

Approximate Nature of Object Shift
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Abstract

In this paper I investigate the environments in which Scandinavian Object Shift OS (Holmberg 1986) is (in-)applicable based on information structure (Lambrecht 1994, Kiss 1998, Büring 1997, Vilkuna 1995). I show that Swedish OS can apply in sentence-focus, predicate-focus, contrastive verb-focus, verb-focus, and argument-topic, whereas it is inapplicable in argument-focus, contrastive argument-focus, and contrastive topic. With these results, I claim that semantics of OS is not neatly classified into the dichotomy between the position that an object occupies and the interpretation that the object receives as argued by Diesing (the Mapping Hypothesis; Diesing 1992, 1997), and that the derivational mechanism of OS that (tacitly) assumes the hypothesis (Chomsky 2001) makes a wrong prediction. With data of Negative/Quantifier Movement and *wh*-OS in Icelandic, I claim that bare pronominal forms, including bare quantifiers/negatives and bare *wh*-pronouns, tend to move obligatorily or optionally in Icelandic. I also claim that full NP shift in Icelandic may be triggered only by either the property of Icelandic present tense that it normally receives generic reading or focalization on a main verb. To account for OS, I introduce a new notion, the *exhaustive identification domain* EID, the syntactic domain which corresponds to a subset of the set which exhaustive identification (Kiss 1998) operates on and which semantic/information-structural properties are assumed to be reflected on. With this notion, I formulate (in-)applicability of Swedish OS as follows: a pronominal object can appear anywhere either inside or outside the EID, but cannot cross the EID. I propose the Object Shift Parameter as follows: a pronominal object may (Icelandic) or cannot (Swedish) cross the EID. I also argue that Holmberg's Generalization (Holmberg 1986) that OS is available when a main verb also moves can be accounted for as follows: main verb movement triggered by the V2 constraint extends or transports the EID, which paves the way to availability of OS.

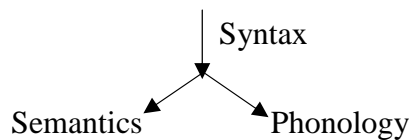
Approximate Nature of Object Shift*

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1. Introduction

The traditional assumption in generative grammar is that the semantic and phonological components are part of syntax; those components are input to actual semantic interpretation and actual phonological realization. This has traditionally been represented as the (reversed) Y-model (Chomsky 1981, 1995):

(1) Y-model:



This syntactic model yields a theoretical assumption: since a resulting syntactic structure receives an interpretation, the position that an argument occupies in a grammatical structure should coincide with the interpretation that the argument receives. A predominant study based on this assumption is that of the cartography (Rizzi 1997, Cinque 1999): it is claimed that positions of arguments, whether they are base-generated in or move to the positions, make a hierarchy that is universally determined, regardless of whether a language realizes (one or some of) the positions in the hierarchy.

The Scandinavian languages have a peculiar movement phenomenon called Object Shift (OS), in which a pronominal object moves out of VP (Holmberg 1986, 1999):

(2) a. Jag kysste henne inte.
I kissed her not
'I didn't kiss her.'

b. Jag kysste henne inte [_{VP} kysste henne]
(Holmberg 1999:1,(1))

It is widely claimed that only pronouns can move in the Scandinavian languages except

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Icelandic (3a), whereas not only pronouns but full NPs can optionally shift in Icelandic (3b).¹

- (3) a. Dom känner honom/*Gunnar alla. (Swe.)
they know him Gunnar all
'They all know him/Gunnar.'
(Holmberg 1986:223,(193))
- b. Jón keypti hann/bókina ekki. (Ice.)
Jón bought it the-book not
'Jón didn't buy it/IT/the book.'
(Holmberg 1986:229,(205); 217,(172))

OS has not been an exception in the above tradition. Diesing (1992) proposes the Mapping Hypothesis, claiming that an object that is new to the discourse and focused stays within VP whereas an object that is defocused having old information moves out of VP. Most of proposed mechanisms deriving OS (tacitly) assume the Mapping Hypothesis (e.g. Chomsky 2001).

In this paper I tackle the fundamental question whether semantics of OS is so neatly classified into a dichotomy between the position that an object occupies and the interpretation that it receives, by investigating the environments in which OS is (in-)applicable based on information structure. This paper is organized as follows. In section 2 I introduce a previous analysis on semantics of OS, the Mapping Hypothesis, which is proposed by Diesing (1992, 1997); I also introduce Holmberg's (1999) account of OS, and a derivational mechanism of OS that (tacitly) assumes the Mapping Hypothesis (Chomsky 2001). In section 3 I introduce information structure, its definition and eight types of information structure, on which I base my investigation (Lambrecht 1994, Kiss 1998, Büring 1997, Vilkuna 1995). In section 4 I investigate the environments in which OS is (in-)applicable based on those information structures. I show that Swedish OS occurs or does not occur in the cases in which the Mapping Hypothesis does not predict. I also show that pronominal OS is almost obligatory in Icelandic, but full NP shift is in fact limited to only a few cases. From these data, I claim that semantics of OS is not so simple as claimed by the Mapping Hypothesis, and that a derivational mechanism that assumes the hypothesis makes a wrong prediction. In section 5 I discuss relevant facts on OS: Long OS, reflexives, movement of pronominal adverbials, expletives/quasi-arguments, adverbial intermingling (+ Long OS), and OS in *yes-no* question. Concerning Icelandic OS, I claim that bare pronominal forms, including bare quantifiers/negatives and bare *wh*-pronouns, tend to move obligatorily or optionally with data of Negative/Quantifier Movement and *wh*-OS. I also argue that full NP shift may be triggered only by either property of Icelandic present tense that it normally receives generic reading or focalization on a main verb. In section 6 I propose a possible account of pronominal OS,

¹ But see Nilsen (1997), who claims that full NP shift is not impossible in the Scandinavian languages other than Icelandic, and Josefsson (2003) for a counterargument against this claim.

introducing a new notion, the *exhaustive identification domain*, and also a parameter that distinguishes Swedish OS from Icelandic OS. I also present an account of Holmberg's Generalization (Holmberg 1986) with that notion. In section 7 I conclude the paper.

In the rest of this section, I mention basic facts of OS. Holmberg (1986) originally accounts for OS as follows: OS can apply when main verb movement takes place too (Holmberg's Generalization):

(4) a. Jag kysste henne inte [_{VP} kysste henne].

I kissed her not
'I didn't kiss her.'

b. (*)Jag kysste inte henne.

