

Object shift and Pseudogapping in the Scandinavian languages

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This paper introduces new data from Scandinavian in the discussion of the Pseudogapping phenomenon. It will be shown that data from Icelandic in particular rule out an analysis of Pseudogapping in terms of object shift, since only prepositional phrases seem to be allowed as Pseudogapping remnants. The proposal put forward in this paper is that the Scandinavian Pseudogapping derivation builds on Heavy Noun Phrase Shift, with special phonological requirements. More specifically, it is suggested that Scandinavian Pseudogapping patterns with the shift of indirect objects in English and with topicalisation in Serbo-Croatian.

1. Introduction

In this paper I present novel data from Scandinavian, namely Pseudogapping data from Icelandic and Norwegian. I discuss the implications of the situation in Icelandic for a general analysis of Pseudogapping and show that

- (i) the Object Shift analysis proposed by Lasnik (1995, a.o.) does not explain the distribution of Pseudogapping in the Scandinavian languages, and that
- (ii) an analysis in terms of Heavy Noun Phrase Shift or Focus Movement (as in Jayaseelan 1990 and Jayaseelan 2001) seems to give a better account of the empirical examples.

However, as an analysis in terms of Heavy *Noun* Phrase Shift is not entirely adequate to account for the observation that Pseudogapping only seems to occur with prepositional remnants, I propose that the extraposition of the PP in Scandinavian is subject to a phonological constraint like Inkelas and Zec's (1995) restriction on phonologically branching phrases.

The paper is organised as follows. In section 1, I outline the basic properties of Pseudogapping, and introduce the new data from Scandinavian. Section 2 gives a brief discussion of the Object Shift analysis proposed in Lasnik (1995) with regard to English and Scandinavian Pseudogapping. In section 3, the situation in Icelandic is considered more closely. I put forward a syntactic analysis in terms of Heavy Noun Phrase Shift to account for the Icelandic data. Section 5 discusses possible counterarguments against the Heavy Noun Phrase Shift approach, and shows how an analysis in terms of phonological phrasing could work. Section 6 concludes the paper.

1.1. Pseudogapping in English

The Pseudogapping construction (in (1)) is generally considered to be an instance of VP ellipsis, combining properties of both VP ellipsis (in (2)) and Gapping (in (3)).

- (1) Mary invited John, and Abby will _ Tim.
- (2) Mary invited John, but Abby didn't.
- (3) Mary invited John, and Abby _ Tim.

Like VP ellipsis, Pseudogapping has a finite auxiliary (*will*), and, like Gapping, a contrastive remnant (*Tim*). This *remnant* can take different forms: with verbs taking only one object, it can either be a direct object (as in (1) and (4)), or a prepositional object (as in (5)).¹

- (4) Abby plays the piano better than her father does _ the violin.
- (5) John gave more books to Susan than Tony did _ to Sarah.

Until now, the Pseudogapping construction is only attested for English (and, perhaps, Korean, cf. fn. 2).² It occurs most often in spoken language (according to Levin 1986), and is found most commonly in comparative constructions, as in (4) to (6).

- (6) Mary invited John more often than Abby did _ Tim.

Since Lasnik's (1995, 1999) work on Pseudogapping, it has been assumed that the Pseudogapping derivation employs a movement operation called object shift. Hence, if object shift in English is taken to be modelled on its counterpart in Scandinavian, we might expect Scandinavian to possess a Pseudogapping-like construction.

Instances of Pseudogapping can indeed be found in the Scandinavian languages, as a preliminary survey has shown.³ Whilst Swedish does not allow Pseudogapping, Icelandic as well as two Mainland Scandinavian languages, namely Norwegian and Danish, does have a construction that is equivalent to English Pseudogapping.

The examples in (7) and (8) below illustrate Pseudogapping in Norwegian, and (9) and (10) show the Icelandic counterparts (with ' _ ' indicating deleted material).⁴

¹ For verbs selecting more than one object (e.g. *give*) in the Scandinavian languages, the distinction between 'direct' and 'indirect' object will also play a role, which is neglected here.

² Kim (1997) provides a discussion of Korean Pseudogapping. However, the Korean Pseudogapping construction, as he describes it himself, patterns rather with English *VP ellipsis* in having an auxiliary and only a *single* remnant (either subject or object). Hence, pending further evidence to the contrary, I suggest that Korean Pseudogapping is a different phenomenon from English and Scandinavian Pseudogapping.

³ The Norwegian examples were provided by Jorunn Hetland (p.c.); the Icelandic data goes back to Gunnar Hrafn Hrafnbjargarson (p.c.). Further data that support the empirical judgements above, but are not listed here, were provided by Arne Martinus Lindstad (Norwegian, p.c.), Øystein Nilsen (Norwegian, p.c.), and Torgrim Solstad, Catherine Fabricius-Hansen (Danish, p.c.) and Maria Melchior (Danish, p.c.), Anders Holmberg (Swedish, p.c.) and Ida Larsson (Swedish, p.c.), and Kjartan Ottósson (Icelandic, p.c.), and Nicole Déhé (Icelandic data on the double object construction).

⁴ I have omitted the Danish examples here for ease of exposition, since they seem to follow the Norwegian pattern in all relevant respects.

(7) Prepositional Complements (*Norwegian*):

- a. Peter kan vente lenger på Mari enn Paul kan _ på Kari.
Peter can wait longer for Mari than Paul can _ for Kari.
'Peter can wait longer for Mari than Paul can for Kari.'
- b. Peter vil vente lenger på Mari enn Paul vil _ på Kari.
Peter will wait longer for Mari than Paul will for Kari.
Peter will wait longer for Mari than Paul will for Kari.'
- c. Peter skal lese flere bøker for Mari enn Paul skal _ for Kari.
Peter shall read more books for Mari than Paul shall _ for Kari.
'Peter shall read more books for Mari than Paul shall for Kari.'
- d. Per har lest flere bøker for Kari enn Paul har _ for Mari.
Per has read more books for Kari than Paul has _ for Mari.
'Per has read more books for Kari than Paul has for Mari.'
- e. Per vil leke lenger med Mari enn Paul vil _ med Kari.
Per will(wants to) play longer with Mari than Paul will _ with Kari.
'Per will play longer with Mari than Paul will with Kari.'

