
**Linearization in two ways.**

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1. **Introduction**

What the theories of Fox & Pesetsky (F&P) and Erteschik-Shir (ES) have in common is that they both account for Holmberg’s Generalization (HG) in terms of linearization. That is virtually the only thing they have in common, though, and even that is more a nominal than a substantial resemblance. For one thing, in F&P it is a matter of linearization of VP constituents as part of the narrow-syntactic derivation, in ES a matter of linearization of adverbs in relation to verb and object in a model where phonology/prosody determines word order. They can’t both be right, but they can both be wrong, which, however, we can’t be certain of until the set of hypotheses they propose have been thoroughly investigated and tested.

Below I will present some critical remarks on both theories, pointing out some possible false predictions in F&P in section 2, and one or two possible flaws in ES in section 3. In section 4 I will consider how the two theories fare with respect to properties of Object Shift (OS) which they do not themselves take up. In section 5 I will briefly consider the problem of inverted objects

2. **Holmberg’s Generalization according to Fox & Pesetsky**

F&P explain HG as the effect of a form of ‘shape conservation’. In this respect the theory belongs in the same family as Sells (2001) and Williams (2003), as they note. Like Sells
(2001), F&P account for just about all the facts relating to HG discussed in my 1999 paper with great elegance and simplicity. If we accept the premises, then almost everything seems to follow with a minimum of additional, controversial hypotheses. In the case of F&P we need to accept (a) that VP is a phase, and as such is spelled out when complete (in some sense), (b) that movement of VP-internal categories is possible after spell-out, but that the linear order established at spell-out cannot be changed by subsequent movement, and (c) that OS, unlike other well-established movements, does not move stepwise, first to the edge of VP and then on to higher positions. It follows that the object can’t ever shift across the verb or across any visible category which is in VP when VP is spelled out. Furthermore, it doesn’t matter how the verb or the other categories are moved out of VP, as long as the linear order between them is not changed.

My first reaction was that this is so good that it must somehow be right. But as is usually the case, when you scrutinize a theory in more detail various problems and false predictions come to light.

I was initially impressed by the account of the facts in connection with ‘V-topicalization’, as in (1a). F&P are probably right in redefining this operation as remnant VP-fronting. (1b) is another indication that this is right (in addition to their (30)).

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(1) a. Sett har jag honom inte (men jag har hört hans röst). (Swedish)
seen have I him not, but I have heard his voice

b. Släppt in har jag den inte (men jag har satt ut mat åt den).
let in have I it not but I have put out food for it
‘I haven’t let it in (but I have put out food for it).’
If so, the object pronoun must have moved out of the VP, violating HG construed as a generalization about movement. But then remnant VP-movement re-establishes the relative linear order of the VP, which in Swedish is släppt<in<den and the output therefore respects the linearization laws of F&P, explaining HG construed as a generalization about the output of movement.

In Holmberg 1999 I rejected the idea that (1a) is derived by Object Shift followed by remnant VP-fronting, because it seemed to wrongly predict that (2), for example, should be well-formed.

(2) *[Hört t hålla föredrag] har jag henne inte t<sub>VP</sub> (Swedish)

heard give talk have I her not

But F&P predict that (2) should not be well-formed, while (1b) should be, because only (1b) respects the linear order of the VP.

But in that case they also predict that Norwegian should contrast with Swedish with respect to (1b), since the linear order of verb, object, and particle prior to movement in Norwegian should be sluppet<den<inn.

(3) a. Jeg har ikke sluppet den inn/*sluppet inn den. (Norwegian)

I have not let it in / let in it

b. Sluppet inn har jeg den ikke.

let in have I it not

I find (1b) somewhat marginal, more so than (1a), but the contrast is not clear enough to reject (1b) while
The prediction is false. V-topicalization/Remnant VP fronting is a marginal phenomenon in Norwegian as in Swedish, but among those Norwegians who accept it, there are those who accept (3b), just as in the case of Swedes and (1b).

The application of the theory to the ‘inverse Holmberg effect’ in connection with QP-fronting is also striking. This is a phenomenon which has not received the attention in the literature which it deserves, partly because no-one has had a clear idea of how to deal with it.

