

Scandinavian object shift and West Germanic scrambling

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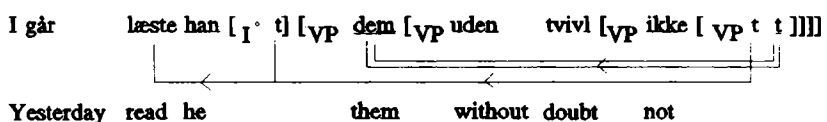
1. Introduction

This paper will discuss the differences between two types of object movement in the Germanic languages. Both are clause internal, and both are movements from right to left. One kind is found in Danish, Faroese, Icelandic, Norwegian, and Swedish (i.e. the Germanic SVO languages except English), and this (and only this) will be referred to below as “object shift”, following Holmberg (1986: 165). A different kind of leftwards object movement is the one found in Afrikaans, Dutch, Flemish, Frisian, (High) German, Swiss German, and Yiddish (i.e. the Germanic SOV languages), and this (and only this) I shall call “scrambling” in what follows.¹

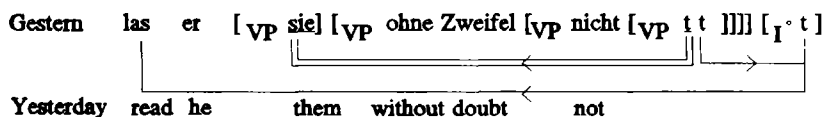
Object shift and scrambling are both adjunctions to VP (in some languages, e.g. in German, scrambling may also adjoin to IP, but not in others, e.g. in Dutch, cf. the appendix). Examples may therefore be constructed in which the two processes look identical:

(1) Object shift

Danish



Vikner, Sten: 1994, "Scandinavian Object Shift and West Germanic Scrambling" in Norbert Corver & Henk van Riemsdijk (eds.), *Studies on Scrambling*. Berlin: Mouton de Gruyter, pp. 487-517.

(2) Scrambling
German

In both of the above examples, the object has been moved out of its base position and adjoined to VP. As all the Germanic languages are V2 languages (except English, which also has neither object shift nor scrambling), and as the examples are main clauses without auxiliary verbs, the main verb has moved to C*. That the object has left the VP can therefore only be seen because it has adjoined to the left of (or on the outside of) two VP-adjoined adverbials.

2. A-movement vs. A-bar-movement

At least three different differences could ultimately be derived from the fundamental difference between A-movement and A-bar-movement. Notice, though, that these three exclude each other:

(3)

A-bar-movement	A-movement	
a. wh-movement	scrambling (& object shift)	(this section)
b. scrambling	object shift	(sections 3-7)
c. German scrambling	Dutch scrambling	(appendix)

The point of view in (3a), that Dutch and German scrambling is A-movement, and that this fact may explain the differences from wh-movement, is defended by Fanselow (1990), Moltmann (1990), Lee — Santorini (this volume), and Vanden Wyngaerd (1989), among others, and it is also mentioned in Deprez (this volume), Mahajan (1990: 56, this volume), and Webelhuth (1989: 407).

In this paper, I will mainly be discussing (and arguing in favour of) the point of view in (3b). Let me nevertheless start by pointing

out that almost all of the analyses that favour the point of view in (3a) use argumentation based on weak cross-over (among other things). The point is that scrambling does not trigger weak cross-over violations, (cf. e.g. Lee — Santorini (this volume)). Given then that wh-movement does trigger weak cross-over violations, as can be seen in the following well-known example, it is argued that scrambling and wh-movement cannot be of the same kind:

(4) English

**Who_i does [his_i mother] love t_i?*

However, as shown in Frey (1990), it is not possible to have this kind of weak cross-over violations in German at all, and so the crucial difference would seem not to be between scrambling and wh-movement but between German and English:

(5) German

a. *Wen_i mag_v [seine_i Mutter] t_i nicht t_i t_v?*
 Who-ACC likes his mother-NOM not?

b. ... *weil jeden Mann_i [seine_i Mutter] t_i mag*
 ... because every man-ACC his mother-NOM likes

c. *Jeden Mann_i mag_v [seine_i Mutter] t_i t_v*
 Every man-ACC likes his mother-NOM
 (from Frey (1990: 94-95, (6), (15a, b)))

As for the point of view in (3c), that German scrambling has A-bar-movement properties, but Dutch scrambling has properties of A-movement, this will be discussed in the appendix.

In the main part of this paper, I shall discuss the different properties of object shift and scrambling and try to argue that they may best be analysed as resulting from the difference in (3b): Object shift is A-movement, whereas scrambling is A-bar-movement:

(6)

A-bar-movement	A-movement	
a. may trigger a parasitic gap	cannot trigger parasitic gaps	(section 3)
b. landing site -case (moves XPs) (no adjacency requirement)	landing site +case (only moves NPs) (adjacency requirement)	(section 4.1.) (section 4.2.)
c. may cross a c-commanding A-element	cannot cross a c-commanding A-element	(section 5)
d. launch site +case (→ V° mvt possible but not necessary)	launch site -case (→ V° movement necessary)	(section 6)

3. Parasitic gaps

Following not only the analysis of Chomsky (1986: 56) but also e.g. the one of Chomsky (1982: 40) and many others, a parasitic gap may only occur in a construction where an A-bar-movement has taken place. Consider the following wh-movement constructions in German and Danish, where parasitic gaps are possible (*t* is the “real” gap, *e* is the parasitic gap):

(7) German

(?)*Wie viele Gäste wollte Peter [ohne PRO e*
How many guests wanted-to Peter without

kennengelernt zu haben] t einladen
met to have invite

‘How many guests did Peter want to invite without having met them.’