(5) a. *Jag har henne inte [_{VP} kysst henne].

I have her not kissed

b. Jag har inte kysst henne.

'I haven't kissed her.'

(6) a. *... att jag henne inte [_{VP} kysste henne].

that I her not kissed

b. ... att jag inte kysste henne.

'... that I didn't kiss her'

(Holmberg 1999:1,(1a-c))

A pronominal object is allowed to move when a main verb also moves (4a); in Swedish and some varieties of Norwegian an object can be stranded even if it is weak²; in Danish, most varieties of Norwegian, and Icelandic it cannot be left if it is unstressed and simple (4b). When a main verb does not move, an object cannot move either: an Aux(iliary) verb is present (5); verb movement does not occur in an embedded clause (6). Icelandic differs from the other Scandinavian languages concerning (6): Icelandic has main verb movement in an embedded clause; thus, OS can take place in an embedded clause too³:

² See Josefsson (2003) for an argument for optional Swedish OS based on a quantitative investigation.

³ Icelandic has a construction introduced by *það* 'there'. Arguments may be located in different positions in this construction:

i) Það hefur (^{OK}einhver köttur) verið (^{OK}einhver köttur) í eldhúsinu.
there has some cat been some cat in the-kitchen
'There has been some cat in the kitchen.'

A transitive verb may appear in this construction (*Transitive Expletive Construction*):

ii) Það hefur einhver köttur étið mýsna.
there has some cat eaten the-mice
'Some cat has eaten the mice.'

(Both from Vangsnes 2002:44-45,(1,3))

- (7) ... að hann þekki hana ekki.
that he knows her not
'... that he doesn't know her'
(Holmberg and Platzack 1995:144,(6.7))

2. Previous analyses of Object Shift

2.1 Semantics of Object Shift

Diesing (1992, 1997) claims that presence of object movement depends on definite/specific status of nominals. Diesing's (1992) argument starts from two kinds of reading that indefinites can be assigned:

- (8) Firemen are available.

One possible reading is that there are firemen who are available 'at some point in time' (i.e. *existential* reading); the other reading is that firemen are available as their general attribute (i.e. *generic* reading) (Diesing 1992:17-18). It is stated that the first reading locates the accent on a subject (9a), whereas the second reading locates it on a predicate (9b) (Diesing 1992:50).

- (9) a. FIREMEN are available.
b. Firemen are AVAILABLE.

Diesing proposes the Mapping Hypothesis, as below:

(10) The Mapping Hypothesis:

1. VP maps into the Nuclear Scope (the domain of existential closure).
2. IP maps into the Restriction (of an operator).

According to this hypothesis, an indefinite is subject to an unmarked process, *existential closure*, within the nuclear scope⁴; an indefinite that receives existential reading as well as an argument that is non-specific, new to the discourse, and/or focused is mapped inside VP. Existential closure does not apply to an indefinite that receives generic reading; it is mapped into the restrictive clause IP. In addition, a definite is old information and receives referential interpretation; being incompatible with existential closure, a definite is forced to move out of VP. A pronoun is essentially definite and old information with respect to the discourse; it must

I do not discuss this construction in this paper.

⁴ Following Heim (1982), Diesing claims that an indefinite is not inherently quantified, but only introduces a variable that is bound by an existential operator; it is not an indefinite phrase, but the variable it introduces, that is bound by an existential operator and actually subject to existential closure. I somewhat simplify the entire argument here.

move out of a base position to escape inappropriate existential closure. When a definite receives contrastive stress or reading, it is allowed to receive interpretations other than referential reading (e.g. new or unexpected information) and stay in situ (Diesing 1992:50-51, 1997).

Specifically, the following patterns of OS are predicted according to the Mapping Hypothesis:

- (11) a. Hann las (*bækur) ekki (^{OK}bækur). (Ice.)
 he read books not books
 ‘He didn’t read books.’
 (Diesing 1997:412,(71a-b))
- b. Ég LES bækur ekki ...
 I read books not
 ‘I don’t READ books (, but only BUY them).’
 (Diesing 1997:412,(71d))
- (12) Jón keypti (^{OK}bókina/^{OK}þessa bók) ekki (^{OK}bókina/^{OK}þessa bók). (Ice.)
 Jón bought the-book this book not the-book this book
 ‘Jón didn’t buy the book/this book.’
 (Diesing 1997:417-418,(78,81))
- (13) Jeg har ingen paraply, men jeg k per (*en) muligens (^{OK}en) i morgen. (Nor.)
 I have no umbrella but I buy one possibly one tomorrow
 ‘I have no umbrella, but I will possibly buy one tomorrow.’
 (Diesing 1997:413,(74-75))
- (14) Hann las (^{OK} ær) ekki (* ær). (Ice.)
 he read them not them
 (Diesing 1997:413-414,(76))

An indefinite that is subject to existential closure remains in situ (11a); it may move when it receives quantificational/specific interpretation (11b). Though not impossible, an unshifted definite NP is awkward for a familiar, referential status, and must move out of VP to avoid inappropriate existential closure; this improves when an unshifted definite NP takes contrastive interpretation (12). An indefinite pronoun must stay in situ for a novel status; it is subject to existential closure within VP (13). A definite pronoun cannot remain within VP, since it is familiar to the discourse; it must move out of VP to escape inappropriate existential closure (14).

Diesing’s claim that an object that has a familiar, presupposed status moves has tacitly, widely been accepted so far in the analyses of OS (e.g. Holmberg 1999, Chomsky 2001,

Broekhuis 2001, Erteschik-Shir 2005). What the Mapping Hypothesis claims is a dichotomy on a relation between the position that an object occupies and the interpretation that it receives. One predicts the following two, regarding (pronominal) OS: i) an object (pronoun) that receives a new and unexpected information could not move; and ii) an object (pronoun) that is familiar and presupposed in the discourse would not remain in situ. I show below that both predictions are not tenable.

2.2 Proposed derivational mechanisms of Object Shift

In this section I introduce Holmberg's (1999) account of OS, and a derivational mechanism of OS that (tacitly) assumes the Mapping Hypothesis (Chomsky 2001).

Holmberg (1999) states that OS is blocked not only when a main verb does not move but when any visible category is left VP-internally:

(15) a. *Jag talade henne inte med henne.

I spoke her not with

b. Jag talade inte med henne.

'I didn't speak with her.'

(16) a. *Jag gav den inte Elsa henne.