(4) a. Ég hef ekkert sagt Sveini _. (Icelandic)
   I have nothing told Svein
   ‘I have told Svein nothing.’

   b. *Ég sagði ekkert Sveini _.
      I told nothing Svein

In (3a) the negative QP (NegQP) has moved out of the VP. As it precedes V, it must have moved via the VP-edge position (given F&Ps premises), thus being spelled out in pre-V position. It follows that QP-fronting cannot then be followed by V-movement to a higher position (T or C): The linear order of the VP has to be maintained.

What about (5), though?

(5) Ég sagði Sveini ekkert. (Icelandic)
   I told Svein nothing

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accepting (1a).
Here OS has moved the object across the QP, and the result is fine, even though the verb precedes the QP. F&P mention (5) in a footnote, but they do not seem to consider it a problem. As far as I can see it is a problem. QP-movement is obligatory with negative QPs; compare (4a) and (6):

(6) *Ég hef sagt Sveini ekkert. (Icelandic)
    I have told Svein nothing

Then V-movement across the QP should be impossible whether or not the indirect object undergoes movement. In fact, (7) is a problem for the same reason.

(7) Ég sá ekkert. (Icelandic)
    I saw nothing

(6) and (7) both replicate the order that the VP presumably had before anything moved – as if QP-fronting was a movement which, like OS, does not pass via the edge of VP. But in that case (4a) doesn’t come out right. I imagine that some clever manipulation of spell-out domains (say, vP or VP) may provide a solution, which, however, might then lack the simplicity and elegance of F&Ps present proposal.

F&P’s law of order preservation allows OS across any VP-external categories. This is why OS across adverbs is possible. OS across the subject is therefore also possible, in principle. This is a welcome result, since so called Long Object Shift actually occurs in at least one variety of Scandinavian. I return to this below. OS across auxiliaries is then also allowed, in principle. Provided there is a way that the main verb can move across an auxiliary,
F&P predict that an object pronoun (or in Icelandic, definite DP) should be able to move across the auxiliary, too.

Verb Topicalization/Remnant VP Fronting as in (1) is one way that a verb can move across an auxiliary. If we add another auxiliary verb, as in (8a), and then do OS and remnant VP-fronting, can the object move across the second auxiliary verb?

(8)  a. Jag kan ha sett honom (men jag vet inte vad han heter). (Swedish)
     I may have seen him (but I don’t know his name)

     b. *Sett kan jag honom ha, ...
        seen may I him have

(8b) is completely ungrammatical. However, even without OS, VP-fronting is impossible from a non-finite VP, so this is not a valid test.

     c. *Sett honom kan jag ha, ...
        seen him may I have

A more telling test case is provided by Stylistic Fronting, as found in Icelandic and Faroese. This operation can move a non-finite verb across an auxiliary, to what looks like a vacated subject position, as in (9a) (see Holmberg 2000). The movement is permitted by the laws of F&P as it affects a category at the edge of VP, therefore does not lead to reordering of VP-internal material. But now OS across the auxiliary is predicted to be possible, as it, too, would respect the linear order of the VP: another false prediction.
3. A phonological account of Object Shift and cross-Scandinavian variation

Erteschik-Shir (ES) is more ambitious than F&P as regards aims and coverage. Her aim, she says, is “to pursue an account /of OS/ which exclusively makes reference to /phonological and morphological/ primitives”. However, the paper covers not only OS and HG, but a range of other word order phenomena in the Scandinavian lanaguages, with the aim of accounting for some of the cross-Scandinavian variation as well. It is embedded in a function-oriented framework where much of the syntax is a matter of facilitating production and processing of speech.²

Unlike F&P, ES discusses other properties of OS than HG. The basic idea is that there is no object shift. Instead, the position of the object in relation to the verb and other sentential

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² I was surprised by ES’s claim, following Raviv (in prep.), that (i) unambiguously means that Peter met Sara, and is ungrammatical with Peter a topicalized object. This claim forms part of the basis for a series of rules for the identification of grammatical relations by means of the linear order of adverbs and arguments.

