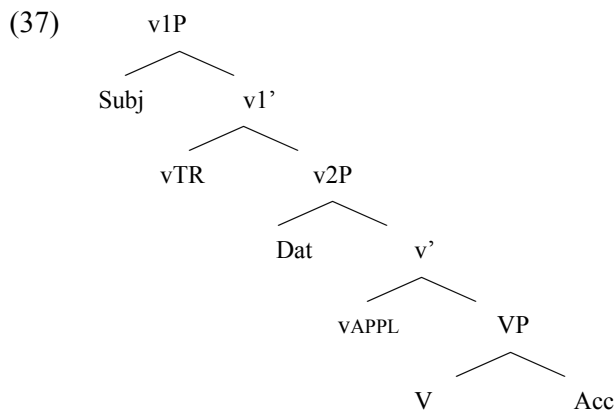
lower one moves second *tucking in* to a position beneath the first one as a result of a combination of *Attract Closest* and *Shortest Move* (Richards 1997).



DOUBLE OBJECT CONSTRUCTIONS

∇ the dativ is introduced by an applicative head (Marantz 1993, McGinnis 1998, Anagnostopoulou 1999, 2003)

∇ the external argument is introduced by a higher transitive v (Kratzer 1994, Chomsky 1995; 2000; 2001).



PASSIVES, UNACCUSATIVES

Kratzer 1994; Harley 1995; Marantz 1997; Collins 1997; Embick 1998; Alexiadou 2001; and others:

v comes in two types: one that introduces an external argument (v-TR), and one that does not (v-INTR).

Transitives vs. passives, unaccusatives: presence or absence of an external argument and the presence or absence of Case on v.

Passives vs. unaccusatives: v in passives is specified [+agentive], [-transitive], while in unaccusatives it bears the features [-agentive], [-transitive]. (The feature [-transitive] is to be understood as [-Case], [-external argument/specifier].)

For the moment, I ignore phases. I return to phases, in connection to the problem I am discussing, in sections 4, 5.

3.2.2 THE TARGET OF OS

OS targets v-TR (Chomsky 1995; Holmberg and Platzack 1995; Ura 1996; Alexiadou and Anagnostopoulou 2001; Anagnostopoulou 2003 and many others). Movement across the Subject is allowed by Equidistance (34) (both are specifiers to v-TR).

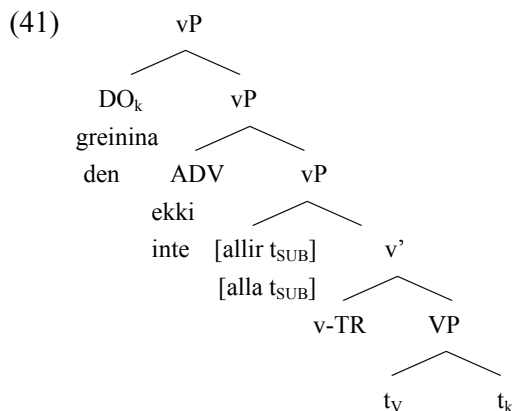
This accounts for the first counterexample to Holmberg (1999), i.e. OS across a quantificational Subject in Icelandic TECs:

- (38) a. það luðu sennilega husið [vP vandlega margir studentar]
 there painted probably the house carefully many students
 'Many students probably painted the house carefully'
 b. það stingur smjörinu [vP einhver í vasann]
 there put the butter someone in the pocket
 'Somebody put the butter in the pocket'

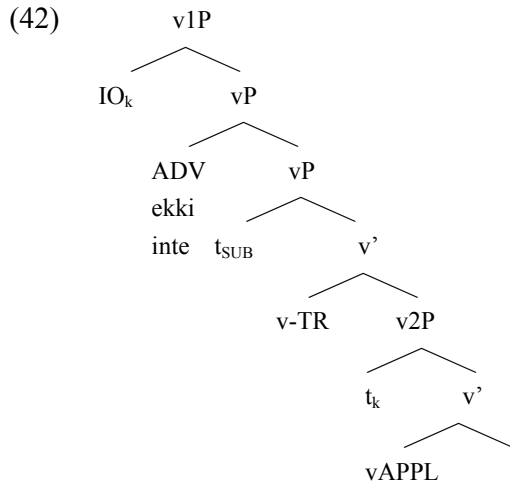
OS targets an outer specifier of v-TR, and subjects are generated in the innermost specifier of v-TR (see Holmberg and Platzack 1995; Ura 1996).