(8) Dative Construction (*Norwegian*):

- a. *Mary vil gi Susan mange penger og Paul [vil _ Jane en bok].
Mary will give Susan much money and Paul will _ Jane a book.
'Mary will give Susan much money, and Paul will Jane a book.'
- b. *Mary vil gi mange penger til Susan og Paul [vil _ en bok til Jane].
Mary will give much money to Susan and Paul will _ a book to Jane.
'Mary will give much money to Susan, and Paul will a book to Jane.'
- c. Mary vil gi mange penger til Susan og Paul vil _ til Jane.
Mary will give much money to Susan and Paul will to Jane.
'Mary will give much money to Susan, and Paul will to Jane.'⁵
- d. Mari vil gi flere bøker til Siri enn Pål vil _ til Kari.
Mary will give more books to Siri than Paul will to Kari.
'Mary will give more books to Siri than Paul will to Kari.'
- e. *Mari vil gi Siri flere bøker enn Pål vil _ Kari.
Mary will give Siri more books than Paul will Kari.
'Mary will give Siri more books than Paul will Kari.'

⁵ (8c) is in sharp contrast to its counterparts with a single direct or indirect remnant, which were rated unacceptable. This also holds in the case of the usually more accepted comparative, cf. (8e) and (8f).

- f. *Mari vil gi Siri fleire bækur enn Páll vil _ CDer.
 Mary will give Siri more books than Paul will CDs.
 ‘Mary will give Siri more books than Paul will CDs.’

(9) Prepositional Complements (*Icelandic*):

- a. Pétur hefur lesið fleiri bækur fyrir Kara-ACC en Páll hefur _ fyrir María-ACC.
 Peter has read more books for Kari than Paul has for Maria.
 ‘Peter has read more books for Kari than Paul has for Maria.’
- b. (?)Pétur vill biða lengur eftir María en Páll vill _ eftir Jóni.
 Peter will(wants-to) wait longer after Maria than Paul wants after Jóni.
 ‘Peter will wait longer for Maria than Paul will for John.’
- c. Pétur vill leika lengur við Maríu en Páll vill _ við Jóni.
 Peter wants-to play longer with Maria than Paul wants-to with John.
 ‘Peter wants to play longer with Maria than Paul wants with John.’

(10) Dative Construction (*Icelandic*):

- a. María myndi skila fleiri bókum til Péturs en Páll myndi _ til Jóns.
 Maria will return more books to Peter than Paul will to John.
 ‘Maria will return more books to Peter than Paul will to John.’
- b. ??María myndi skila fleiri bókum til Péturs en Páll myndi blöðum _ til Jóns.⁶
 Maria will return more books to Peter than Paul will newspapers to John.
 ‘Maria will return more books to Peter than Paul will newspapers to John.’
- c. **María myndi gefa Pétri fleiri bækur en Páll myndi _ blöð.
 Mary will give Peter more books than Paul will newspapers.
 ‘Mary will give Peter more books than Paul will newspapers.’
- d. ??María myndi gefa Pétri fleiri bækur en Páll myndi _ Jóni.
 Mary will give Peter more books than Paul will John.
 ‘Mary will give Peter more books than Paul will John.’

The Scandinavian data seem to obey the generalisation in (11).

(11) *Pseudogapping Remnant Generalisation*:

Scandinavian Pseudogapping only has prepositional remnants, i.e. prepositional phrases or a prepositional dative.

⁶ Presumably, the difference in acceptability is due to the double remnant. A reviewer points out that the (British) English counterparts of (8a), (8b), and (10b) are also unacceptable, at least for some speakers.

In contrast to Scandinavian (both Icelandic and Mainland Scandinavian), English permits a variety of remnants in Pseudogapping: direct objects (DO), indirect objects (IO), and prepositional complements (PP), as in (12). Interestingly, Levin (1986) pointed out that prepositional remnants are preferred and are considered more acceptable than non-prepositional remnants.

(12) Although John wouldn't give the book to Bill, he would _ to Susan.⁷

This difference in the restrictiveness of possible remnants between the two groups of languages, as well as the common factor of preferring Pseudogapping with prepositional phrases (up to the exclusion of other remnants), should be accounted for.

The next section considers the predominant Pseudogapping analysis, the object shift analysis put forward by Lasnik (1995, 1999), and shows that especially under the point of view of explaining the distributional differences, the object shift analysis does not reply sufficiently to this question.

2. The object shift analysis

In recent years Pseudogapping has generally been considered to be a special instance of VP ellipsis and has been analysed accordingly. The common denominator of this approach is the assumption that the full VP is deleted, where the deletion process takes place after the Pseudogapping remnant has moved out of the VP. According to the analysis proposed by Lasnik (Lasnik 1995, 1999), in non-elliptical sentences in English, the verb raises in general, but in Pseudogapping, it stays *in situ* and is subsequently deleted with the VP.⁸

Lasnik's *object shift* analysis is sketched in (13):

(13) John invited Sarah, and Mary will [_{AgrOP} Jane_i] [_{VP} invite ~~t_i~~].



In Lasnik's analysis the object is moved to the specifier position of the an Agr_O phrase. This movement is triggered by an EPP-*feature* for objects (Lasnik 1995,1999).⁹

2.1. English object shift vs. Scandinavian object shift

English object shift (as conceived by e.g. Johnson 1991 and Lasnik 1995, 1999), although modelled on the Scandinavian counterpart, differs from object shift in the Scandinavian languages in various ways. In this section, I focus on two specific properties by which the two

⁷ Example taken from Takahashi 2003 (Handout, p.7).