(i) Peter mødte Sara. (Danish)
    Peter met Sara

I will obviously not question Raviv’s or ES’s judgments of Danish, but I have no doubt that the counterpart in Swedish is ambiguous, when presented out of context. There is a novel by the Swedish author Stig Claesson from the 60ies called

(ii) Vem älskar Yngve Frej? (Swedish)
    who loves Yngve Frej

I haven’t read the novel, and I genuinely don’t know whether it means ‘Who loves Y.F.?’ or ‘Who does Y.F. love?’, even though I suspect it is the former. It could also be an intentional ambiguity on the author’s part.
categories is the effect of *prosodic incorporation* (PI) of a prosodically light object into a preceding category, usually the main verb. The illusion of object shift across adverbs in connection with verb movement, that is HG, is the effect of adverb placement: ES assumes that adverbs exist in a “third dimension” and can be linearized in a variety of positions relative to the constituent it modifies, but crucially cannot intervene between an object which wants to PI with the verb. If the verb moves, as in V2 contexts in Mainland Scandinavian, the adverb is linearized after the verb+object complex. In embedded clauses it is linearized preceding the complex, following a principle according to which an adverb always linearizes in the “earliest” position available.

There is an argument against OS as a postsyntactic operation in Holmberg (1986: 168f.) and Holmberg & Platzack (1995: 150f.): It may feed topicalization. In fact, (1a,b), analyzed as remnant VP-fronting, is evidence of this. I fail to understand what position the present paper takes on topicalization, but in some previous, recent work of hers (Erteschik-Shir 2001) she argues that topicalization is a late operation, belonging in the same module as (a version of) PI. Within that model, ordering topicalization after PI may not be seen as a problem.

I’m skeptical towards many of the claims made in the paper, but I will focus on one issue, to do with variation concerning argument placement in Mainland Scandinavian. ES believes that “the strength of /her/ approach lies in its potential to explain cross-linguistic and dialectal variation on the basis of fine morpho-phonological distinctions /.../ while maintaining a uniform syntax”. The idea that linguistic/dialectal variation is really a matter of ‘PF’, not Narrow Syntax, is interesting and definitely worth investigating in detail. The implementation of the idea in ES is somewhat halting, though.
As discussed by ES, there is variation among the Mainland Scandinavian languages concerning the position of arguments in a range of constructions, where the arguments occur more consistently further to the left in Danish than they do in Swedish and Norwegian.

(a) In the verb-particle construction the object always precedes the particle in Danish, always follows the particle in Swedish, while in Norwegian a pronominal object always precedes, while other objects precede or follow the particle.

(b) Object Shift is optional in Swedish and Norwegian, but obligatory in Danish.

(c) ‘Subject Shift’ is optional in Swedish and Norwegian, but obligatory in Danish. That is to say, the subject always precedes all sentence-medial adverbs in Danish, but not necessarily in Swedish or Norwegian; see Svenonius (2002).

The generalization is quite striking, but until now I have seen no serious attempt to formulate a parameter from which all of this variation would follow.

In the case of (b) and (c) ES describes the variation as a matter of allowing or not allowing a pronoun to PI into a V+adverb complex. In Danish this is not possible, so a pronominal argument cannot occur right-adjacent to an adverb. ES then suggests that the variation with regard to (a), (b) and (c) is due to a prosodic parameter: In Swedish the particle is always stressed in the verb-particle construction. This, according to ES, is a reflex of the verb-particle sequence in Swedish being prosodically a word-like unit into which the pronoun can PI. In Danish the verb and the particle do not form such a prosodically marked word-like unit, hence the pronoun can’t PI, and is left stranded (although why it can’t be left in that position when it is a lexical DP, either, is not clear; see footnote 3).

(10) a. Jag skrev upp det. (Swedish)

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3 This is not sufficient to account for (c), since non-pronominal subjects, too, have to precede all adverbs in Danish. In Swedish and Norwegian weak pronominal subjects strongly tend to precede any adverbs, while non-pronominal subjects need not do so. Following Raviv (in preparation) ES assumes a rule of grammatical function identification which requires a subject to precede adverbs, in Danish.
b. *Jeg skrev op det. (Danish)
   I wrote up it

ES then proposes a corresponding account of the Swedish-Danish contrast in (11): OS is optional in Swedish, obligatory in Danish.

(11) a. Jag såg inte den. (Swedish)
   b. *Jeg såg ikke den. (Danish)
   I saw not it

The crucial difference would, again, be prosodic: ES says that the verb-adverb sequence in Swedish is pronounced with stress on the adverb, which yields a prosodically word-like unit, into which the pronoun can PI. In the Danish dialect of Ærø which ES discusses there is, apparently, a correlation between stress on the adverb and optionality of OS, which is obviously suggestive. But in Swedish or Norwegian there isn’t: The stress is not on the adverb in (11a), but on the verb, in the unmarked case.