Evidence for OS to an outer specifier: floating quantifiers associated with the subject (data from Holmberg and Platzack 1995: 141; see Sportiche's theory of Q-Float):

- (39) Lásu stúdentarnir greinina ekki allir? *Icelandic*
 Read the-students the-article not all
 'Didn't the students all read the article?'
- (40) Läste studenterna den inte alla? *Swedish*
 Read the-students it not all
 'Didn't the students all read it?'

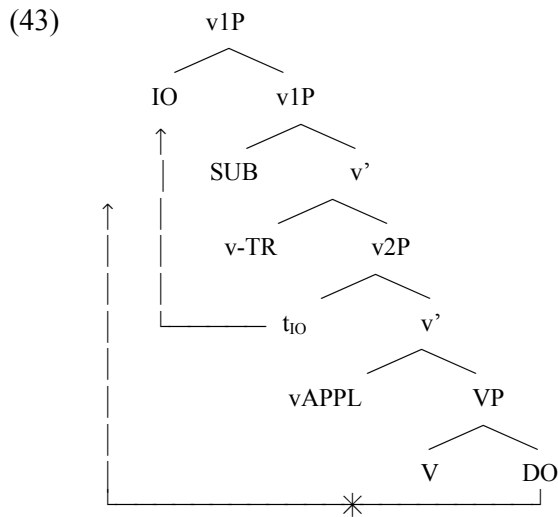


OS in ditransitives. I assume that negation and low adverbs may only adjoin to v1P and not to v2P (contra Ura 1996 and Collins and Thráinsson 1996). When an IO and/or a DO occur to the left of negation or other low adverbs, they have shifted to an outer spec of v1P:



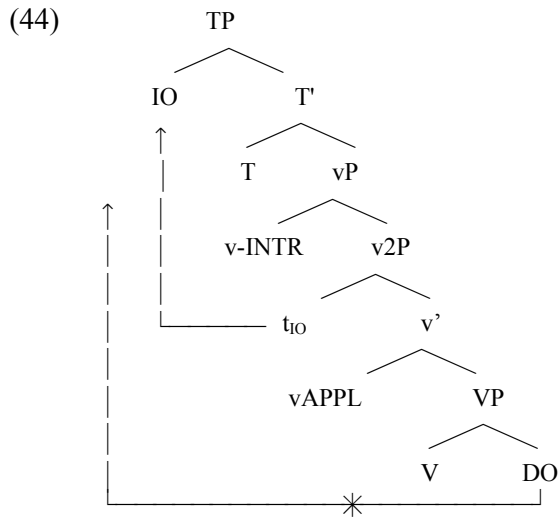
3.2.3. LOCAL OS/PASSIVIZATION. ORDER PRESERVING MULTIPLE OS.

Local OS of a single object in Danish and Icelandic (and Norwegian/Swedish IO-DP, DO-pronoun):



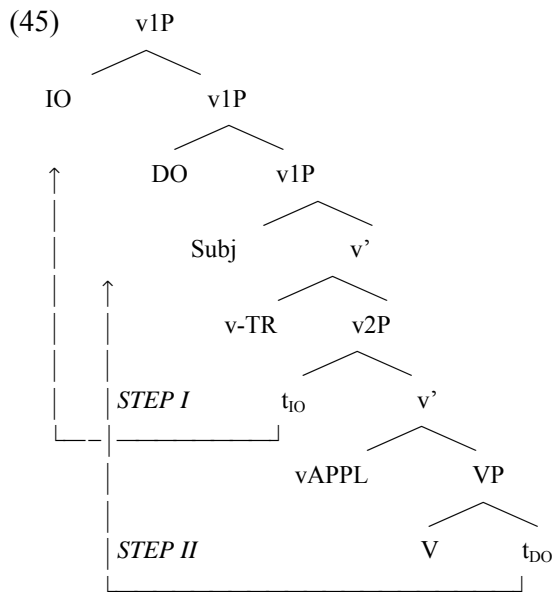
The DO cannot reach v-TR by (32)/(34).

Local passivization in Danish and Icelandic:



The DO cannot reach T by (32)/ (34).