⁸ Whilst for English, neither generalised verb movement nor the lack of verb movement in the Pseudogapping case were standard assumptions then, in the current theoretical framework it is only the lack of verb movement to *v* in Pseudogapping that is unexpected.

⁹ Other analyses also assume movement, which is implemented in a different fashion: either as rightward or leftward movement, e.g. *Heavy Noun Phrase Shift* (HNPS; Jayaseelan 1990), *focus movement* (Jayaseelan 2001) or *Dutch Scrambling* (Johnson 1997). Takahashi (2004) proposes a combination of HNPS and *Object Shift*.

types of object shift can be distinguished, since these two properties play a crucial role in the analysis of Pseudogapping.¹⁰

The first obvious difference between object shift of the English type and object shift of the Scandinavian type concerns the restrictions on the object undergoing object shift. While English object shift can target both direct objects and indirect objects (the distinction, in fact, often being obsolete due to the lack of overt case marking), as well as prepositional objects, and treats pronouns and full DPs alike, the Scandinavian languages show a more differentiated picture. The Mainland Scandinavian languages (Norwegian, Swedish, and Danish) differ from Insular Scandinavian (Icelandic, and, to some extent, Faroese) in that the first group allows pronouns to be shifted, but not full DPs. In Icelandic, on the other hand, both pronouns and full DPs can undergo object shift. In addition to this distinction between pronouns and full phrases, the Scandinavian object shift operation does not target prepositional objects.

The second difference between English and Scandinavian object shift that is of interest with respect to the Pseudogapping construction is a restriction with regard to the presence of an auxiliary verb in the sentence where an object should be shifted. Whereas English allows the object shift operation irrespective of the presence or absence of auxiliaries, in all Scandinavian languages, once an auxiliary is present in the sentence, object shift is blocked.

Since Pseudogapping occurs in both English and the Scandinavian languages, as shown above, the question arises which of the two types of object shift can account for the Scandinavian Pseudogapping examples. I will examine each of these object shift operations in turn.

2.2. *Analysing Scandinavian Pseudogapping with English object shift*

Given that the English object shift analysis accounts for the facts in English Pseudogapping, it would seem reasonable to extend it to Scandinavian Pseudogapping as well. An analysis in these terms would yield a cross-linguistically uniform analysis of Pseudogapping.

However, this extension is not without problems. A very preliminary and general argument against an analysis of Scandinavian Pseudogapping in terms of English object shift is the fact that the assumption of an object shift operation in English is not entirely uncontroversial. In the ‘standard’ analysis of English, object shift is not considered to be part of the English grammar. Following work on particle constructions (Johnson 1991), ECM constructions, and Pseudogapping (Lasnik 1995 and subsequent work), however, object shift has been introduced in the analysis of English (cf. also Chomsky 2001), though often conceived to be restricted to Pseudogapping (Fox & Pesetsky 2004, Takahashi 2004). Thus, given that the status of this operation is still under much debate, it seems desirable to make sure that all other possible analyses of Scandinavian Pseudogapping should be ruled out first.

A second concern with respect to Lasnik’s object shift analysis of Pseudogapping is the observation that Pseudogapping actually seems to differ from other cases where object shift is assumed in English, i.e. the ECM and particle shift cases. Pseudogapping, unlike the other two, displays a special prosodic structure (cf. Gengel 2006, a.o.) where the remnant seems to be contrastively focused. Although this property might be due to the ellipsis operation as such, it should nevertheless be accounted for. A uniform account of all three phenomena,

¹⁰ The arguments in this section draw from general arguments made in the literature (e.g. Johnson 1997, a.o.).

ECM structures, particle constructions, and Pseudogapping, does not predict these differences (see Gengel 2006 for an alternative approach).

The third and most important point left open in an analysis in terms of English object shift analysis, is the observation that Scandinavian Pseudogapping only permits prepositional phrases as remnants. This empirical circumstance is hard to explain under the Lasnik-style analysis outlined above, which does not distinguish between different types of objects. Hence, this analysis would vastly overgenerate in the case of Scandinavian Pseudogapping and could not exclude ungrammatical examples, unless a specific restriction that only holds for the Scandinavian languages is also called in.

These arguments, especially the last one, allow the conclusion that an analysis of Scandinavian Pseudogapping in terms of English object shift seems rather unlikely, if not impossible. The only advantage of the English object shift operation seems to be the insensitivity to the presence of auxiliaries, which is problematic for an analysis of Scandinavian Pseudogapping with Scandinavian object shift, as we will see in what follows.

2.3. Analysing Scandinavian Pseudogapping with Scandinavian object shift

The second obvious possibility of analysing Scandinavian Pseudogapping in terms of object shift is to make use of the object shift operation that is already available in the Scandinavian languages, i.e. Scandinavian object shift, illustrated in (14) with the double object construction in Icelandic. As is well-known, in Icelandic both weak pronouns and full DPs can be shifted: in (14), the indirect (dative) object (IO) has moved from its base position, in (14), both indirect and direct object are shifted. (14) shows that a direct object cannot be moved past an indirect object (but it can be shifted on its own, as illustrated in (15)).

- (14) a. *Ég skilaði ekki mannum bókinni.*
 I returned not man-the-DAT book-the-DAT
 b. *Ég skilaði mannum_i ekki t_i bókinni.*
 I returned man-the-DAT not book-the-DAT
 c. *Ég skilaði mannum_i bókinni_j ekki t_i t_j*
 I returned the-man-DAT book-the-DAT not
 d. **Ég skilaði bókinni_j ekki mannum t_j.*
 I returned book-the-DAT not man-the-DAT
 ‘I didn’t return the book to the man.’
 (Thráinsson 2001:168)

- (15) a. *Jón las ekki bókina.*
 John read not book-the-ACC
 b. *Jón las bókina_i ekki t_i.*
 John read book-the-ACC not
 ‘John didn’t read the book.’
 (Thráinsson 2001:164)

Unfortunately, an account of Pseudogapping in terms of Scandinavian object shift is not without problems either.