(8) Danish

Hvor mange gæster har Peter inviteret t uden
 How many guests has Peter invited without

at kende e på forhånd?
 to know beforehand?

In the light of this, the fact that parasitic gaps may occur in scrambling constructions (cf. e.g. Bennis — Hoekstra 1985: 65ff. or Webelhuth 1989: 355, even though Fanselow 1990: 119 seems to disagree) may be taken as an indication that scrambling is indeed an instantiation of A-bar-movement:

(9) German

(?)... *daß Peter sie [ohne PRO e kennengelernt*
 ... that Peter them without met

zu haben] t einladen wollte
 to have invite wanted-to

'That Peter wanted to invite them without having met them.'

(from Vikner — Sprouse 1988: 11, (20))

Object shift, on the other hand, does not trigger parasitic gaps (as originally noted by Holmberg (1986: 225)), indicating that object shift is not an A-bar-movement:

(10) Danish

**Peter inviterede, dem ikke t, t uden at kende*
 Peter invited them not without to know

e på forhånd
 beforehand

4. Case assignment

From the standard instantiations of A- and A-bar-movements, passive, raising and wh-movement, we know that A-movement is movement into a case-marked position, whereas A-bar-movement is

movement out of a case-marked position. This distinction forms the basis for two arguments in favour of object shift being A-movement and scrambling being A-bar-movement.

4.1. *Moving a PP*

The first argument concerns PPs. I will assume that PPs may not receive case, cf. e.g. that they are at best rather marginal in the subject position of tensed sentence. This assumption will allow us to account for why PPs may undergo scrambling, (11b), (12b), but not object shift, (13b), (14b): Object shift is movement into a case-marked position, but scrambling is not:

(11) German

- a. *Ich habe* *nicht für das Buch bezahlt*
 b. *Ich habe für das Buch nicht t bezahlt*
 I have (for the book) not (for the book) paid

(12) German

- a. *Ich habe* *nicht dafür bezahlt*
 b. *Ich habe dafür nicht t bezahlt*
 I have (there-for) not (there-for) paid

(13) Danish

- a. *Jeg betalte* *ikke t for bogen*
 b. **Jeg betalte for bogen ikke t t*
 I paid (for book-the) not (for book-the)

(14) Danish

- a. *Jeg betalte* *ikke t for den*
 b. **Jeg betalte for den ikke t t*
 I paid (for it) not (for it)

(Only base position traces are shown: *t* in (11b), (12b), (13b) and (14b) are traces of the scrambled or object-shifted object, *t* in (13a, b) and (14a, b) (and also *t_v* in (10) above) are traces of the verb, which has moved to C°.)

4.2. Adjacency requirements

The question is now what is assigning case to the position into which object shift is moving. I will suggest that this case assigner is I^0 or rather either the verb inside I^0 or a verb trace inside I^0 . This assumption is supported by the second set of case-related arguments in favour of an A/A-bar difference between object shift and scrambling.

This second argument has to do with an apparent adjacency requirement. Following Stowell (1981: 113), case-assignment under government requires the assigner and the assignee to be adjacent.²

4.2.1. Landing site between two adverbials

As stated in section 1, I take the landing sites of both scrambling and object shift to be positions adjoined to VP (or to TP or to AgrP, i.e. to whichever XP is selected by I^0), cf. that the landing site is to the immediate right of the subject. If we furthermore assume that case is assigned to this position by the verb (or the verb trace) in I^0 , and that this case assignment is subject to an adjacency requirement, then we can account for another difference between object shift and scrambling. In object shift, nothing may intervene between the object-shifted object and I^0 , whereas no such requirement holds for scrambling.

In the (a)-examples in (15)-(18), the object has been adjoined to the VP to the left of two VP-adjoined adverbials; in the (b)-examples, the object has been adjoined to the VP in between two VP-adjoined adverbials; and in the (c)-examples, no movement has taken place at all:

(15) German

Gestern *hat Peter ...*
Yesterday has Peter ...

- | | | | |
|--------------------|---------------------|-------------------------|----------------|
| a. <i>das Buch</i> | <i>ohne Zweifel</i> | <i>nicht t</i> | <i>gelesen</i> |
| b. | <i>ohne Zweifel</i> | <i>das Buch nicht t</i> | <i>gelesen</i> |
| c. | <i>ohne Zweifel</i> | <i>nicht das Buch</i> | <i>gelesen</i> |
| the book | without doubt | the book not the book | read |

(16) Icelandic

- a. *I gær las Pétur bókina eflaust*
 b. **I gær las Pétur eflaust*
 c. *I gær las Pétur eflaust*
 Yesterday read Pétur book the doubtlessly

ekki t t
bókina ekki t t
ekki t bókina
 book-the not book the

Both scrambling and object shift are optional, cf. (15c) and (16c). The crucial difference is that whereas a scrambled object may land anywhere, (15a, b), an object-shift object may not: It may adjoin to the VP only in such a way that the object ends up as the leftmost of the adjoined elements, (16a, b).