I gave it not Elsa

b. Jag gav inte Elsa den.

'I didn't give it to Elsa.'

(17) a. *Dom kastade mej inte ut mej.

they threw me not out

b. Dom kastade inte ut mej.

'They didn't throw me out.'

(Holmberg 1999:2,(2a-c))

A preposition (15a), an indirect object (16a), and a verb particle (17a) all prevent an object pronoun from being shifted.

Based on the facts above, Holmberg (1999) proposes a system on application of OS that consists of the following three: i) when OS is (in-)applicable; ii) what kind of objects can shift when OS can apply; and iii) what licenses a moved object. They are formulated respectively as follows:

- (18) a. Object Shift cannot apply across a phonologically visible category asymmetrically c-commanding the object position except adjuncts. (Holmberg 1999:15)
- b. Object Shift affects only nominal objects which are [-Foc]. (Holmberg 1999:22)
- c. [-Foc] must be governed by [+Foc]. (Holmberg 1999:25)

(18a) is a generalization that an object cannot move when any visible category remains inside VP. When all VP-internal categories move, (18b) applies, determining whether OS actually takes place. OS applies only to an unstressed pronoun, or a nominal that is definite, specific, light, and defocused, as illustrated in Icelandic:

- (19) a. Jón keypti ekki bókina/bók.
 Jón bought not the-book/a-book
 'Jón didn't buy the book/a book.'
- b. Jón keypti bókina/*bók ekki.

It is argued that an argument with [+Foc] can stay in the focus domain, whereas an argument with [-Foc] must be licensed by the argument with [+Foc] in the focus domain, or must move to a position where it can be licensed by the latter, which is what (18c) states. Namely, when a category remains inside VP, the object with [-Foc] is licensed by the category with [+Foc]; when none of such categories remains inside VP, an object must move to a position adjacent to a licensing category with [+Foc] (Holmberg 1999:23-25). Based on Halle and Marantz (1993), Holmberg claims that [\pm Foc] is introduced when phonological features are also introduced, that is after syntax, and feeds a post-syntactic/PF operation (Holmberg 1999:29).⁵

Beyond an account of only OS, Chomsky (2001) tries to integrate it into an account of difference between OS languages and non-OS languages in general, tacitly assuming the Mapping Hypothesis. The core idea is that only when an object rejects the interpretation that it should receive in the first Merge (i.e. base-generated) position does OS apply. Under the *phase* theory, which assumes that properties of locality are attributed to v*P and CP, Holmberg's (1999) formulation (18a) is reformulated in terms of the *phonological border*: in a phase [_{HP} Spec [H XP]], XP is at the phonological border when phase-internal constituents, Spec and H, move from inside the phase (i.e. [Spec, H ... [_{HP} Spec [H XP]]]). With the *EPP*, the property that is assumed to trigger movement, OS is formulated as follows:

⁵ Holmberg gives several reasons for which OS is a PF operation. First, OS does not license parasitic gaps, which shows that OS is not A'-movement. Second, OS does not affect binding of anaphors, which shows that OS is not A-movement either. Finally, it is argued that OS violates the Extension Condition (Chomsky 1995:190), that is, it does not obey strict cyclicity, based on data of *Verb-Topicalization*. See Holmberg (1999) for detailed discussions and relevant data. I turn to Verb-Topicalization later.

(20) a. v^* is assigned an EPP-feature only if that has an effect on outcome.

b. The EPP position of v^* is assigned Int.

c. At the phonological border of v^*P , XP is assigned Int'.

(Chomsky 2001:35,(61))

(20a) is the economy principle for both OS and non-OS languages; it is combined with the principle (20b) to restrict optional operations to the cases in which a new interpretation is produced. (20c) is the parameter distinguishing OS from non-OS languages. Difference between OS and non-OS languages is accounted for as follows⁶:

(21) Non-OS languages:

a. ... Neg [v^*P v^* [VP V/\bar{V} Obj]]

↑Int/Int'

b. ... Neg [v^*P Obj [v^*P v^* [VP V/\bar{V} Obj]]]]

↑Int

(22) OS languages:

a. ... Neg [v^*P v^* [VP V Obj]]

↑Int/Int'

b. ... Neg [v^*P Obj [v^*P v^* [VP V Obj]]]]

↑Int

c. ... Neg [v^*P v^* [VP \bar{V} Obj]]

↑Int'

d. ... Neg [v^*P Obj [v^*P v^* [VP \bar{V} Obj]]]]

↑Int

The parameter (20c) does not apply to non-OS languages; thus, either Int or Int' is freely assigned to the object in the first Merge position, whether VP is vacated or not (namely, whether an object is at the phonological border or not) (21a). When a new semantic effect that an object cannot obtain in situ is produced (e.g. a *wh*-object), v^* can be assigned the EPP under (20a); a new semantic effect is assigned to the object that moves to [Spec, v^*P] under (20b) (and it moves up to [Spec,CP]) (21b). When VP is not vacated (that is, when an object is not at the phonological border) in OS languages, the result is the same as that of non-OS languages: since the parameter (20c) does not apply, either Int or Int' is freely assigned to the object in the first Merge position (22a). When an object receives the interpretation like *wh* that it cannot obtain in the original position, v^* is assigned the EPP under (20a); the object moves to [Spec, v^*P] to receive a new interpretation under (20b) (and it further moves up to [Spec,CP]) (22b). When an object is at the phonological border after movement of all

⁶ Here, I make Neg a representative of sentential adverbs with which presence of OS can be investigated.

VP-internal categories, the parameter (20c) allows options. Namely, the object is assigned Int' that it receives in the first Merge position, remaining in situ (i.e. [Jón keypti ekki [_{v*P} Jón keypti bókina]]) (22c). If the object rejects Int', v* is assigned the EPP under (20a); the object moves to [Spec,v*P] to receive the interpretation that it cannot obtain in situ, namely Int: [... [_{v*P} inte henne [_{v*P} jag kysste henne]]] (22d) (Chomsky 2001:34-36). It is claimed that in OS, an object firstly moves to [Spec,v*P], then to a higher surface position at the phonological component (*Disl(ocation)*; Chomsky 2001:30); it appears that the entire picture of OS is taken to be a mixed operation at syntax and post-syntax in this system.⁷

An obvious prediction from (22c-d) is that the following case would be excluded:

(23) *... Neg [_{v*P} Obj [_{v*P} [_{VP} V Obj]]]
 ↑Int'

Int' is the interpretation that an object should not reject to receive in the first Merge position. Thus, a shifted object would not be assigned Int' in v*'s EPP position. More specifically, the case in which an object that is assigned Int' appears crossing over Neg with application of Disl would not be observed. I show later that this prediction is untenable.⁸

3. Information structure

I introduce information structure, its definition and eight types of information structure, in this section.