Firstly, as shown above, Pseudogapping in the Scandinavian languages only seems to occur with prepositional phrases as remnants (either a prepositional dative or various types of prepositional complements). As these PPs are full phrases (i.e. not pronouns) in all the Scandinavian languages that show Pseudogapping - Norwegian/Danish and Icelandic -, it is surprising that Norwegian and Danish should have Pseudogapping at all, since in Mainland Scandinavian, only weak pronouns can be shifted, never full DPs.¹¹¹²

This observation actually gives rise to a second problematic fact for an analysis of Scandinavian Pseudogapping in terms of Scandinavian object shift, since Icelandic - which has object shift of full DPs - does not allow object shift of prepositional phrases, as shown by the ungrammatical example in

- (16) *Jón talaði [_{PP} við Maríu]_i ekki t_i.
 John spoke with Mary not
 ‘John didn’t speak to Mary.’
 (Thráinsson 2001:151)

Following the generalisation above, however, Icelandic Pseudogapping is restricted to prepositional remnants. Hence, the Pseudogapping configuration in Icelandic could not possibly be derived via the ‘usual’ object shift operation.

The picture becomes even more complicated because other objects that are able to undergo object shift are not found in Pseudogapping, contrary to the expectations generated by the English examples.

But the Scandinavian object shift movement account is not only problematic with respect to the remnants that it can target, as opposed to the remnants that can empirically be found in Pseudogapping. The behaviour of verbs and auxiliaries also plays an important role with respect to the restrictions on Scandinavian object shift. Firstly, depending on which version of Holmberg’s Generalisation is adopted, the verb has to raise from its base position to a higher position in the clause, otherwise object shift is illicit. This poses a superficial problem for the Pseudogapping analysis, if we follow Lasnik (1995, 1999) in assuming that the verb does not raise in Pseudogapping. However, this problem does not persist, since the verb is deleted, i.e. no longer phonologically realised (cf. e.g. Anagnostopoulou 2004 for related discussion on phonologically null elements in object shift). Secondly, the only instance in which object shift is blocked in the Scandinavian languages is in the case of an overt element in T. Hence, an auxiliary always blocks the verb movement necessary for object shift – by definition, however, Pseudogapping always displays an overt auxiliary.

The question to be asked then, is then the following: If object shift is not a possible mechanism for the derivation of Pseudogapping in the Scandinavian languages, are there alternatives?

To answer this question, we will look at the situation in Icelandic in the next section.

¹¹ Preliminary tests seem to indicate that in Norwegian, Pseudogapping with pronominal remnants is actually ruled out.

¹² Elena Anagnostopoulou (p.c.) points out that there are Mainland Scandinavian dialects where object shift of full phrases is allowed.

3. Pseudogapping in Icelandic

In the previous section, we saw that object shift in either variant, the Scandinavian or the ‘English’ type, cannot give an appropriate account of the Scandinavian Pseudogapping examples. Hence, other movement options need to be explored. In this section, I will take Icelandic as a case study before I go on to show in section 4 that, on the basis of these data, a possible alternative to the object shift approach is an analysis in terms of Heavy Noun Phrase Shift (as in e.g. Jayaseelan 1990, Takahashi 2004), with some modifications.

The first striking point to note about Pseudogapping in Icelandic is that there seems to be a verb class specific difference. Whereas verbs that belong to the *gefa* class (‘give’) of verbs (classification according to Holmberg & Platzack 1995) don’t seem to allow Pseudogapping, verbs of the *skila/ræna* class (return/rob) (classification according to Holmberg & Platzack 1995) show Pseudogapping, as in (17).

- (17) *María myndi skila fleiri bókum til Péturs en Páll myndi til Jóns.*
 Maria will return more books to Peter than Paul will to John.
 ‘Maria will return more books to Peter than Paul will to John.’

As we examine the two verb classes in question, we will see that the occurrence of Pseudogapping is closely linked to the respective verb classes allowing the *to*-construction at all or not.

3.1. Pseudogapping in the *gefa* verb class

The table below shows the main verbs of the *gefa* verb class (as classified by Holmberg & Platzack 1995). The two important verbs for our purposes here are *gefa* (‘to give’) and *senda* (‘to send’).

Verb	Meaning	Case of the IO	Case of the DO
<i>gefa</i>	<i>give</i>	<i>DAT</i>	<i>ACC</i>
<i>segja</i>	say (tell)	DAT	ACC
<i>senda</i>	<i>send</i>	<i>DAT</i>	<i>ACC</i>
<i>synja</i>	show	DAT	ACC

Two examples for the object distribution (i.e. accusative following dative) are given in (18) and (19) (examples taken from Holmberg & Platzack 1995:187).

- (18) *Jón gaf Ólafi bókina.*
 Jon gave Olaf-DAT a-book-ACC
 ‘John gave Olaf a book.’
- (19) *Hún sagði þeim sögu.*
 She told them-DAT a-story-ACC
 ‘She told them a story.’

Most ditransitive verbs in Mainland Scandinavian (and in English) show either the order DP > DP or DP > PP (i.e. either the double-object construction (DOC) or the *to*-construction).

In Icelandic, however, the *to*-construction is *not* permitted in the *gefa* verb class, as (20) and (21) show for the verb *gefa* ('to give'), and (22) and (23) for the verb *synja* ('to show') (all examples taken from Holmberg & Platzack 1995:188).

- (20) Ég gaf Jóni bókina.
I gave John-DAT a-book-ACC.
'I gave John a book.'
- (21) *Ég gaf bókina til Jóns.
I gave a-book-ACC to John.
'I gave a book to John.'
- (22) Hún sýndi mér málverk sín.
She showed me pictures her
'She showed me her pictures.'
- (23) *Hún sýndi málverk sín fyrir mig/til mín.
She showed pictures her for me /to me.
'She showed her pictures to me.'

The sentence in (23) also shows that other prepositions that would be plausible in the context in Icelandic are also ruled out.