If object shift was only observed in Danish, the result would look slightly different, as it would appear that object shift is obligatory. Not only may the object not end up between two adverbials, (17b), it may not be left in its base position right of the adverbials either, (17c). I will claim that this is due to a feature which is not particular to Danish or to object shift, but to pronouns in general (for further discussion, see section 7.2 below). Cf. that also in Icelandic, pronouns may not be left in the base position, whereas full NP objects may, (18c) vs. (16c):

(17) Danish

- a. *I går læste Peter den uden tvivl ikke t t*
 b. **I går læste Peter uden tvivl den ikke t t*
 c. **I går læste Peter uden tvivl ikke t den*
 Yesterday read Peter it without doubt it not it

(18) Icelandic

- a. *I gær las Pétur hana eflaust ekki t t*
 b. **I gær las Pétur eflaust hana ekki t t*
 c. **I gær las Pétur eflaust ekki t hana*
 Yesterday read Pétur it doubtlessly it not it

Above, it was shown that either of the two movements may adjoin the object to the VP on the outside of other VP-adjoined elements, and that only scrambling may adjoin the object to the VP between two other VP-adjoined elements. One possibility has not been discussed yet, adjunction to the left of the VP on the *inside* of all other VP-adjoined elements. As this movement is string-vacuous, it cannot normally be distinguished from the complete absence of object shift/scrambling, cf. that (15c), (16c), (17c), (18c) all are ambiguous as to these two possibilities. That this movement is string-vacuous is straightforward for the scrambling cases, as the object always precedes the verb in the languages in question, but it is less obvious in the object shift cases, because the object shift languages all are SVO, and so object shift would have to move across V^0 . However, as discussed in section 5.1 below, object shift only takes place if the verb has left V^0 , and thus it will be impossible to detect whether the object precedes or follows the empty V^0 .

Nevertheless, there are environments where these two possibilities (absence of movement vs. adjunction on the inside of all other VP-adjoined elements) do not yield the same result: when the VP itself is subsequently moved. Such a construction thus allows us to see that scrambling is also possible to a position on the inside of all other VP-adjoined elements:

(19) German

a. [*t* *Das Buch zurückgegeben*] *hat er Marianne*

b. [*t* *Das Buch zurückgegeben*] *hat er*

The book back-given has he (Marianne)

nicht t

nicht Maria t

not (Maria)

(from Webelhuth — den Besten 1987: (44), (45))

However, as topicalising VPs without verbs (which are the only VPs found in object shift constructions) is impossible, (19) cannot be replicated for object shift.

The only two possible object positions in sentences where object shift is possible are thus the base position of the object and a

position adjoined to VP to the left of all other VP-adjoined elements. In other words, the object has to be adjacent either to V° or to I°, as expected if it receives case from either V° (if object shift does not apply) or I° (when object shift has applied).

4.2.2. *Floated quantifiers between two adverbials*

According to Sportiche (1988), a floated quantifier may only occur in positions in which the quantified NP may occur, or through which the quantified NP may have moved. Giusti (1990) applies this analysis to scrambling and object shift, arguing that both of these movements are included in those that may leave floating quantifiers behind.

As shown by the following examples, the possible positions of floated quantifiers are the same as the possible positions of the object: Any position is possible in scrambling, but only the leftmost VP-adjoined position and the base position are possible in object shift:

(20) German

- a. *Er wird **die Bücher** alle ohne Zweifel nicht lesen*
 b. *Er wird **die Bücher** ohne Zweifel **alle** nicht lesen*
 c. *Er wird **die Bücher** ohne Zweifel nicht lesen **alle***
 He will the books all without doubt all not read all

(21) Icelandic

- a. *Hann las **allar bækurnar** eflaust ekki*
 b. **Hann las **bækurnar** eflaust **allar** ekki*
 c. *Hann las **bækurnar** eflaust ekki **allar***
 He read all books-the doubtlessly all not all

The distribution in (21) is not directly explained by the adjacency requirement discussed in the previous subsection, as case is assigned to the NP *bækurnar* or *allar bækurnar*, which is adjacent to I° in all three cases in (21).

One account for (21b) would be that it shows that the object cannot have moved through a position between the adverbials on its way to its surface position. This fact can be tied to the case

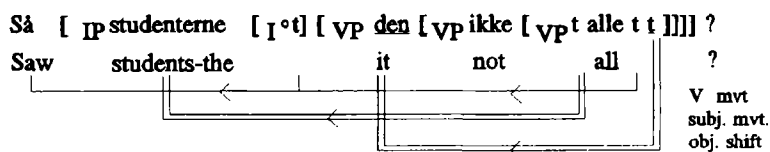
assignment properties of object shift if we make the following assumption: Adjoined positions are A-positions iff they are assigned case. The position of the quantifier in (20b)/(21b) is not assigned case (it is neither adjacent to I^0 nor to V^0), and therefore it is an A-bar-position. Now the difference between (20b) and (21b) may be accounted for: As the position of the object in (20b) is an A-bar-position, no problems are caused by the object moving there via the position between the two adverbials, which is also an A-bar-position; both parts of this movement would be A-bar-movements. The position of the object in (21b), on the other hand, is an A-position, and therefore it is not possible for the object to move there via the position between the two adverbials, which is an A-bar-position; the first step would be an A-bar-movement, but the second step an A-movement. It would thus be an instance of "improper movement", cf. e.g. Chomsky 1981: 195, 199.

5. Object shift and a VP-internal subject base position

It has often been suggested (by Kitagawa 1986, Sportiche 1988, and many others) that the subject is base-generated inside VP and moved to IP-spec by A-movement.