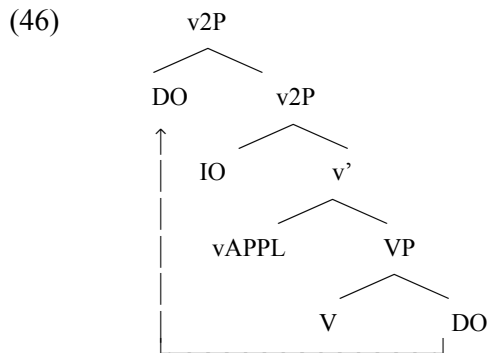
Order preserving OS of two objects in Danish and Icelandic:



See (36). [By (32)/ (34), the IO moves to v-TR first. Once the IO is in v-TR, the DO can move to v-TR as well. Movement across a trace possible. Movement to v-TR conforms with (34). IO>DO order by tucking in required by Shortest Move].

3.2.4. NON LOCAL OS/PASSIVIZATION. NON ORDER PRESERVING OS.

Non-local OS/Passivization proceeds through a specifier to v-APPL (Anagnostopoulou 2003):



From (46), the DO moves further:

- To v-TR in OS of the *DO-Neg-IO* type.
- To T in *theme-passives*.
- Non-local multiple OS involves (i) the step in (46), (ii) movement of DO to v-TR, (iii) movement of the IO to v-TR (the IO tucks in beneath the DO).

-The movement step in (46) is never spelled out.

Movement to vAPPL is parametrized. In Norwegian and Swedish vAPPL may be the target of movement. In Icelandic and Danish not.

In Norwegian and Swedish, IO-DP, DO-pronoun combinations, the derivational step (46) is prevented in OS but not in passives (unclear why).

SUMMARY:

- (a) The Conditions on Movement across higher arguments in OS form a natural class with Conditions on Movement across higher arguments in passives.
- OS of objects across subjects is straightforwardly explained from locality conditions in analyses that take v-TR to be the target of OS.
 - OS of DO across the IO is ungrammatical in Icelandic and Danish due to Attract Closest. For the same reason, the DO cannot move across the IO in passives. In multiple OS, preservation of the base IO>DO order results from tucking in due to a combination of Attract Closest and Shortest Move.
 - OS of a DO across an IO, passivization of DO across the IO, and reversal of the order of DO and IO in Swedish and Norwegian result from the spec, vAPPL parameter.
- (b) If (a) holds, then movement across a higher argument in OS does not form a natural class with the V-Raising Condition on OS.

4. CORRELATION II : OBJECT >PARTICLE, OS AND PASSIVES

Recall that OS across a particle is ruled out in Swedish, a fact which Holmberg (1999) takes to provide further evidence for the extended version of HG :

**OS across a Particle*

- (4) a. *Dom kastade mej inte ut t₀
They threw me not out
b. Dom kastade inte ut mej

Bobaljik (2002) points out that passive in a particle construction in Swedish is as bad as object shift:

- (47) *Skräpet måste bli kastat ut
Scrap the must Aux through out
'The scrap had to be thrown out'

He furthermore argues that movement of the object to a position preceding the particle feeds both (i) object shift (Holmberg 1999) and (ii) passives across Scandinavian:

In Swedish, objects are not allowed to precede particles (48a) (Svenonius 1994; 1996) and OS and passives are illformed ([4], [47]). In Norwegian, Danish and Icelandic, objects may precede particles (see Danish [48b], Norwegian [48c]), and OS and passives are well-formed ([49]):

- (48) a. Vi släpte {ut} hunden {*ut} *Swedish*
We let out the dog out
'We let the dog out'
b. Vi slap {*ud} hunden {du} *Danish*
c. Vi slap {ut} hunden {ut} *Norwegian*
- (49) a. Jeg skrev det faktisk op OS in Danish
I wrote it actually up
'I actually wrote it up'
b. Hunden blev smeded ud Passivization in Danish
Dog the Aux thrown out
'The dog was thrown out'
c. De kastet meg ikke ut OS in Norwegian
They threw me not out
'They didn't throw me out'
d. Hunden ble sluppet ut Passivization in Norwegian
Dog the Aux let out
'The dog was let out'

On the basis of these and other facts Bobaljik (2002: 240) concludes:

(50) *Bobaljik's Correlation*

An object which can only appear in the post-particle position is blocked from further A-movement (i.e., object shift and passive)

-As correctly pointed out by Holmberg (1999), the fact that intervening particles block OS cannot be accounted for in terms of the Minimal Link Condition because particles are heads.

-The same, though, applies to the blocking effect of particles in passives.