Lambrecht (1994) defines information structure as follows:

(24) INFORMATION STRUCTURE: That component of sentence grammar in which propositions as conceptual representations of states of affairs are paired with lexicogrammatical structures in accordance with the mental states of interlocutors who use and interpret

⁷ Notice that according to Chomsky's system, object movement from the first Merge position to [Spec,v*P] is string vacuous: the movement is not reflected on linear order. Consider the fact that shift of an unstressed pronoun is optional in Swedish and some dialects (Holmberg 1999, Josefsson 2003):

i) Jag kysste (^{OK}henne) inte (^{OK}henne). 'I didn't kiss her.'

The post-adverbial object case would be analyzed as follows:

ii) [Jag kysste [_{v*P} inte [_{v*P} henne [_{v*P} jag v* [_{VP} kysste henne]]]]]

Rejecting Int' that should be assigned in the first Merge position, *henne* would move to [Spec,v*P], where it is assigned Int; the construction would only lack Disl to the surface position over the negation. How is it possible to distinguish string vacuous derivation from covert OS as below, which would yield a semantic property acquired at [Spec,v*P] with the phonological matrix of an object left in situ?

iii) [Jag kysste [_{v*P} inte [_{v*P} henne [_{v*P} jag v* [_{VP} kysste henne]]]]]

Chomsky claims that covert OS is not found (Chomsky 2004:115). The reason is possibly as follows: for covert OS to take place, the proposed matching operation between a head (v* here) and an object (i.e. *Agree*) is required to occur twice; the second *Agree* cannot take place after VP is spelled out, though, as it is assumed that the components within a spelled out domain cannot be accessed in further operations (i.e. the *Phase Impenetrability Condition*). His claim is based on the assumption that phases are v*P and CP. If, as claimed by Sigurðsson (2007), only CP is a phase, however, Chomsky's argument on absence of covert OS would be refuted. It seems to me that accounts of OS by the phase system make the entire picture complicated.

⁸ Concerning other proposals, see Erteschik-Shir (2005) for a purely phonological account of OS. See Fox and Pesetsky (2005) for an account of OS by their Cyclic Linearization system.

these structures as units of information in given discourse contexts.
(Lambrecht 1994:5)

According to Lambrecht (1994:5), ‘the relationship between a given sentence form and the function of the sentence in discourse is directly determined by grammatical convention’ in discourse pragmatics; ‘the information structure of a sentence is the formal expression of the pragmatic structuring of a proposition in a discourse’. There are no sentences that do not have information structure. Among the most important categories of information structure are topic and focus, which are related to a speaker’s evaluation on whether a relation between a proposition and a given discourse situation can be predicted. Information structure enters all levels that have meanings like morphology, syntax including lexical selection and word ordering, and prosody (Lambrecht 1994:5-6).

I follow Lambrecht’s definition of information structure except the following point. I take the ability to recognize information structure to be the faculty to recognize contextual components like topic and focus that can be realized not only in actual language use between two speakers but in one’s mind. Thus, I do not assume that application of the definition of information structure always involves notions like ‘use’, ‘communication’, and ‘utterance’, that imply presence of more than one speaker. I use eight types of information structure introduced below as a kind of diagnosis that investigates the ability to recognize contextual components.

Lambrecht proposes three kinds of information structure:

(25) a. *Sentence-focus*:

What’s up? – [_{Foc} John always kisses me (in presence of others!)].

b. *Predicate-focus*:

What did John always do? – He always [_{Foc} kissed me].

c. *Argument-focus*:

Who does John kiss every day? – He always kisses [_{Foc} her].

Nothing is presupposed in a question (25a); an answer reports an event, being presentational. The answer contains only new information, that is, the entire answer sentence carries the focus. A subject *John* is already presented in a question (25b); the predicate whose information is missing in the question is identified in an answer, carrying the focus. The subject carries a topic, and the predicate makes a comment of the subject in the answer. A question is a presupposed open proposition in which information on an argument corresponding to a *wh*-phrase is missing (25c); the information is provided and identified in an answer (Lambrecht 1994:222-223).

I would like to refer to difference between focalization and topicalization. Lasnik and Stowell (1991) claim that there are two kinds of leftward movement, based on data of Weak

Cross-Over:

(26) a. ??JOHN_i, his_i mother likes John.

b. John_i, his_i mother likes John.

It is awkward for a pronoun *his* to corefer with *John* in (26a), whereas such a coreference is possible in (26b). Based on their claim, Rizzi (1997:292) proposes that (26a), focalization, is quantificational, whereas (26b), topicalization, is not. I maintain this distinction between focalization and topicalization based on those literature. I call topicalization *Argument-topic*, and present data in the following manner:

(27) What's wrong with you? – [Top Me], Prof. Z. didn't recommend.

Kiss (1998:245-246) proposes distinction between argument-focus illustrated by (25c) and *contrastive* focus like (26a): argument-focus simply marks non-presupposed information, whereas contrastive focus acts as a quantificational operator in syntax, binding a variable within its scope. Büring (1997) suggests that contrastive focus should not be confused with contrastive topic as the former is 'used in corrections and contradictions' (Büring 1997:179,ft.7), as below:

(28) A: Did you kiss Mary?

B: I didn't kiss [Foc HER], but kissed [Foc LUCY].

Contrastive topic, on the other hand, is observed in, for instance, an answer to a multiple *wh*-question. Imagine a situation in which Speaker A knows that Fred and Bill attended a party and asks Speaker B, who attended the party too:

(29) A: Who ate what?

B: [Top Fred] ate [Foc the BEANS], and [Top Bill] ate [Foc the POTATOES].

In an answer to a multiple *wh*-question, contrastive topic denotes each member of a salient set (*Fred* and *Bill*), whereas focus denotes a member of the latter set (*the beans* and *the potatoes*). I present data of contrastive focus (hereafter, *contrastive argument-focus*) in the form of (28); I provide data of contrastive topic, presenting a salient set of alternatives in a question, as below:

(30) Did you kiss her and her sister?

– I kissed [Top her SISTER], but I didn't kiss [Top HER].