If this is so, we might expect it to be impossible to have both subject movement and object shift, which also is an A-movement, in the same example. Both the base-generated position of the subject and the landing site of object shift should count as subjects in terms of the Specified Subject Condition (Chomsky 1981: 153), and thus neither the trace of object shift nor the one of subject movement could be bound by its antecedent in the following example:

(22) Danish



In terms of relativised minimality (Rizzi 1990: 7, 17a), the insights of the Specified Subject Constraint are captured by the rule that no non-coindexed A-element in a specifier position may intervene in an A-movement. X intervenes in the relation between Y and the trace of Y iff X c-commands one but not the other.

The landing site of object shift thus does not intervene in subject movement, as it is not a specifier position in the present analysis, but an adjoined position (to VP).

The base-generated position of the subject might still be expected to intervene in object shift. However, Luigi Rizzi (p.c.) and Maria-Teresa Guasti (p.c.) suggest that the class of potential interveners should be further limited so as to exclude theta-marked positions.³

In this section a potential problem for the analysis of object shift as an A-movement was considered, an expected incompatibility with subject movement. I found that the actual compatibility could be explained given the relativised minimality framework and one further assumption.

6. Object shift requires the verb to move

Scrambling is generally possible, irrespective of whether the verb has moved out of the VP, as in (23), or not, as in (24):

(23) German

Gestern kaufte, Peter ...

Yesterday bought Peter ...

- | | | | | | |
|--------|-----------------|---------------------|-----------------|-----------------------|----------------------|
| a. ... | das Buch | <i>ohne Zweifel</i> | | <i>nicht t</i> | <i>t_v</i> |
| b. ... | | <i>ohne Zweifel</i> | das Buch | <i>nicht t</i> | <i>t_v</i> |
| c. ... | | <i>ohne Zweifel</i> | | <i>nicht das Buch</i> | <i>t_v</i> |
| | ... the book | without doubt | the book | not | the book |

(24) German

Gestern hat Peter ...
 Yesterday has Peter ...

- a. ... *das Buch* *ohne Zweifel* *nicht t* *gekauft*
 b. ... *ohne Zweifel* *das Buch nicht t* *gekauft*
 c. ... *ohne Zweifel* *nicht das Buch* *gekauft*
 ... the book without doubt the book not the book bought

Object shift, on the other hand, is only possible when the verb has moved out of the VP, as in the following example, where the verb has moved to C⁰:

(25) Danish

- a. **Hvorfor købte Peter ikke t den?*
 b. *Hvorfor købte Peter den ikke t t?*
 Why bought Peter it not it?

If the verb has not moved out of the VP, object shift is impossible.⁴ The following constructions, where there still is a verb inside VP are therefore incompatible with object shift. In modal constructions, the infinitive is inside VP, (26); in compound tenses, the participle is inside VP, (27); and in embedded clauses, the finite verb is inside VP, (28):

(26) Danish

- a. *Hvorfor skal Peter ikke købe den?*
 b. **Hvorfor skal Peter den ikke købe t?*
 Why shall Peter it not buy it?

(27) Danish

- a. *Hvorfor har Peter ikke købt den?*
 b. **Hvorfor har Peter den ikke købt t?*
 Why has Peter it not bought it?

(28) Danish

- a. *Det var godt at Peter ikke købte den*
 b. **Det var godt at Peter den ikke købte t*
 It was good that Peter it not bought it

That the finite verb in (28) has not moved out of VP, i.e. that there is no V^0 -to- I^0 movement in embedded clauses in Danish, can be seen from the fact that the finite verb does not (and indeed cannot) precede the negation. In Icelandic, on the other hand, the verb in finite clauses always moves to I^0 (or through I^0 to C^0), as can be seen from the fact that the finite verb does (and indeed must) precede the negation in (29) below. The other Scandinavian languages, (spoken) Faroese, Norwegian, and Swedish, are all like Danish, as they also have no V-to- I^0 movement in embedded clauses (cf. also the discussion of (37)-(39) in section 7.1 below).

As the finite verb leaves VP in embedded clauses in Icelandic (provided there are no auxiliary verbs), the right context for object shift is created:

(29) Icelandic

- a. *þa? var gott að Pétur keypti ekki bókina*
 b. *þa? var gott að Pétur keypti bókina ekki t*
 It was good that Pétur bought book-the not book the
 (adapted from Holmberg 1986: 217, 172c, d)

Why does object shift require that V^0 only contains a trace? I will assume that the verb must assign case to the NP complement that it selects, but that this assignment does not have to take place inside the VP. In theory, in a V2 construction, accusative may be assigned from any X^0 containing the verb or a trace of the verb, i.e. from V^0 , from I^0 , or from C^0 .

The last of the three possibilities, accusative from C^0 , is excluded for an independent reason, namely that C^0 assigns nominative in the V2 languages, and this makes it impossible for any other case assignment also to take place from there (that such a principle is necessary also for the analysis of Germanic expletive subject constructions is argued by Vikner (1990: section 3.1.1.1.)). Notice, however, that the relevant structures are excluded independently: An object receiving accusative case from a verb in C^0 would have to have object-shifted across the subject, and as object shift is an A-movement, and the subject an A-position, this is excluded by relativised minimality.⁵

As I^0 in V2 languages is not involved in case assignment, it is possible for the verb to assign accusative from I^0 in these languages,

provided of course that the verb itself has moved to or through I^0 , as is the case in e.g. (29) and (25). If the verb has not moved anywhere, then it must assign its case inside VP, and this is what happens in (26)-(28).