In order to place indirect objects in sentence-final position, the *gefa* verb class can change the order of the objects from indirect object preceding direct object (IO > DO) to direct object preceding indirect object (DO > IO), thus employing *inversion* instead of a preposition.

The examples in (24) and (25) (taken from Collins/Thráinsson 1993:150) illustrate the two possible word orders.

- (24) Hann gaf konunginum ambáttina.
He gave the-king-DAT the-maidservant-ACC.
'He gave the king the maidservant.'
- (25) Hann gaf ambáttina konunginum.
He gave the-maidservant-ACC the-king-DAT
'He gave the maidservant to the king.'

Pseudogapping, as said above, does not occur in the *gefa* class ((26) - (28)).¹³

- (26) *María myndi gefa Pétri fleiri bækur en Páll myndi Jóni blöð.
Mary will give Peter more books than Paul will Joni newspapers.
'Mary will give Peter more books than Paul will John newspapers.'

¹³ (28) is attested marginally acceptable only by one speaker (as is (31)).

- (27) **María myndi gefa Pétri fleiri bækur en Páll myndi blöð.
 Mary will give Peter more books than Paul will newspapers.
 ‘Mary will give Peter more books than Paul will newspapers.’
- (28) ??María myndi gefa Pétri fleiri bækur en Páll myndi Jóni.
 Mary will give Peter more books than Paul will John.
 ‘Mary will give Peter more books than Paul will John.’

Clearly, the absence of Pseudogapping in the *gefa* class does not yet point to a correlation between the occurrence of Pseudogapping and the general possibility of the *to*-construction. The Pseudogapping pattern with the verb *senda* looks very similar to the pattern above with *gefa* at first, as shown in (29) to (31).

- (29) *María myndi senda Pétri fleiri bækur en Páll myndi Jóni blöð.
 Mary will send Peter more books than Paul will John newspapers.
 ‘Mary will send Peter more books than Paul will John newspapers.’
- (30) **María myndi senda Pétri fleiri bækur en Páll myndi blöð.
 Mary will send Peter more books than Paul will newspapers.
 ‘Mary will send Peter more books than Paul will newspapers.’
- (31) ??María myndi senda Pétri fleiri bækur en Páll myndi Jóni.
 Mary will send Peter more books than Paul will John.
 ‘Mary will send Peter more books than Paul will John.’

However, contrary to Holmberg and Platzack’s (1995) generalisations, it seems that the verb *senda* allows the *to*-construction.¹⁴

Then, on the basis of my assumptions so far, Pseudogapping should be allowed (and fully grammatical) in this case. This prediction is borne out:

- (32) María myndi senda fleiri bækur til Péturs en Páll myndi til Jóns.
 Mary will send more books to Peter than Paul will to John.
 ‘Mary will send more books to Peter than Paul will to John.’

These data permit the conclusion that there is at least a very strong preference for the prepositional remnant in Pseudogapping (as indicated in the generalisation in (11)), and that there is indeed a correlation between a verb allowing the *to*-construction and the occurrence of this verb in Pseudogapping.

This hypothesis is corroborated by evidence from the *skila/ræna* class of verbs that allow the *to*-construction.

¹⁴ K. Ottósson (p.c.).

3.2. Pseudogapping in the *skila/ræna* verb class

The *skila/ræna* verb class shows a greater variation in case assignment, depending on the verb. This is illustrated in the table below.

Verb	Meaning	Case of the IO	Case of the DO
<i>skila</i>	<i>return</i>	<i>DAT</i>	<i>DAT</i>
<i>ræna</i>	rob	ACC	DAT
<i>óska</i>	wish	DAT	GEN
<i>leyna</i>	hide	ACC	DAT
<i>spyrja</i>	ask	ACC	GEN

Some examples with these verbs are shown in (33) and (34) (taken from Holmberg & Platzack 1995:188).

- (33) María skilaði mér bókinni minni.
 Maria returned me-DAT the-book-DAT my-DAT
 ‘Maria returned me my book.’

- (34) Þeir rændu Ólaf peningunum.
 They robbed Olaf-ACC the-money-DAT
 ‘They stole the money from Olaf.’

The *skila/ræna* class generally permits the *to*-construction, as is illustrated in (35) to (37) (from Holmberg & Platzack 1995:205).

- (35) Hún skilaði bókinni til Jóns.
 She returned the-book to John.
 ‘She returned the book to John.’
- (36) Þeir ætluðu að ræna veskinum af mér.
 They intended to rob the-purse of me.
 ‘They intended to steal my purse of me.’
- (37) Jón leyndi sannleikanum fyrir Maríu.
 John concealed the-truth for(of) Maria.
 ‘John concealed the truth from Maria.’

As shown in the introduction, Pseudogapping occurs with *skila*:

- (38) María myndi skila fleiri bókum til Péturs en Páll myndi til Jóns.
 Maria will return more books to Peter than Paul will to John.
 ‘Maria will return more books to Peter than Paul will to John.’

- (39) ??*María myndi skila fleiri bókum til Péturs en Páll myndi blöðum til Jóns.*
 Maria will return more books to Peter than Paul will newspapers to John.
 ‘Maria will return more books to Peter than Paul will newspapers to John.’
- (40) **María myndi skila fleiri bókum til Péturs en Páll myndi blöðum.*
 Maria will return more books to Peter than Paul will newspapers.
 ‘Maria will return more books to Peter than Paul will newspapers.’

3.3. Evaluating the PP remnant generalisation

In this section, possible reasons for the PP remnant generalisation are examined. In particular, the question why the *to*-construction is allowed in one Icelandic verb class and not in the other is interesting. Holmberg & Platzack (1995) offer a comparison between the *to*-construction and the inverted double object construction. As these two constructions actually have a lot in common, it is astonishing that we should not find Pseudogapping with indirect remnants without prepositions in Scandinavian Pseudogapping, a question to which I will return shortly.