-The fact that objects must undergo movement to the *edge* of the domain headed by the particle, in order to be accessible for further movement to v-TR (in OS) or T (in passives) is reminiscent of the effects of Chomsky's (2000; 2001) *Phase-impenetrability condition*.

-If something like the PIC underlies (50), then movement to the edge of the domain of the particle is required not only for further movement to v-TR (which heads a phase) but also for further movement to T (which does not head a phase).

-This entails that interpretation/ evaluation of a phase does not take place at the next higher phase (contra Chomsky 2001 and in line with Chomsky 2000).

-An obvious question, in this context, concerns the status of wh-movement in particle constructions across Scandinavian.

5. CORRELATION III: MOVEMENT OF AN INTERVENER

5.1. A'-MOVEMENT OF AN INTERVENER IN A MOVEMENT

Recall that wh-movement of an IO permits OS of the DO:

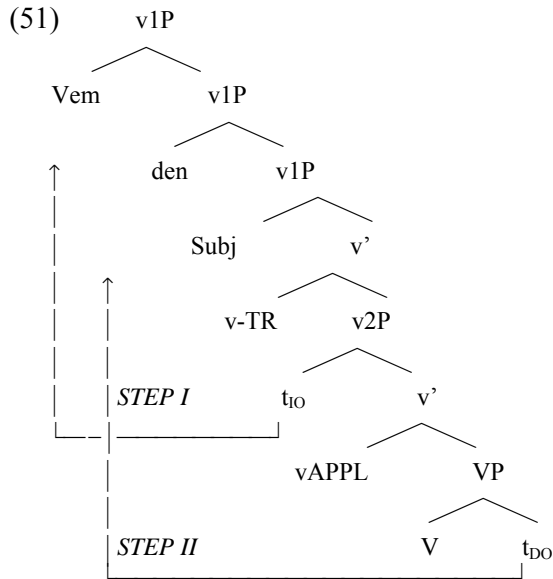
- (7) a. Vem_{IO} gav du **den**_{DO} inte t_{IO} t_{DO}?
Who gave you it not
'Who didn't you give it to?'
- b. Henne_{IO} visag jag **den**_{DO} helst inte t_{IO} t_{DO}
Her show I it rather not
'I'd rather not show it to her'

Holmberg takes this fact as evidence that:

- (i) OS is a PF operation which can apply across a trace of any type (but not across overt material) and
- (ii) OS can apply after the complete sentence is constructed, moving an object to a low position.

On Countercyclicity: if wh-movement proceeds through the edge of vP, as in Chomsky (2000, 2001), then OS does not proceed counter-cyclically.

In (7), (i) The wh IO undergoes movement to vP followed by (ii) OS of the DO, as in (51):



There are other cases where (A or A') movement of a DO across a higher IO is licensed by movement of both objects to an OS-type position (den Dikken 1995; Richards 1997; Broekhuis 2000; Anagnostopoulou 2003; see section 5.2. for an overview):

-*Scrambling* of datives in Dutch passives and non-alternating unaccusatives facilitates NP-movement of nominatives:

- (52) a. ?*dat het boek waarschijnlijk Marie
 that the book-NOM probably Mary-DAT
 gegeven wordt
 given is
- b. dat het boek Marie waarschijnlijk
 that the book-NOM Mary-DAT probably
 gegeven wordt
 given is
 'that the book is probably given to Mary'

-*Scrambling* of the indirect object in Dutch is furthermore used as an escape hatch for wh-movement of the direct object:

- (53) a. ?*Wat zal Jan waarschijnlijk Marie geven?
 What will Jan probably Mary give?
- b. Wat zal Jan Marie waarschijnlijk geven?
 What will Jan Mary probably give?

On OS as a PF rule: the wh-movement strategy illustrated in (7) is not limited to OS but characterizes A-movement. A number of cases show that A movement may proceed across a wh-trace.

Wh-movement of an experiencer facilitates raising in Icelandic (Holmberg & Hróarsdóttir (2002: 148):

- (54) a. *Hestarnir virðast mér [t vera seinir]
 the-horses-NOM seem me-DAT be slow
 'The horses seem to me to be slow'
 b. **Hverjum_k** hafa hestarnir_j virst t_k [t_j vera seinir]?
 Who-DAT have the-horses-NOM seem be slow
 'To whom seemed the horses to be slow?'