There are now two ways of formulating what is wrong with object shift in (26)-(28): It is impossible because it would leave a case-marked trace, and A-movements cannot do this. Alternatively one could say that object shift is impossible because either the object would get case twice, in (26) and (27), once from the trace of the auxiliary in I^0 and once from the main verb in V^0 , or the landing site of object shift would not be case-marked, in (28), where I^0 contains neither verb nor verb trace.

7. Object shift of pronouns vs. object shift of full NPs

In this section, I will discuss some properties of object shift that have been claimed to be evidence that object shift is X^0 -movement.

7.1. Why can only pronouns move in most Scandinavian languages?

In Icelandic, both pronouns, (30), and full NPs, (31), may undergo object shift:

(30) Icelandic

- a. *Hvers vegna lásu stúdentarnir ekki hana?*
- b. *Hvers vegna lásu stúdentarnir hana ekki t ?*
 Why read students-the it not it?

(31) Icelandic

- a. *Hvers vegna lásu stúdentarnir greinina?*
- b. *Hvers vegna lásu stúdentarnir greinina ekki t?*
 Why read students-the (article-the) not article-the?
 (adapted from Holmberg (1986: 166, (8)))

In Danish (and Norwegian and Swedish), on the other hand, only pronouns, (32), and not full NPs, (33), may undergo object-shift:

(32) Danish

- a. **Hvorfor læste studenterne ikke den ?*
 b. *Hvorfor læste studenterne den ikke t ?*
 Why read students-the it not it?

(33) Danish

- a. *Hvorfor læste studenterne ikke artiklen?*
 b. **Hvorfor læste studenterne artiklen ikke t?*
 Why read students-the article-the not article-the?

In Holmberg (1986, 1989), and also in Vikner (1989), this was taken to show that the distinctive feature was morphological case, which is found only on pronouns in Danish/Swedish/Norwegian, but on all NPs in Icelandic: Only NPs with morphological case could undergo object shift.

However, data from Faroese show that this analysis must be on the wrong track: Although all Faroese NPs have morphological case, (34), only pronouns may undergo object shift, (35) and (36):

(34)

<i>the book</i>	Icelandic	Faroese	Danish	Swedish	Norwegian
Nominative	bókin	bókin	bogen	boken	boka/boken
Accusative	bókina	bókina	bogen	boken	boka/boken
Dative	bókinni	bókini	bogen	boken	boka/boken

(35) Faroese

- a. *Jógvan keypti ikki bókina**
 b. **Jógvan keypti bókina ikki t*
 Jógvan bought book-the-ACC not book-the
 *(from Barnes, 1989: 11, 2n)

(36) Faroese

- a. **Jógvan keypti ikki hana*
 b. *Jógvan keypti hana ikki t*
 Jógvan bought it-ACC not it

Rather than morphological case-markings, the crucial feature would appear to be whether I° contains agreement, i.e. whether the

language has general V^0 -to- I^0 movement. Although the verb in all the Scandinavian languages moves through I^0 on its way to C^0 in main clauses, it is only in Icelandic that the verb can move to I^0 and stay there. This is shown by the fact that in Icelandic embedded clauses the finite verb precedes any medial adverbial, as opposed to embedded clauses in Danish and (spoken) Faroese, where the verb follows the adverbial:

(37) Icelandic

- a. *Ég skal veðja að María vill örugglega*
 b. *Ég skal veðja að María örugglega*
 I will bet that María will surely

fara í bío
vill fara í bío
 will go in cinema

(38) Danish

- a. **Jeg vil vædde på, at Maria vil gerne i biografen*
 b. *Jeg vil vædde på, at Maria gerne vil i biografen*

(39) Faroese

- a. **Eg vil vedda uppá, at Maria vil gjarna*
 b. *Eg vil vedda uppá, at Maria gjarna vil*
 I will bet on that Maria will gladly will

í biograf
í biograf
 in cinema

Assuming with Holmberg — Platzack (1990) that V^0 -to- I^0 movement is a reliable indication that I^0 contains agreement (cf. also that verbal inflection is richer in Icelandic than in the other Scandinavian languages), the question is what exactly the connection is between agreement in I^0 and full NPs being able to undergo object shift. In other words, if I^0 must contain agreement in order to be able to assign case to object-shifted full NPs, then how do object-shifted pronouns in the other Scandinavian languages receive case? I will here discuss (and reject) one possible answer to this question.

Teun Hoekstra (p.c.), Holmberg (1991: 167), and Deprez (this volume) have all suggested that pronominal object shift in Danish (and in Faroese, Norwegian, and Swedish) is head movement, i.e. that the pronominal object incorporates into the verb at some point in the derivation. Consequently, only object shift of a full NP (which only occurs in Icelandic) will require case assignment from I°. This accounts for some of the properties described above, e.g. that parasitic gaps are not triggered, that a PP cannot undergo object shift, and that there is an adjacency requirement. However, as we shall see below, the requirement that the verb must move out of the VP for object shift to be possible (cf. section 5 above) is no longer explained. Notice also that we still need to account for why object shift of a full NP in Icelandic has exactly the same properties, even though it cannot be head movement.