Vilkuna (1995:249-250) claims that a finite verb too has an information status in the same

way as arguments. According to her, whereas nominal arguments are distinguished only for context-new/old, finite verbs are distinguished not only for context-new/old but for polarity-new/old. She argues that polarity-newness is understood as an answer to a *yes-no* question. I assume *verb-focus* for context-new/old (31a), and *contrastive verb-focus* for polarity-new/old (31b).

(31) a. What did John always do to Mary? – He always [_{Foc} kissed] her.

b. Did you kiss Mary? – I didn't [_{Foc} KISS] her, but [_{Foc} HELD] her tight.

A question is a presupposed open proposition in which information on the event carried out by *John* and *Mary* is missing (31a); the event information is provided and identified in an answer. The information on the event carried out by *you* and *Mary* presented in a question is negated and corrected as *held* in an answer (31b).⁹

I summarize the eight types of information structure below:

(32) a. *Sentence-focus*:

What's up? – [_{Foc} John always kisses me (in presence of others!).]

b. *Predicate-focus*:

What did John always do? – He always [_{Foc} kissed me].

c. *Verb-focus*:

What did John always do to Mary? – He always [_{Foc} kissed] her.

d. *Contrastive verb-focus*:

Did you kiss Mary? – I didn't [_{Foc} KISS] her, but [_{Foc} HELD] her tight.

e. *Argument-topic*:

What's wrong with you? – [_{Top} Me], Prof. Z. didn't recommend.

f. *Argument-focus*:

Who does John kiss every day? – He always kisses [_{Foc} her].

g. *Contrastive topic*:

Did you kiss her and her sister?

– I kissed [_{Top} her SISTER], but I didn't kiss [_{Top} HER].

h. *Contrastive argument-focus*:

Did you kiss Mary? – I didn't kiss [_{Foc} HER], but kissed [_{Foc} LUCY].

⁹ I make a detailed discussion of these information structures in section 6.

I hereafter assume these eight types of information structure, based on which I investigate (in-)applicability of OS.

4. Investigation of the environments in which Object Shift is (in-)applicable

4.1 Swedish Object Shift

I investigate in which information structures of (32) OS applies/does not apply in Swedish. Sentence constructions relevant to OS are as follows:

- (33) a. Jag kysste henne inte.
I kissed her not
'I didn't kiss her.'
- b. Jag kysste inte henne/HENNE.
'I didn't kiss her/HER.'
- c. Kysst har jag henne inte (bara hållit henne i handen).
kissed have I her not only held her by the hand
'I didn't KISS her (, but only HELD her by the hand).'
- (Holmberg 1999:7,(11))

OS takes place in (33a), but not in (33b). (33c) is Verb-Fronting, a verb-focus construction in which a past participle moves to the sentence-initial position and OS also applies.¹⁰ I establish each information structure of (32) by presenting questions, and investigate which construction(s) among (33a-c) can be an appropriate answer form as answers. The results are as follows¹¹:

- (34) a. Sentence-focus:
What's up? – [_{Foc} John always kisses me (in presence of others!)].
- i) Jan kysser mej alltid.
Jan kisses me always
- ii) Jan kysser alltid mej.

¹⁰ Holmberg (1999) calls this construction *Verb-Topicalization*. To lessen a gap between what the terminology invokes and an actual semantic effect the construction has, I hereafter use a neutral term *Verb-Fronting*. See his paper for detailed discussions of participial movement.

¹¹ All test sentences are made with either *inte* 'not', *alltid* 'always', or *aldrig* 'never', since the Scandinavian words corresponding to those are the only sentential adverbials with which presence of OS can be tested without interference of comma intonation (Anders Holmberg, p.c.). Since Verb-Fronting construction is relevant to verb-focus and contrastive verb-focus, I give the results of judgment of this construction in those two contexts only. That construction is appropriate when a question contains a complex tense form 'Aux + Past Participle'. I presuppose the Swedish counterpart of 'what has John always done to Mary?' for the question of (34ciii), and that of 'have you kissed Mary?' for the question of (34diii).

- b. Predicate-focus:
 What did John always do? – He always [_{Foc} kissed me].
 i) Han kysste mej alltid.
 he kissed me always
 ii) ?Han kysste alltid mej.
- c. Verb-focus:
 What did John always do to Mary? – He always [_{Foc} kissed] her.
 i) Han kysste henne alltid.
 he kissed her always
 ii) Han kysste alltid henne.
 iii) ?Kysst har han henne alltid.
 kissed has he her always
- d. Contrastive verb-focus:
 Did you kiss Mary? – No, I didn't [_{Foc} KISS] her (, but [_{Foc} HELD] her tight).
 i) Jag kysste henne inte.
 I kissed her not
 ii) Jag kysste inte henne.
 iii) Kysst har jag henne inte.
 kissed has I her not
- e. Argument-topic:
 What's wrong with you? – [_{Top} Me], Prof. Z. didn't recommend.
 i) Prof. Z. rekommenderade mej inte.
 Prof. Z. recommended me not
 ii) Prof. Z. rekommenderade inte mej.
- f. Argument-focus:
 Who does John kiss every day? – He always kisses [_{Foc} her].
 i) *Han kysser henne alltid.
 he kisses her always
 ii) Han kysser alltid *henne/HENNE.
- g. Contrastive topic:
 Did you kiss her and her sister?
 – (I kissed [_{Top} her SISTER], but) I didn't kiss [_{Top} HER].
 i) *Jag kysste henne inte.
 I kissed her not
 ii) Jag kysste inte *henne/HENNE.

h. Contrastive argument-focus:

Did you kiss Mary? – No, I didn't kiss [_{Foc} HER] (, but kissed [_{Foc} LUCY]).

i) *Jag kysste henne inte.

I kissed her not

ii) Jag kysste inte HENNE.

OS can apply in sentence-focus (34a), predicate-focus (34b), verb-focus (34c), contrastive verb-focus (34d), and argument-topic (34e), including Verb-Fronting constructions (34c-diii); an object pronoun can either move or stay in the original position. On the other hand, OS cannot apply in argument-focus (34f), contrastive topic (34g), and contrastive argument-focus (34h); a pronoun must remain in situ in these information structures. I summarize (in-)applicability of OS in Swedish below:

(35) Applicability of OS (Swedish):

Applicable: Sentence-focus

Predicate-focus

Verb-focus

Contrastive verb-focus

Argument-topic

Inapplicable: Argument-focus

Contrastive topic

Contrastive argument-focus

4.2 Icelandic Object Shift

In this section I investigate in which information structures (32) OS applies/does not apply in Icelandic. I investigate which sentence form(s), either with or without OS, can be appropriate as an answer form to the questions in the eight information structures. (Note: Icelandic does not have a Verb-Fronting construction.) Since not only pronouns but full NPs can move in Icelandic, I present data of the pronouns, indefinites, and definites, in turn. The results of pronominal OS are as follows:

(36) a. Sentence-focus:

What's up? – [_{Foc} John always kisses me (in presence of others!)].

i) Jón kyssir mig alltaf.