Holmberg & Hróarsdóttir (2002) argue that the subject in (54) is raised by Stylistic Fronting (Holmberg 2000) which is triggered by the EPP-feature of T and is sensitive to overt categories only, subject to locality, i.e. the raising process in (54b) is ruled out in the presence of adverbs and negation:

- (55) a. *Hverjum hefur Ólafur alltaf/ekki virst vera gáfaður?
 Who-DAT has Olaf-NOM always/not seem be intelligent?
 b. Hverjum hefur alltaf/ekki virst Ólafur vera gáfaður?
 Who-DAT has always/not seem Olaf-NOM be intelligent?
 'Who has always/not found Olaf intelligent?'

Even so, further movement of the embedded subject across a wh-trace as in (54b) feeds syntactic agreement (56b) suggesting that it is non-PF, A-movement to T (Holmberg & Hróarsdóttir 2002: 160, fn 7):

- (56) a. Það virðist/ *virðast einhverjum manni strákarir vera gáfaðir
 it-EXPL seem-SG/*seem-PL some man-DAT the boys-PL be intelligent
 'The boys seem to some man to be intelligent'
 b. Hverjum hafa strákarir virst vera gáfaðir?
 Who-DAT have-PL the boys-PL seemed be intelligent
 'To whom did the boys seem to be intelligent?'

Other cases where A' movement of an intervener has a similar effect:

(a) Topicalization of an experiencer facilitates raising in Italian (Rizzi 1986; McGinnis 1998):

- (57) a. Gianni sembra [t fare il suo dovere]
 Gianni seems to do the his duty
 'Gianni seems to do his duty'
 b. ?*Gianni sembra a Piero [t fare il suo dovere]
 Gianni seems to Piero to do the his duty
 'Gianni seems to Piero to do his duty'
 c. **A Piero_i** Gianni_j sembra t_i [t_j fare il suo dovere]
 To Piero Gianni seems to do the his duty

(b) Wh-movement of an experiencer facilitates raising in French (more controversial, see Chomsky 1995, McGinnis 1998, Boeckx 2000 for discussion):

- (58) a. Jean semble [t avoir du talent]
 Jean seems to have of talent
 'Jean seems to have talent'
- b. ?*Jean semble à Marie [t avoir du talent]
 Jean seems to Marie to have of talent
 'Jean seems to Marie to have talent'
- b. A qui_i est-ce que Jean_j semble t_i [t_j avoir du talent]?
 To whom is it that Jean seems to have of talent
 'To whom does Jean seem to have talent?'

(c) Wh-movement of IOs facilitates NP-movement of themes in Greek passives and unaccusatives (Anagnostopoulou 2003):

- (59) a. ?*To vivlio dothike tu Petru
 The book-NOM gave-NAct-3sg the Peter-GEN
 '?*The book was given Peter'
- b. ?*Afta ta vivlia aresun tu Petru poli
 These the books-NOM please-3pl the Petros-GEN much
 'Peter likes these books a lot'
- (60) a. Tinos dhothike to vivlio?
 Who-GEN gave-Nact-3sg the book-NOM?
 'Who was the book given to?'
- b. Tinos aresun ta mathimatika?
 Who-GEN appeal-3pl the mathematics-NOM
 'Who do mathematics appeal to?'

An A'-moved goal/experiencer does not block OS, Raising, Passivization. OS forms a natural class with other A-movement constructions in this respect too.

5.2. A MOVEMENT ACROSS MOVED INTERVENERS AND CYCLICITY

An overview of cases where movement of the lower argument is made possible by movement of the intervener. Types of movement strategies:

- Section 5.2.1** Scrambling
Section 5.2.2 Cliticization
Section 5.2.3 Wh-movement

5.2.1 SCRAMBLING

Unscrambled IOs in Dutch block any kind of movement of DOs across them (den Dikken 1995; Broekhuis 2000; Anagnostopoulou, 2003):

Passivization:

- (61) ?*dat het boek waarschijnlijk Marie
 that the book-NOM probably Mary-DAT
 gegeven wordt
 given is

NP-movement in unaccusatives:

- (62) a. ?*dat het boek waarschijnlijk Marie
 that the book-NOM probably Mary-DAT
 bevallen zal
 please will
 b. ??dat de teugels waarschijnlijk de jongen
 that the reins-NOM probably the boys-DAT
 ontglipten
 slipped

Wh-movement:

- (63) ?*Wat zal Jan waarschijnlijk Marie geven?
 What will Jan probably Mary give?