With respect to argument structure, Holmberg & Platzack (1995:207) point out that in the inverted double object construction, the dative IO is not a pure experiencer. Instead, it shares the thematic properties of a PP in the Mainland Scandinavian and English *to*-construction.

In their syntactic analysis of inversion in the *gefa* verbs, Holmberg & Platzack (1995:206f.) use the Falk/Holmberg hypothesis (Falk 1990 and Holmberg 1991), which assumes a base-generated structure as in (41) below for the inversion cases.

- (41) (Icelandic)¹⁵
-
- hann sýndi bókasafni eð öllum stúdentum
 he showed the-library all students

According to this structure, the inverted DOC should be treated as *to*-construction, without preposition but with morphological case and focus instead.

Moreover, the inverted structure seems to share some focal properties with the *to*-construction. Inversion takes place with indefinite and/or heavy indirect objects, though neither of these two characteristics seem to be crucial as such – the requirement for inversion seems to be that the indirect object is more focussed than the direct one (cf. Ottósson 1991, Holmberg & Platzack 1995 for examples).

¹⁵ Holmberg&Platzack (1995:207).

The presence of the focus indicates the markedness of this word order, which can also be presupposed in the construction with the prepositional datives. There one might also assume that the *to*-phrase is emphasized by the mere choice of the dative construction (as opposed to unmarked word order IO>DO, which, presumably, displays no clear focal preference).

Hence, morphological case (Dative) and focus together fulfil the same syntactic requirements as the preposition in the Mainland Scandinavian languages, without violating the verb's selectional properties (which the preposition would do). (Holmberg/Platzack 1995:207).

Despite these similarities, the *to*-construction is not possible with *gefa*-verbs. Given the above, this seems to be a matter of lexical representation rather than syntactic or prosodic requirement. As Holmberg & Platzack (1995:204) put it: 'the lexical representation of *gefa*-verbs ... requires an experiencer with a dative. A PP cannot have dative Case, hence cannot satisfy the lexical selection requirements of the verb.'

- (42) *? Hún gaf bókina til Jóns.
 She gave the-book to John.
 'She gave the book to John.'
 (Holmberg/Platzack 1995:204)

However, given that the *gefa* verbs have an indirect object in sentence-final position, the next question is why indirect remnants without prepositions should not occur in Icelandic Pseudogapping.

A first, selectional argument comes from the observation that the verbs of the *skila/ræna* verb class do not obligatorily assign case to the indirect object, which is optional. According to Holmberg & Platzack (1995:205), *skila*, as opposed to *gefa*, can occur without an indirect object (43).

- (43) a. Hún hefur ekki skilað bókinni.
 She has not returned the-book.
 'She hasn't returned the book.'
 b. *?Hún hefur ekki gefið bókina.¹⁶
 She has not given the-book.
 'She hasn't given the book.'
 (Holmberg/Platzack 1995:205)

Due to this optionality, the experiencer argument can be realized as a PP.

This permits the assumption that in case the indirect object is mentioned at all, it may receive a certain amount of stress. This, however, is not the case in the canonical word order IO>DO, since there the accent may be expected to be rather on the sentence-final element, which is the direct object – that is, if there is any perceivable difference at all. The emphasis (or focus) on the indirect object, though, would naturally follow from the choice of the prepositional phrase, placed after the direct object.

In Pseudogapping, the sentence-final element (i.e. the remnant) displays a kind of inherent focus (stress) by its very nature, since it obligatorily contrasts with its antecedent. Hence, it may be appropriate to choose the prepositional phrase variant of word order in case the speaker wishes to place special emphasis on the indirect object in Pseudogapping.

¹⁶ Note that this example is grammatical with 'give' in the sense of 'give away'. Holmberg&Platzack (1995) refer to Halldór Sigurðsson.

4. Pseudogapping in Icelandic – an instance of Heavy Noun Phrase Shift?

It is a common assumption in the literature on Pseudogapping that the remnant always bears some kind of focus. This seems to be corroborated by the empirical observations made with respect to the markedness and information-structural properties of the remnant in the Icelandic Pseudogapping construction.

These information-structural properties of Pseudogapping have found their way into the literature on Pseudogapping with the assumption of either Heavy Noun Phrase Shift (cf. Jayaseelan 1990, Takahashi 2004) or focus movement (e.g. Jayaseelan 2001, Gengel 2006). Since Heavy Noun Phrase Shift (HNPS) is also found in Icelandic, independent of Pseudogapping, this section examines whether the movement that derives Pseudogapping could be HNPS.

4.1. Deriving indirect object Pseudogapping remnants via HNPS

The *skila/ræna* verb class, which allows Pseudogapping, does not have the possibility to emphasize the indirect object by means of inversion. Hence, to focus the indirect object, a different mechanism is needed. In principle, there are two possible variants: movement of the direct object (DO) across the indirect object (IO) (as in (44)) or movement of the indirect object (IO) across the direct object (DO) (as in (45)).

(44) $DO_i [IO > t_i]$

(45) $[t_i > DO] IO.$

Since Icelandic displays Heavy Noun Phrase Shift (HNPS) constructions with constituents that are reasonably heavy, this phenomenon could be considered to be at play in the movement operations suggested above.

According to Ottósson (1991), however, we find an asymmetric behaviour of the objects with respect to Heavy Noun Phrase Shift, since HNPS of the direct object (DO) across the indirect object (IO) leads to ungrammaticality, as is illustrated with the anaphoric relations in (46).

- (46) a. ?Ég gaf unnustu sína_i [piltinum sem hafði beðið óþreyjufullur í mörg ár]_i.
I gave fiancée Refl-ACC the-boy-DAT who has waited impatiently for many years.
- b. *Ég gaf unnusta sínum_i [stúlkuna sem allir strákanier voru á höttunum eftir]_i.
I gave fiancé(masc) Refl-DAT the-girl-ACC who all boys „liked“
(cited in Holmberg/Platzack 1995:211)

In sharp contrast to this, the indirect object can be moved via HNPS across the direct object. The slight decrease in acceptability in the case of the indirect object that has undergone HNPS could potentially be on a par with the marginally possible indirect object remnant in Icelandic Pseudogapping (as in (47)). Recall that if Scandinavian object shift were responsible for this movement, we would expect the indirect object Pseudogapping remnant to be fully grammatical.