The idea that there is a prosodic parameter involved, explaining (a)-(c) is very interesting, though, and definitely worth further investigation, even if ES’s present proposal turns out to be misguided. It may be the case that verb, adverb and pronoun can form a prosodic unit of some sort in Swedish and Norwegian in a way that they cannot in Danish. If that is the case, it still needs to be determined which is the chicken and which is the egg: The prosody may be a PF-adaptation to a word order derived by entirely prosody-free but parameterized narrow-syntactic rules.

4. Other properties of Object Shift
How do the theories compare with respect to other known properties of Object Shift, discussed in Holmberg & Platzack (1995) and Holmberg (1999), for example?

The clause-boundedness of Object Shift follows in both theories. In F&P it is, presumably, a consequence of the ‘non-edge property’ of OS; the movement does not land in the edge of a phase from where it could undergo edge-to-edge movement, and thus escape from the clause. In ES it is presumably an effect of the locality of PI.

How about the observation that the shifted object can’t bind a reflexive from the derived position, unlike the moved object in a passive (see Holmberg 1999)?

(12) a. Dom ansåg honom, till hans/*sin besvikelse, vara oduglig. (Swedish)
they considered him to his/REFL disappointment, be incompetent
‘To his disappointment they considered him to be incompetent.’

b. Han ansågs, till sin/*hans besvikelse, vara oduglig.
he considered-PASS to REFL/his disappointment be incompetent
‘He was, to his disappointment, considered to be incompetent.’

It doesn’t follow in any obvious way in F&P’s theory. It does seem to follow in ES’s theory:

Since there is no object shift but only PI of the object into the verb, the object does not c-command the adverb at the relevant level of representation

Long Object Shift (LOS), typical of Swedish, is an interesting test case. LOS is discussed in ES, who rightly points out that it provides striking confirmation for the existence of constraints on syntactic operations (or representations) dictated by processing needs: LOS is possible only when the shifted pronoun has unambiguous case marking.
The pronoun *dom is ambiguous between nominative and accusative, and the object reading is quite impossible. The rules of identification of grammatical relations in ES accounts for this. On the other hand, ES can’t derive the word order in a plausible manner, as she denies the existence of object shift. The proposed solution is that the subject in the LOS construction undergoes Heavy NP Shift rightwards. This is highly implausible for several reasons, one being that the subject need not be heavy at all (ES is wrong on this point), as long as it is not a pronoun.

LOS should present no problem to F&P: Since the subject is not included in the VP at the point of spell-out (at least in Scandinavian), the theory allows free ordering of the subject and the shifted object. Crucially the shifted pronoun is still preceded by the verb. The dialectal variation (LOS possible in Swedish but impossible in Norwegian and Danish) could be a matter of a parameter which, say, allows adjunction of the shifted pronoun to TP in Swedish but not in Norwegian-Danish. The ban against ambiguous pronouns falls outside F&P’s theory, though.

5. **Inverted objects: a problem for shape conservation**

The possibility of inversion in the double object construction presents an obvious problem particularly for F&P and any theories of OS based on shape conservation. The order in (16b) has been claimed by several scholars, including me, to be allowed in Swedish and Norwegian...
alongside the expected order (16a). The contrast with (16d) indicates that the inversion is an effect of OS.

(16) a. Jag gav henne den inte. (Swedish)
     I gave her it not

b. Jag gav den henne inte.
     I gave it her not

c. att jag inte gav henne den.
     that I not gave her it

d. *att jag inte gav den henne.
     that I not gave it her

     ‘(that) I didn’t give it to her.’

ES mentions this phenomenon in a footnote, and proposes a “phonological metathesis” rule. This kind of solution is not readily available for F&P: Once the VP is spelled out, it is spelled out, so any reordering must take place in VP, prior to spell-out. F&P will be encouraged, though, by a recent investigation by Gunlög Josefsson (2003) who found that 29 out of 29 Swedish informants rejected the order (16b). This presumably licenses ignoring the inversion as an unwanted side-effect of linguistic training (this is Josefsson’s explanation). I am willing to concede that my judgments are not quite as clear as indicated in (16). In fact, (16a,b,c) are all quite marginal, a prepositional indirect object being the preferred alternative. The contrast between (16b,d) seems clear enough, though. On the assumption that the inversion is part of my I-language, a late metathesis in a derived weak pronoun cluster does not seem implausible as a source of the inversion.
References