Scrambled IOs in Dutch permit movement of DOs across them:

DO-Passivization across scrambled IOs is well-formed:

- (64) dat het boek Marie waarschijnlijk
 that the book-NOM Mary-DAT probably
 gegeven wordt
 given is
 'that the book is probably given to Mary'

NP-movement of themes in unaccusatives across scrambled datives is well-formed:

- (65) dat het boek Marie waarschijnlijk
 that the book-NOM Mary-DAT probably
 bevallen zal
 please will
 'that the book will probably appeal to Mary'

- b. dat de teugels de jongen waarschijnlijk
 that the reins-NOM the boys-DAT probably
 ontglipten
 slipped
 ‘that the reins probably slipped out of the hands of the
 boys’

Wh-movement of themes across scrambled dative goals is well-formed:

- (66) Wat zal Jan Marie waarschijnlijk geven?
 What will Jan Mary probably give?

Analysis: NP-movement and wh-movement of the direct object in Dutch is contingent upon scrambling of both objects to the scrambling head. Scrambling itself is local and order preserving in Dutch, similarly to OS in Icelandic and Danish (data from Neeleman 1994 discussed in Müller 1997):

- (67) a. *dat Jan de foto gisteren de mannen toonde
 that Jan the picture yesterday the men showed
 b. dat Jan de mannen de foto gisteren toonde
 that Jan the men the picture yesterday showed
 c. *dat Jan de foto de mannen gisteren toonde
 that Jan the picture the men yesterday showed
 ‘that Jan showed the men the photo yesterday’

Multiple scrambling proceeds as in Icelandic and Danish multiple OS. From the scrambling position in (60), the DO is allowed to undergo further movement to a higher head because it is in the same minimal domain as the IO. It moves to T (in passives, unaccusatives) and C (in wh-questions).

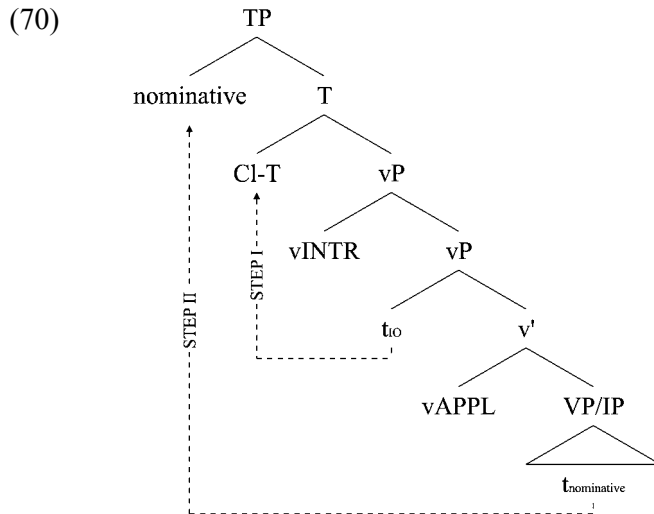
5.2.2. IO CLITICS IN NP-MOVEMENT OF DOS

Cliticization of IOs licenses A-movement. This effect of clitics is found in all Greek NP-movement constructions (Anagnostopoulou 2003), as well as in French and Italian raising (McGinnis 1998):

- (68) a. ?*To vivlio charistike tis Marias *Greek passives*
 The book-NOM award-Nact the Maria-GEN
 apo ton Petro
 from the Petros
 ‘*The book was awarded Mary by Peter’
 b. *To vivlio tis charistike*
 The book-NOM CI-GEN award-Nact
 ‘The book was awarded to her’
- (69) a. ?*Gianni sembra a Piero fare il suo dovere *Italian Raising*
 Gianni seems to Piero to do the his duty
 ‘Gianni seems to Piero to do his duty’

- b. Gianni non gli sembra fare il suo dovere
 Gianni not to him seems to do the his duty
 'Gianni doesn't seem to him to do his duty'

Analysis: Clitics undergo movement from the indirect object position to the same head targeted by the derived subject, namely T.



Lack of tucking in due to non-uniform type of movement: Head-like vs. XP.

5.2.3. WH-MOVEMENT INTERACTING WITH NP-MOVEMENT AND CYCLICITY

In all constructions reviewed so far "long" movement across a (moved or unmoved) intervener is mediated through a multiple specifier parameter. At some point in the derivation, the two arguments are in a multiple specifier configuration.