- (47) ??*María myndi senda Pétri fleiri bækur en Páll myndi Jóni.*
 Mary will send Peter more books than Paul will John.
 ‘Mary will send Peter more books than Paul will John.’

Hence, the status of the indirect object in Icelandic Pseudogapping seems to be closer to the status of indirect objects in HNPS constructions. Arguably, this is not a very strong argument for a HNPS analysis yet, but we will see that the picture becomes clearer with direct objects.

4.2. Deriving direct object Pseudogapping remnants via HNPS

As shown by Ottósson’s examples in (48), the direct object does not undergo HNPS past the indirect object. This, at first sight, is an exact replication of the behaviour of direct objects in a Scandinavian object shift approach, as illustrated in (49).

- (48) a. ?*Ég gaf unnustu sína_i [piltinum sem hafði beðið óþreyjufullur i mörg ár]_i.*
 I gave fiancée Refl-ACC the-boy-DAT who has waited impatiently for many years.
 b. **Ég gaf unnusta sínum_i [stúlkuna sem allir strákanier voru á höttunum eftir]_i.*
 I gave fiancé(masc) Refl-DAT the-girl-ACC who all boys „liked“
 (cited in Holmberg/Platzack 1995:211)
- (49) a. *Ég skilaði ekki mannum bókinni.*
 I returned not man-the-DAT book-the-DAT
 b. *Ég skilaði mannum_i ekki t_i bókinni.*
 I returned man-the-DAT not book-the-DAT
 c. *Ég skilaði mannum_i bókinni_j ekki t_i t_j*
 I returned the-man-DAT book-the-DAT not
 d. **Ég skilaði bókinni_j ekki mannum t_j.*
 I returned book-the-DAT not man-the-DAT
 ‘I didn’t return the book to the man.’
 (Thráinsson 2001:168)

However, again we find that the pattern diverges from object shift, since object shift can move a direct object in a simple transitive construction without problems (cf. (50)), whereas Pseudogapping is completely ungrammatical with direct object remnants, as in (51) and (52) below.

- (50) *Jón las bókina_i ekki t_i.*
 John read book-the-ACC not
 ‘John didn’t read the book.’
 (Thráinsson 2001:164)
- (51) ***María myndi senda Pétri fleiri bækur en Páll myndi blöð.*
 Mary will send Peter more books than Paul will newspapers.
 ‘Mary will send Peter more books than Paul will newspapers.’

- (52) *Pétur hefur lesið fleiri bækur en María hefur dagblöð.
 Peter has read more books than Maria has newspapers.
 ‘Peter has read more books than Maria has newspapers.’

If Ottósson’s observations are true, then HNPS of direct objects (DO) across indirect objects (IO) seems to be blocked. The Scrambling alternative that he proposed to explain the Icelandic inversion examples, however, is rejected by Holmberg & Platzack (1995:213) on the grounds of the comparison to German (where two base-generated structures for inverted and non-inverted structures are assumed as well).¹⁷

On the basis of the data provided above, we can draw the conclusion that an HNPS approach to Icelandic Pseudogapping gives a better account of the empirical data.

However, we still need to account for the fact why prepositional phrases do appear as Pseudogapping remnants, and are not ruled out along with the other two types of remnants, given that PPs are not normally associated with Heavy *Noun* Phrase Shift. This is the question I will discuss in the next section.

5. The proposed analysis: Beyond HNPS

This final section aims to shed light on the question whether prepositional remnants in Pseudogapping should be subsumed under the HNPS approach proposed above. I will argue that this is possible, but that there are also other factors that facilitate PP extraposition in these particular cases. To this end, I will begin with a discussion of the notion of ‘heaviness’.

5.1. Heaviness and prominence: Arguments for PPs as remnants

Admitting HNPS into the equation necessarily entails the question of the *heaviness* of the Pseudogapping remnant. Jayaseelan (1990) based his HNPS account on the intuition that the remnant in Pseudogapping always has to be focused (the focus in question being contrastive focus). Hence, the remnant displays a sufficient amount of heaviness or prominence required for Heavy Noun Phrase Shift.¹⁸

However, this leaves us with the question why the only elements that seem to be able to be extraposed are *PPs* – for these, we cannot assume Heavy *Noun* Phrase Shift.

Among the decisive factors that generally seem to influence the choice of the *to*-construction instead of a regular double object construction, phonological and information-structural concerns factors play an important role, as pointed out in the literature on the dative alternation (cf. Levin & Rappaport-Hovav 2005 and the references cited therein).

As already mentioned above, the remnant in Pseudogapping is inherently emphasized. The conclusion one might draw from the distribution of Pseudogapping in Icelandic, Mainland

¹⁷ An alternative explanation could be lying in the different structure of the DO complements and the prepositional complements, i.e. a direct complement could be affected by deletion more immediately because of constituent structure (V+DO). It is unclear, however, how this would extend to the English data, possibly giving rise to a PP adjunct analysis, for which, to my knowledge, there is no sufficient motivation yet.

¹⁸ The observation made in the preliminary tests mentioned in footnote 11, namely that weak pronouns are strictly excluded as remnants in Pseudogapping, even in combination with a preposition, also lends indirect support to the assumption that heaviness plays a role.

Scandinavian, and English, is that the emphasis of the indirect object is preferably carried out in the phonologically more prominent *to*-construction. Put differently, in case the focus is to be on the indirect object, the sentence final position (naturally provided in the prepositional construction) and the phonologically more prominent element are employed together to achieve maximal effect. However, this notion of ‘phonological prominence’ is not without problems – it is hard to perceive the prepositional phrase as being phonologically more prominent in English, a point to which I will return shortly.¹⁹

Furthermore, the relative weight of constituents may be playing a role, too. Although this component seems to be less motivated for the cases above, there have been studies to the effect that the choice between the two structures in the dative alternation are also influenced by the “weight” or “heaviness” of the constituents (cf. Wasow (2002)).