An incorporation analysis makes two wrong predictions: If the pronoun incorporates into the verb, it should not only move along with the verb when the verb moves from V° to I°, but also when the verb moves from I° to C° (cf. also the discussion in Vikner — Schwartz, 1991: section 4.2). The latter is quite clearly not the case:

(40) Danish

Hvorfor* [_{C°} læste **dem] *Peter* [_{I°} t] *ikke* [_{V°} t] t *alle?*
 Why read them Peter not all?

It should furthermore not be possible for the pronoun to be left behind in I° when the verb moves on to C°, cf. Kayne (1990: 258), who cites Baker (1988: 73, (76)): a trace cannot be “a proper subpart of a X° constituent”. And yet, this is precisely how an incorporation analysis would have to interpret the structure of I° in the following well-formed example:

(41) Danish

Hvorfor [_{C°} [_{I°} læste]] *Peter* [_{I°} [_{I°} t] **dem**] *ikke* [_{V°} t] t *alle?*
 Why read Peter them not all?

The pronoun has incorporated into I°, and the verb has moved through I°, and the result is that the verb trace is a proper subpart of I°.

So clearly the incorporation analysis would require a revision of Baker (1988). One such revision is offered by Roberts (1991: 214-216), who suggests the following modification: "Excorporation" is impossible only across a host-head which morphologically subcategorises for another head. Like the approach in Baker (1988), this will prevent V^0 from moving to C^0 leaving I^0 behind in cases where I^0 subcategorises for V^0 . As opposed to Baker (1988), it will however not prevent moving out an I^0 which has been adjoined-to across the adjoined element, which is exactly what happens in (41).

I shall not accept the revisions suggested by Roberts (1991), as another consequence is that we can no longer account for a classic case of cliticisation like (42), in that (42b) is no longer ruled out, whereas its ungrammaticality is accounted for by Kayne (1990) and Baker (1988):

(42) French

- a. *Où l' avait-il_i [IP t_i acheté]?*
 b. **Où avait-il_i [IP t_i l' acheté]?*
 Where it had he it bought?

So the disadvantages of accepting an incorporation analysis is that one has to revise the analysis of Baker (1988) in such a way that neither (40) nor (42b) are ruled out, whereas rejecting an incorporation analysis for Scandinavian and not revising Baker (1988) allows us to account for the ungrammaticality of both of these.

Furthermore, even if Scandinavian pronominal object shift is head movement, the pronominal object cannot move as a head all the way, as it cannot incorporate into V^0 . If it did, we would expect a situation (right before verb movement to C^0) in which tense endings would follow the compound head consisting of the verb and the incorporated pronominal object:

(43) Danish

- ... [_T [_{T'} [_{V'} [_V læs-] den] te]] ...
 ... read- it PAST ...

Here it would clearly be impossible to get the verb stem *læs-* and the temporal ending *-te* to move to C^0 , leaving behind the pronoun,

as is required by the data, cf. (41). In Roberts' system, this move would be formally excluded, as the temporal morphology would subcategorise for the verb stem, and thus nothing could move out across the temporal morphology, predicting (incorrectly, cf. (41)) that the only thing that could occur in C^0 would be all of I^0 in (43). In other words, we have to admit that the pronominal object does not incorporate until after the verb has merged with the temporal morphology.

This in turn implies that the pronoun has to take at least one step as an XP, since it must be able to move out of VP without incorporating into V^0 . If this is possible, then we no longer have an account for why it is necessary for the verb itself to move (i.e. for V^0 to be empty) in object shift cases. In other words, there is no difference in this respect between an incorporation analysis of Scandinavian object shift and cliticisation in Romance, where the object clearly does not incorporate into V^0 , cf. (42a), and thus we cannot explain why the former requires the verb to move out of VP when the latter does not.

Summing up, I have rejected that the incorporation analysis of pronominal object shift in Scandinavian is superior to the A-movement one, because whereas the A-movement analysis can account for why the verb must leave VP (otherwise the object-shifted object would not receive case) and why the object-shifted object cannot precede the subject (as an A-movement, it cannot cross IP-spec), the incorporation analysis is unable to do either.

Let me finish this section by admitting to a weakness of the present (A-movement) analysis: It is rather unexpected under this analysis that any particular properties are required of I^0 itself in order for the verb or the verb trace to be able to assign case from I^0 . This however leaves completely open the question why there seems to be a connection between the presence of agreement in I^0 and object shift of full NPs (both are found in Icelandic, and neither in any of the other Scandinavian languages).

7.2. *Why do pronouns always have to move?*

Not only may pronouns undergo object shift in Danish, they actually have to, cf. (17c), repeated below as (44c). As Icelandic pronouns

also have to object-shift, (18c) = (45c), whereas full NPs object-shift only optionally, (16c) = (46c), it seems that this is a separate requirement, as originally suggested by Holmberg (1986: 228-230):

(44) Danish

- a. *I går læste Peter den uden tvivl ikke t t*
 b. **I går læste Peter uden tvivl den ikke t t*
 c. **I går læste Peter uden tvivl ikke t den*
 Yesterday read Peter it without doubt it not it

(45) Icelandic

- a. *I gær las Pétur hana eflaust ekki t t*
 b. **I gær las Pétur eflaust hana ekki t t*
 c. **I gær las Pétur eflaust ekki t hana*
 Yesterday read Pétur it doubtlessly it not it

(46) Icelandic

- a. *I gær las Pétur bókina eflaust*
 b. **I gær las Pétur eflaust*
 c. *I gær las Pétur eflaust*
 Yesterday read Pétur book-the doubtlessly

ekki t t
bókina ekki t t
ekki t bókina
 book-the not book-the

Holmberg (1986: 231) suggests that a common motivation may underlie the obligatory nature of pronominal object shift and cliticisation in Romance, (47), namely that weak pronouns have to move out of their base position in order to form a well-formed chain.