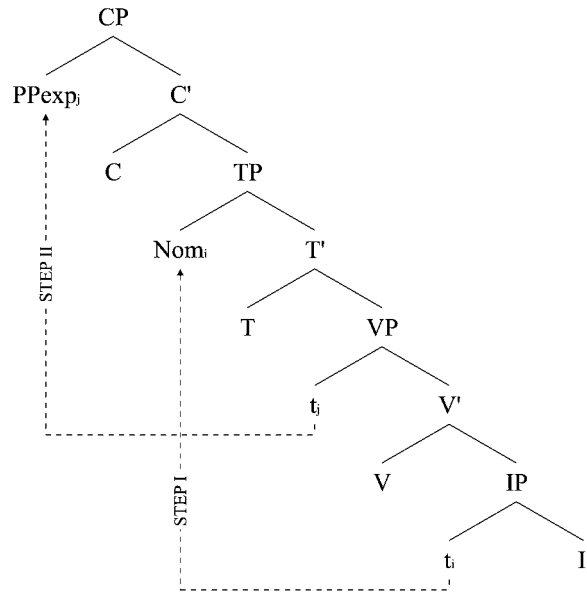
- (1) **vAPPL** in Swedish and Norwegian
- (2) **The scrambling head X** in Dutch (scrambling, NP-/ wh-movement)
- (3) **T** in passives, unaccusatives, raising across cliticized goals/ experiencers
- (4) **v-TR** in OS of DO in the presence of a wh-IO

The specific problem posed by the wh-movement strategy in raising, unaccusatives, passives (Greek, Italian, Icelandic; see section 5.1.) is that **the intervener moves to C** enabling movement of the lower argument to **T**. Under the assumption that v-INTR in (70) does not head a phase (Chomsky 2000; 2001; but see Legate 2001) nothing forces the IO-wh and the lower argument to move through the edge of v-INTR entering a multiple specifier configuration. The IO undergoes wh-movement to C and the lower DO/ Subject to T violating cyclicity.

Solutions:

- (a) McGinnis (2001): Movement of the lower subject to T followed by movement of the intervener to C. The MLC is evaluated at the CP-phase level (Chomsky 2001):

(71)



(b) Anagnostopoulou (2003): counter-cyclicity is possible when C and T are involved (see Haider's 1988 "Matching Projections"; cf. Pesetsky & Torrego 2001). Phenomena like Stylistic Inversion provide support for this (data from Déprez 1990: 48-49; see also Kayne and Pollock 1978; Collins and Branigan 1997; Watanabe 1996; Alexiadou and Anagnostopoulou 2001):

- (72) a. Je me demande quand partira Marie
I wonder when will leave Mary
'I wonder when Mary will leave'
- b. les resultants que nous donnent ces expériences
the results that us give these experiments
'the results that these experiments give us'
- (73) *Partira ton ami
Will leave your friend
'Your friend will leave'

The EPP requirement of T is suspended when C's EPP requirement is satisfied .

(c) Holmberg & Hróarsdóttir (2002): Wh-phrases are marked for deletion and are invisible for EPP-driven movement which requires overt material. Non wh-XPs can move to T across higher wh-XPs because the latter are not spelled-out (cf. Lechner, in press, for a broader analysis that can subsume this effect).

Mismatches between Move and Agree:

Wh-experiencers in Icelandic do not block Move (cf. 56b, repeated here) but block Agree when the object remains in situ (see 74):

- (56) b. Hverjum **hafa** **strákarnir** virst vera gáfaðir?
 Who-DAT **have-PL** **the boys-PL** seemed be intelligent
 'To whom did the boys seem to be intelligent?'
- (74) a. *Hvaða student veist þú að finnast t tölvurnar ljótar?
 Which student know you that find-PL the computers ugly
 b. Hvaða student veist þú að finnast t tölvurnar ljótar?
 Which student know you that find-SG the computers ugly

Unscrambled IOs in Dutch block Move but not Agree. When the Nominative remains in situ in e.g. passives the dative DP may also remain unscrambled:

- (75) dat waarschijnlijk Marie het boek
 that probably Mary-DAT the book-NOM
 gegeven wordt
 given is

6. CONCLUSION

The head-movement requirement is the only unique property of OS

OS and NP-Movement have a number of common properties that can be expressed in terms of locality conditions on A-movement

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