Jón kisses me always

ii) *Jón kyssir alltaf mig.

b. Predicate-focus:

What did John always do? – He always [_{Foc} kissed me].

i) Hann kyssti mig alltaf.

he kissed me always

ii) *Hann kyssti alltaf mig.

- c. Verb-focus:
 What did John always do to Mary? – He always [_{Foc} kissed] her.
 i) Hann kyssti hana alltaf.
 he kissed her always
 ii) *Hann kyssti alltaf hana.
- d. Contrastive verb-focus:
 Did you kiss Mary? – No, I didn't [_{Foc} KISS] her (, but [_{Foc} HELD] her tight).
 i) Ég KYSSTI hana ekki.
 I kissed her not
 ii) *Ég KYSSTI ekki hana.
- e. Argument-topic:
 What's up with you every day?
 – [_{Top} Me], John always kisses/John always kisses me.
 i) Jón kyssir mig alltaf.
 Jón kisses me always
 ii) *Jón kyssir alltaf mig.
- f. Argument-focus:
 Who does John kiss every day? – He always kisses [_{Foc} her].
 i) Hann kyssir hana/HANA alltaf.¹²
 he kissed her always
 ii) Hann kyssir alltaf *hana/??HANA.
- g. Contrastive topic:
 Did you kiss her and her sister?
 – (I kissed [_{Top} her SISTER], but) I didn't kiss [_{Top} HER].
 i) ?Ég kyssti HANA ekki.
 I kissed her not
 ii) ??Ég kyssti ekki HANA.¹³
- h. Contrastive argument-focus:
 Did you kiss Mary? – No, I didn't kiss [_{Foc} HER] (, but kissed [_{Foc} LUCY]).

¹² A shifted stressed pronoun has an effect of focal contrast (Halldór Sigurðsson, p.c.).

¹³ Presence of OS is better than not. Cf.:

i) Ég kyssti ekki hana sjálfa.

I kissed not herself

ii) HANA SJÁLFA kyssti ég ekki.

herself kissed I not

It is better either that a reflexive follows the negation (i), or that the reflexive is located in the sentence-initial position (ii) (Halldór Sigurðsson, p.c.).

- i) Ég kyssti HANA ekki.
I kissed her not
- ii) ??Ég kyssti ekki HANA.

A pronominal object moves in all the information structures above. Remarkable is that unlike Swedish pronominal OS, not only a weak form but a stressed pronoun almost obligatorily move. The results of indefinite NP shift are as follows:

(37) a. Sentence-focus:

What's up? – [_{Foc} John always scribbles a car].

- i) *Jón párar bíl alltaf.
Jón scribbles a-car always
- ii) Jón párar alltaf bíl.

b. Predicate-focus:

What does John do every day? – He always [_{Foc} scribbles a car].

- i) *Hann párar bíl alltaf.
he scribbles a-car always
- ii) Hann párar alltaf bíl.

c. Verb-focus:

What does John do to a car every day? – He always [_{Foc} scribbles] a car.

- i) *Hann párar bíl alltaf.
he scribbles a-car always
- ii) Hann párar alltaf bíl.

d. Contrastive verb-focus:

Did John buy a car? – No, he didn't BUY a car (, but BORROWED it).

- i) *Hann KEYPTI bíl ekki.
he bought a-car not
- ii) Hann KEYPTI ekki bíl.

e. Argument-topic:

What's up with a car?

– [_{Top} A car], (well,) John always scribbles/John always scribbles a car.¹⁴

- i) *Jón párar bíl alltaf.
Jón scribbles a-car always
- ii) Jón párar alltaf bíl.

¹⁴ It is unnatural to make an indefinite NP topicalized unless it is as an echo question, in which case one gets a stress on an object in an introducing question as below (Halldór Sigurðsson, p.c.):

i) A CAR, what did you say about a car? – John fired a car yesterday.

- f. Argument-focus:
 What does John scribble every day? – He always scribbles [_{Foc} a car].
 i) *Hann p  rar b  l alltaf.
 he scribbles a-car always
 ii) Hann p  rar alltaf b  l/B  L.
- g. Contrastive topic:
 Did John buy a car and a bicycle?
 – (He bought [_{Top} a BICYCLE], but) he didn't buy [_{Top} a CAR].
 i) *Hann keypti B  L ekki.
 he bought a-car not
 ii) Hann keypti ekki B  L.
- h. Contrastive argument-focus:
 Did John buy a car? – No, he didn't buy [_{Foc} a CAR] (, but bought [_{Foc} a BICYCLE]).
 i) *Hann keypti B  L ekki.
 he bought a-car not
 ii) Hann keypti ekki B  L.

Shift of an indefinite NP is impossible in any kinds of information structure. The results of definite NP shift are as follows:

- (38) a. Sentence-focus:
 What's up? – [_{Foc} John always paints this house].
 i) ?? J  n m  lar   etta h  s alltaf.
 J  n paints this house always
 ii) J  n m  lar alltaf   etta h  s.
- b. Predicate-focus:
 What does John do every day? – He always [_{Foc} paints this house].
 i) ??Hann m  lar   etta h  s alltaf.
 he paints this house always
 ii) Hann m  lar alltaf   etta h  s.
- c. Verb-focus:
 What does John do to this house every day? – He always [_{Foc} paints] this house.
 i) Hann m  lar   etta h  s alltaf.¹⁵
 he paints this house always
 ii) *Hann m  lar alltaf   etta h  s.

¹⁵ The main stress lies on a main verb (Halld  r Sigur  sson, p.c.).