(47) French

- a. *Pierre l' avait acheté t*
 b. **Pierre avait acheté le*
 Pierre it had bought it

Such a requirement would also account for the distribution of pronouns in particle constructions in English (and in Norwegian, where the facts are exactly parallel):

(48) English

- a. *Peter* *threw* *the carpet* *out t*
- b. *Peter* *threw* *out the carpet*
- c. *Peter* *threw* *it* *out t*
- d. **Peter* *threw* *out it*

So far, we have only considered cases where two positions were (theoretically) possible, and we have found that the base position is ruled out. As noted by Holmberg (1986: 234), we would also expect that the pronoun moves out of its base position even in cases where object shift is ruled out:

(49) Danish

- a. *Hvorfor* *har* *studenterne* *ikke [læst den] t?*
 - b. **Hvorfor* *har* *studenterne* *den ikke læst* *t?*
- Why have students-the it not read it?

Holmberg's (1986) requirement would furthermore predict that if there were more than two possibilities (as in the scrambling cases discussed in section 4.2.1 above), any of the positions which differ from the base positions would suffice. In other words, we would expect (50a, b) both to be possible, as in both cases the pronominal object has left its base position.

(50) German

- a. *Peter* *hat* *sie* *ohne Zweifel* *nicht t* *gelesen*
 - b. ??*Peter* *hat* *ohne Zweifel* *sie* *nicht t* *gelesen*
 - c. **Peter* *hat* *ohne Zweifel* *nicht sie* *gelesen*
- Peter* has them without doubt them not them read

As only (50a) is possible, it would seem that Holmberg's (1986) requirement will have to be replaced by the following entirely descriptive generalisation (or something from which it could be derived): Object pronouns have to move as far left as possible. That

this, however, is also not quite right is shown by the following example:

(51) German

- a. *Warum hat sie Peter gestern t gelesen*
- b. *Warum hat Peter sie gestern t gelesen*
- c. **Warum hat Peter gestern sie gelesen*
 Why has them Peter them yesterday them read

Holmberg (1991: 158) suggests that weak pronouns must be licensed by being adjacent to a functional category, with “adjacent” interpreted in a (non-linear) sense such that two elements are adjacent if there is no element which c-commands one of them and not the other. This will account for the data in (50) and (51): in (51a) the pronoun is adjacent to C° , in (50a) and (51b) it is “adjacent” to I° , and in (50b, c) and (51c) it is not licensed.

This licensing condition requires that in non-object shift cases like (49a) above, the verb in V° contains a functional category. Luigi Rizzi (p.c.) suggests that maybe T° or Agr-O° has moved down onto the verb inside V° . One would have to make sure that the same is not the case in the corresponding cases in German, (51c), or French, (47b), i.e. that the participle cannot license the weak pronoun in these cases, and it is not clear to me how this can be done. Nevertheless, the licensing condition of Holmberg (1991) seems to be the most promising approach to the obligatory leftwards movement of pronouns.

8. Conclusion

I have tried to argue that by assuming that object shift is an instance of A-movement and scrambling an instance of A-bar-movement, a number of differences between the processes may be accounted for. These differences include that only scrambling may trigger parasitic gaps (section 3), that only scrambling may move a PP (section 4.1.), that only scrambling may land between two VP-adjoined adverbials or leave a floated quantifier behind between two VP-adjoined adverbials (section 4.2), and that only object shift require the verb to leave VP (section 6). A potential problem was argued not to be a

problem: that object shift and subject movement may occur in the same sentence (section 5).

In section 7, data was discussed that have been claimed to argue that object shift is an instance of X^0 -movement: In 7.1 I argued that although only pronouns may move in Danish, Faroese, Norwegian, and Swedish, the A-movement analysis is still superior to the X^0 -movement one, and only the former can account for why the verb must leave VP and why the object- shifted object cannot precede the subject. In 7.2., the question was discussed why object pronouns have to move out of their base positions, and the phenomena was shown to exist in many other constructions than object shift ones.

Finally, I have to admit that there is a very basic question which I have not even addressed: Why are scrambling and object shift in complementary distribution? In other words, why do you find object shift and only object shift in the Scandinavian languages? and why do the Germanic SOV languages have scrambling and only scrambling? (though it might be possible that the scrambling languages have object shift as well)

Appendix:

Scrambling in Dutch vs. German as an A/A-bar difference

The following two differences between Dutch and German would be explained under the view in (3c): If German scrambling were A-bar-movement, and if Dutch scrambling, like Scandinavian object shift, were A-movement.