On the information-structural level, the long-standing assumption that given material precedes new material seems to mirror the Pseudogapping facts very well – given that given material is deleted in the second conjunct. The second factor arising in Pseudogapping is the inherent contrastivity on the Pseudogapping remnant. Since the remnant is always contrasted to its counterpart in the antecedent clause, there is an obligatory ‘newness’. If, then, the remnant is to be contrasted, this could tie in with considerations of heaviness and prominence, leading to the preference of the DO>PP word order.

The question of givenness of constituents also establishes a link to the argument structure discussion outlined in the previous sections: Except for the verb “to give”, other verbs have a clear tendency towards allowing a ditransitive along with a monotransitive structure, e.g. the verb “to send” or “to return”. As shown above, the Icelandic counterparts of these verbs permit the Pseudogapping construction. This is possibly a further argument to add a prepositional phrase in case the non-obligatory argument is to be mentioned at all, and contrasted with respect to its antecedent.

5.2. Prosodic properties of PPs and the branching condition

In this section, I come back to the question of phonological prominence, as outlined in the section above. Generally, it seems to be the case that prepositional complements can undergo extraposition more easily than other complements (J. Hetland, p.c., and Hetland 1992). On the other hand, Inkelas & Zec (1990, 1995) observe that there are phenomena in which prosodic constraints seem to be placed on the ability of a constituent undergoing extraposition.

I will argue here that these two factors work together in the derivation of Scandinavian Pseudogapping.

Inkelas & Zec (1995) show that in (i) Heavy Noun Phrase Shift in English, and (ii) topicalisation in Serbo-Croatian, prosodic restrictions must be obeyed. In particular, they claim that in grammatical Heavy Noun Phrase Shift constructions, ‘the “shifted” noun phrase contains at least two phonological phrases, while any attempt to shift an NP consisting of only a single phonological phrase is judged ungrammatical’ (Inkelas & Zec 1995:546).

- (53) a. Mark showed to John [[some letters] [from Paris]]_{NP}
 b. *Mark showed to John [[some letters]]_{NP}

(Inkelas & Zec 1995:546, their example 24. Inner brackets symbolise the phonological phrases.)

¹⁹ Anna McNay (p.c.).

In Serbo-Croatian topicalisation, the same restrictions seem to hold (Inkelas & Zec 1995:546, their example 23):

- (54) a. [[Taj] [čovjek]]_{NP} voleo-je Mariju
 that man loved-Aux Mary
 ‘That man loved Mary.’
- b. *[[Petar]]_{NP} voleo-je Mariju
 Peter loved-Aux Mary
 ‘Peter loved Mary.’

Inkelas & Zec point out that in both cases, there is the requirement that the topic or the shifted NP must be a *branching phonological phrase*, i.e. the head of a phonological phrase must take a complement. This is borne out in [some letters] in (53), that branches out to the PP below, and, more clearly, in the topicalisation case in (54), where only DPs can be fronted (not NPs on their own).

That this correlation is not entirely coincidental can be shown with data from *Stylistic Fronting* in Icelandic. Holmberg (2000:448-449) points out that DPs and PPs undergo stylistic fronting, as illustrated in (55) and (56).

- (55) Flestir sem [í Ósló]_i hafa verið t_i hafa gengið eftir Karl Johan.
 Most that in Oslo have been have walked along Karl Johan.
 ‘Most of those that have been in Oslo have walked along Karl Johan street.’
- (56) Þeir sem [Þá erfiðu ákvörðun]_i verða að taka t_i
 those that that hard decision must to take
 ‘those who must take that hard decision’

In principle, nouns can also undergo stylistic fronting (Hrafnbjargarson 2004), but such examples are clearly marked, at least in the case where a noun only carries a definite article suffix, as in (57), and thus constitutes a non-branching phonological phrase.

- (57) ??Allir sem myndina_i sáu t_i voru hrifnir.
 All that painting-the saw were impressed
 ‘Everyone who saw the painting was impressed.’

The cases in which the noun phrase carries a definite article suffix are precisely the ones where Pseudogapping seems to be ruled out in Scandinavian, i.e. the cases with direct object, and indirect object without preposition. Thus, the combination of a more restricted version of HNPS (or rightward movement in the case of PPs), and a prosodic constraint on PPs seems to capture the empirical situation in Icelandic and Mainland Scandinavian Pseudogapping.

The open question that remains, of course, is whether a similar prosodic condition for English simply does not exist, since English allows extraposition of elements that are not phonological phrases but merely phonological words (e.g. bare plurals). The answer to this question requires a more thorough investigation of the prosodic structure of the two language groups in question, which I will leave for further research.

6. Conclusion

In this paper I have discussed Scandinavian Pseudogapping data. I have summarised the empirical findings in the generalisation in (11), which states that Scandinavian Pseudogapping only allows prepositional remnants in Pseudogapping. On the basis of this generalisation, I have argued that neither an analysis in terms of Scandinavian object shift nor an analysis in terms of ‘English’ object shift (as proposed by Lasnik (1995, 1999) for English Pseudogapping) can account for the Scandinavian data. The discussion of the Icelandic data in section 3 suggested that the Pseudogapping remnant generalisation is reflected in the different verb classes permitting the Pseudogapping construction. Furthermore, a correlation between Heavy Noun Phrase Shift and Pseudogapping was put forward to account for the lack of direct object remnants and indirect object remnants without preposition. In order to derive the grammatical status of the prepositional remnant, information structure has been considered, leading to an analysis that combines a restricted version of HNPS in the Scandinavian languages with a prosodic constraint on extraposition, the branching condition introduced by Inkelas & Zec (1990, 1995).

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