- d. Contrastive verb-focus:
 Did John buy this house?
 – No, he didn't [_{Foc} BUY] this house (, but [_{Foc} BORROWED] it).
 i) Hann KEYPTI þetta hús ekki.
 he bought this house not
 ii) Hann KEYPTI ekki þetta hús.
- e. Argument-topic:
 What's up with this house?
 – [_{Top} This house], (well,) John always paints/John always paints this house.
 i) ??Jón málar þetta hús alltaf.
 Jón paints this house always
 ii) ??Jón málar alltaf þetta hús.
- f. Argument-focus:
 What does John paint every day? – He always paints [_{Foc} this house].
 i) ??Jón málar þetta hús alltaf.
 Jón paints this house always
 ii) Jón málar alltaf þetta hús.
- g. Contrastive topic:
 Did John buy this house and that house?
 – (He bought [_{Top} THAT one], but) he didn't buy [_{Top} THIS house].
 i) ??Hann keypti ÞETTA hús ekki.
 he bought this house not
 ii) Hann keypti ekki ÞETTA hús.
- h. Contrastive argument-focus¹⁶:
 Did John buy this house?
 – No, he didn't buy [_{Foc} THIS house] (, but bought [_{Foc} THAT one]).
 i) ??Hann keypti ÞETTA hús ekki.
 he bought this house not
 ii) Hann keypti ekki ÞETTA hús.

A definite is mostly forced to stay in situ in sentence-focus (38a), predicate-focus (38b),

¹⁶ Icelandic uses the same word for *that* and *this* as below:

i) Keypti Jón þetta hús eða þetta hús?
 bought Jón *þetta* house and *þetta* house
 'Did Jón this house and that house?'
 - Hann keypti þetta hús en hann keypti ekki þetta hús.
 he bought *þetta* house but he bought not *þetta* house
 'He bought this house but he didn't buy that house.'

It is necessary to point to relevant houses for the sentences to be fine (Halldór Sigurðsson, p.c.).

argument-focus (38f), contrastive topic (38g), and contrastive argument-focus (38h); a definite moves/can move in verb-focus (38c) and contrastive verb-focus (38d); the situation in argument topic (38e) is not clear.

I summarize (in-)applicability of Icelandic OS below:

(39) Applicability of OS (Icelandic):

Pronouns:

Applicable: All

Inapplicable: None

Indefinite NPs:

Applicable: None

Inapplicable: All

Definite NPs:

Applicable: verb-focus

contrastive verb-focus

Inapplicable¹⁷: sentence-focus
 predicate-focus
 argument-focus
 contr. topic
 contr. argument-focus

4.3 Consideration of the results of the investigations

I would like to consider the results of the investigations. As stated in Section 2.1, it has widely been assumed concerning a semantic effect of OS that an object moves when it is old information and presupposed in the discourse, whereas an object remains in situ when it is new to the discourse and/or carries the focus (the Mapping Hypothesis, Diesing 1992, 1997; Holmberg 1999, Broekhuis 2001, Chomsky 2001, Erteschik-Shir 2005). I suggested that the following two are predicted from the Mapping Hypothesis: i) an object (pronoun) that is new and receives an unexpected information could not move; and ii) an object (pronoun) that is familiar and presupposed in the discourse would not remain in situ.

Concerning Swedish OS, though prediction (i) applies to argument-focus (34f) and contrastive argument-focus (34h), in which an object that is assigned the focus does not move, it does not apply to sentence-focus (34a) and predicate-focus (34b). A shifted object constitutes part of new information in sentence-focus and predicate-focus. Since an object should not be familiar in those information structures, it could not move, contrary to fact. Though prediction (ii) applies to verb-focus (34c), contrastive verb-focus (34d), and argument-topic (34e), in which an object that is defocused/not new to the discourse moves, it does not appear to apply to contrastive topic (34g). It might be claimed that an object in contrastive topic that is already presented in a question can acquire an unexpected information in an answer. From arguments that contrastive topic denotes members of an already given set (Jackendoff 1972, Arregi 2000), it seems to me difficult to argue that an object in contrastive topic acquires a novel information. Thus, an object that should be familiar in the discourse

¹⁷ Though the situation in argument topic is not clear.

would not remain in situ, contrary to fact.¹⁸ Namely, the investigation shows that Swedish OS can apply both when a pronominal object is defocused/not new to the discourse (verb-focus, contrastive verb-focus, and argument-topic) and when it constitutes part of the focus (sentence-focus and predicate-focus); the investigation also shows that OS is prevented/may not occur both when an object pronoun carries the focus (argument-focus and contrastive argument-focus) and when it should not be new to the discourse (contrastive topic).

Turning to Icelandic OS, two generalizations can be seen from the results of the investigation: a) pronominal OS is almost obligatory in any information structures; and b) full NP shift is in fact limited to only a few cases (i.e. definite NP shift in (contrastive) verb-focus). Prediction (i) does not apply to sentence-focus (36a), predicate-focus (36b), argument-focus (36f), and contrastive argument-focus (36h) of pronominal OS, in which a shifted object pronoun is focused or is part of new information; this prediction does not make sense for indefinite NP OS, since an indefinite NP cannot move in any information structures. Prediction (ii) does not apply to verb-focus (37c), contrastive verb-focus (37d), argument-topic (37e), and contrastive topic (37g) of indefinite NP shift, in which an object presupposed in the discourse does not move; this prediction does not make sense for pronominal OS, since a pronominal object is required to move in almost all information structures. It would be only for definite NP shift for which the Mapping Hypothesis would appear to make right predictions: prediction (i) would appear to apply to sentence-focus (38a), predicate-focus (38b), argument-focus (38f), and contrastive argument-focus (38h), in which an unshifted object carries the focus or is part of new information; prediction (ii) would also appear to apply to verb-focus (38c), contrastive verb-focus (38d), in which a moved object is presupposed in the discourse. Still, prediction (ii) does not appear to apply to contrastive topic (38g) for the same reason as I stated above. All in all, it would be a great surprise to learn that there are so few cases in which full NP shift can take place, based on the Mapping Hypothesis.

From the results of the investigations and these arguments, I would like to claim that a semantic effect of OS is not so simple as claimed by the Mapping Hypothesis.