A direct object cannot object-shift across an indirect object: A-movement cannot cross an A-position (the position of the indirect object, cf. Larson 1988 and Vikner 1989) without being coindexed with it. In German, scrambling can do this, but not in Dutch:

(52) Icelandic

<i>*Pétur</i>	<i>sýndi</i>	<i>bókina</i>	<i>oft</i>	<i>Maríu</i>
Pétur	showed	book-the-ACC	often	María-DAT

(53) German

a. ... *daß Peter das Buch wirklich Maria gezeigt hat*

Dutch

- b. *... *dat Peter het boek echt Marie getoond heeft*
 ... that Peter the book really Marie shown has

Object shift cannot adjoin to IP: A-movement cannot cross an A-position (IP-spec) without being coindexed with it. In German, scrambling can adjoin to IP, but not in Dutch:

(54) Danish

- **I går læste den Peter ikke*
 Yesterday read it Peter not

(55) German

- a. ... *daß diesen Mann Peter nie früher gesehen hat*

Dutch

- b. *... *dat deze man Peter nooit voordien gezien heeft*
 ... that this man Peter never before seen has

(56) Danish

- a. **Hvorfor har den [IP Jan købt t]?*

German

- b. *Warum hat es [IP Jan t gekauft]?*

Dutch

- c. **Waarom heeft 't [IP Jan t gekocht]?*
 Why has it Jan bought?

The reason why I nevertheless do not want to propose that Dutch really has object shift rather than scrambling is that the object movement in Dutch has all the other characteristics of A-bar-movement discussed above: It may trigger parasitic gaps, it may apply to PPs, it may end between two adverbials (or leave a floating quantifier behind between two adverbials), and it does not require that the verb leave VP.

Notes

1. Thanks to audiences at the University of Düsseldorf (May 1989), at the 6th Workshop on Comparative Germanic Syntax at Lund University (June 1989), at the Workshop on Scrambling at Tilburg University (October 1990), and at the University of Geneva (February 1991). I am also grateful for judgements and other comments to Adriana Belletti, Kristín Bjarnardóttir, Cecilia Falk, Wim de Geest, Giuliana Giusti, Corinne Grange, Maria-Teresa Guasti, Liliane Haegeman, Thóra Björk Hjartardóttir, Anders Holmberg (twice), Jóhannes Gísli Jónsson, Jóannes Kjølbro, Young-Suk Lee, Anoop Mahajan, Luigi Rizzi, Ian Roberts, Ramona Römisch-Vikner, Beatrice Santorini, Manuela Schönenberger, Bonnie Schwartz, Sigga Sigurjónsdóttir, Halldór Armann Sigurðsson, Höskuldur Thráinsson, Guido Vanden Wyngaerd, and Carl Vikner.
2. Anders Holmberg points out that Icelandic objects with oblique case also undergo object shift. I take the case of an object (in a single object construction) to be oblique when it is not accusative. In (i) the object is dative, in (ii) it is genitive:

(i)

- 1c. *I gær leitaði Pétur ...*
 Yesterday looked-for Pétur ...

- a. ...*þessarar bókar* *sennilega*
 b. *... *sennilega þessarar bókar*
 c. ... *sennilega*
 ... (this book-DAT) probably (this book-DAT)

ekki t t
ekki t t
ekki t þessarar bókar
 not (this book-DAT)

(ii)

- 1c. *I gær lýsti Pétur...*
 Yesterday described Pétur...

- a. ...*þessari bók* *sennilega*
 b. *... *sennilega þessari bók*
 c. ... *sennilega*
 ... (this book-GEN) probably (this book-GEN)

ekki t t
ekki t t
ekki t þessari bók
 not (this book-GEN)

The standard view on oblique case is that it is inherent or lexical case, which is assigned together with the thematic role (cf. e.g. Marantz (1984: 81) or Andrews (1990) and references there). To analyse these facts in a way compatible both with this standard view and with the analysis that object shift is movement to a case-assigned position, I suggest that inherent case (i.e. case which is assigned at D-structure) has to be licensed at S-structure, and that this licensing takes place under conditions identical to the ones under which structural case assignment takes place. (This is parallel to the assumptions I make for assignment of partitive case in Vikner (1990: ch.3).

3. This further restriction would have no adverse consequences: It would apply vacuously to A-bar-movement and to X⁰-movement, as theta-marked positions are A-positions, and thus irrelevant to A-bar-movement and to X⁰-movement. Furthermore, apart from object shift, no other kind of A-movement ever crosses a base-generated position of a subject, as there is no subject theta-role assigned at all in passive and in raising constructions.
4. There are actually two different correlations between object shift and verb movement. One is the one discussed here, that object shift is only possible in sentences where the verb has left VP. The other correlation, which will be discussed in section 7.1 below, is that object shift of full NPs is only possible in a language which has general V⁰-to-I⁰ movement.
5. The same restriction, that only one case may be assigned from any given X⁰, would explain why there is no object shift in English, since I⁰ in English is the assigner of nominative case. However, the relevant examples are (almost) all excluded on independent grounds, since no English verb that selects an NP as complement ever leaves VP, as shown by Emonds (1978) and Pollock (1989). There is one exception from this, namely have as a main verb in the more formal variant of British English in which (ia) occurs (as opposed to American English, in which (ic) is the only possibility, or less formal British English, in which (ib) or (ic) would be preferred to (ia), according to Quirk et al., 1985: 132):

- (i) a. *We haven't any butter.*
 b. *We haven't got any butter.*
 c. *We don't have any butter.* (from Quirk et al., 1985: 131)

Even in the variant of British English which uses (ia), there is no object shift with have as a main verb, although the verb both selects an NP as a complement and leaves VP when finite:

- (ii) a. **John has it not.*
 b. **John and Peter have it both.*

The ungrammaticality of (ii) thus shows that accusative cannot be assigned from I⁰, and this can be accounted for by assuming that I⁰ already assigns nominative, and that only one case may be assigned from any X⁰.

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