In Section 2.2 I introduced the derivational mechanism proposed by Chomsky (2001). The core idea is that only when an object rejects the interpretation that it should receive in the first Merge position does OS apply. I predicted from that mechanism that the case illustrated below would not exist in which an object receives the interpretation Int', which it should not reject to receive in the first Merge position, in v*'s EPP position:

$$(40) * \dots \text{Neg} [_{v^*P} \text{Obj} [_{v^*P} [_{VP} V \text{Obj}]]] \quad (=23)$$

↑Int'

Specifically, I suggested that the case in which an object that is assigned Int' appears crossing

¹⁸ Note, in addition, that in verb-focus (34c) and contrastive verb-focus (34d), a defocused object may remain in situ, which is another counterargument against prediction ii). It seems to be difficult to account for optional aspects of Swedish OS under the Mapping Hypothesis.

over Neg with application of Disl would not be present. Concerning Swedish OS, this prediction does not apply to sentence-focus (34a) and predicate-focus (34b). An object in these information structures carries part of the focus interpretation. An object should not reject to receive this interpretation in situ, since it can freely be assigned that interpretation in the original position. Concerning Icelandic OS, though this prediction appears to apply to full NP shift, it does not apply to sentence-focus (36a), predicate-focus (36b), argument-focus (36f), and contrastive argument-focus (36h) of pronominal OS. An object in these information structures either is part of new information (i.e. sentence-focus and predicate-focus), or carries the focus (i.e. argument-focus and contrastive argument-focus). Since an object should not reject to receive this interpretation in situ, it should not move in these information structures, contrary to fact.

From these arguments, I would like to argue that derivational mechanisms that (tacitly) assume the Mapping Hypothesis make a wrong prediction.

5. Facts relevant to Object Shift

5.1 Long Object Shift

It is pointed out that an object may sometimes move crossing a subject (e.g. Holmberg 1986, 1999, Hellan and Platzack 1999, Josefsson 1999). This Long OS can apply to both reflexives and object pronouns^{19,20}:

- (41) a. I går kammade sig Erik inte på hela dagen.
 yesterday combed self Erik not on whole day-the
 ‘Yesterday Erik didn’t comb his hair for the whole day.’
 (Hellan and Platzack 1999:132,(25a))
- b. På stationen mötte henne hela släkten med blommor och presenter.
 at the-station met her whole family-the with flowers and gifts.
 ‘At the station the whole family met her with flowers and gifts.’
 (Hellan and Platzack 1999:132,(25c))

¹⁹ Hellan and Platzack (1999:132-133) state that Long OS is possible when a pronoun has an object form distinct from a subject form:

- i) Nu befallde (*dom) rånaren (^{OK}dom) att vara tysta.
 now ordered them the-thief them to be silent
 ‘Now the thief ordered them to be silent.’
- ii) Nu befallde (^{OK}oss) rånaren (^{OK}oss) att vara tysta.
 now ordered us the-thief us to be silent
 ‘Now the thief ordered us to be silent.’
 (Hellan and Platzack 1999:133,(26-27))

Dom (3pl) has only that form, which makes Long OS impossible (i), whereas an Acc *oss* has a distinct Nom form *vi* ‘we’, which allows Long OS (ii). I leave aside the issue on Case marking here.

²⁰ I turn to the reflexives more in detail in the next section.

A reflexive *sig* moves crossing both a subject *Erik* and the sentential negation *inte* (41a). An object pronoun *henne* moves crossing a subject *hela släkten* (41b).

I investigate in which information structures below (41b) can be an appropriate answer:

- (42) a. What happened (at the station)?
- b. What did the whole family do (at the station)?
- c. What did the whole family do regarding her (at the station)?
- d. Did the whole family say good-bye to her (at the station)?
- e. What's up with her (at the station)?
- f. *Whom did the whole family meet (at the station)?
- g. *Did the whole family meet her and her husband (at the station)?²¹
- h. *Did the whole family meet her husband (at the station)?

(41b) is an appropriate answer to a question of sentence-focus (42a), predicate-focus (42b), verb-focus (42c), contrastive verb-focus (42d), and argument-topic (42e), whereas it is not appropriate as an answer to a question of argument-focus (42f), contrastive topic (42g), and contrastive argument-focus (42h). This result is the same as the above mentioned result of Swedish OS.

Note that (41b) can be an appropriate answer to the following questions:

- (43) a. Who met her (at the station)?
- b. Did her husband meet her (at the station)?

(43a) is a question of argument-focus of a subject; when a question (43b) is asked, (41b) makes an answer in which a subject is contrastively focused. It appears to me that Long OS is a subject focus construction, as suggested by Josefsson (1999:750): 'weak object pronouns in [a postverbal position as in (41b)] require a full DP subject or a heavily stressed pronominal subject'.

5.2 Reflexives

It is pointed out that monosyllabic reflexives (44a) do, but disyllabic reflexives (44b) do not, move in the Scandinavian languages (e.g. Erteschik-Shir 2001).

- (44) a. Han så (^{OK}sig) ikke (*sig) i spejlet.
 he saw self not self in the-mirror
 'He didn't see himself in the mirror.'

²¹ The intended meaning of (41b) as an answer for (42g) is 'the whole family met HER, but not her HUSBAND'.

- b. *Han så (*sigselv) ikke (^{OK}sigselv) i spejlet.
 he saw himself not himself in the-mirror
 ‘He didn’t see himself in the mirror.’
 (Erteschik-Shir 2001:53,(5))

Use of *sig/sigselv* is not idiomatic: when available, their alternation appears to be always possible (Anders Holmberg, p.c.).

Let us investigate the environments in which a short reflexive and a long reflexive appear based on information structure. Imagine a situation in which Mary met a terrible accident, and her face has severely been damaged²²:

- (45) a. Sentence-focus:

What’s up?

– [_{Foc} She always sees herself in the mirror] (as if she confirmed the damage).

- i) Hon ser sej altid i spegeln.

she sees self always in the mirror

- ii) ?Hon ser altid sej i spegeln.²³

- iii) Hon ser altid sej själv i spegeln.²⁴

she sees always herself in the mirror

- b. Predicate-focus:

What does Mary do every day? – She always [_{Foc} sees herself in the mirror].

- i) Hon ser sej altid i spegeln.

she sees self always in the mirror

- ii) ?Hon ser altid sej i spegeln.

- iii) Hon ser altid sej själv i spegeln.²⁵

she saw always herself in the-mirror

- c. Verb-focus:

What does Mary do to herself every day?

– She always [_{Foc} sees] herself in the mirror (as if she confirmed the damage).

²² I present firstly data of monosyllabic reflexives with and without their movement, and next data of disyllabic reflexives. In verb-focus and contrastive verb-focus, I present data of Verb-Fronting too. It is presupposed that the question form of (45ciii) is ‘what has Mary done to herself?’, and that of (45diii) ‘has Mary seen herself?’. It is not possible to isolate a weak reflexive as a topicalization reading, since it is not a referential item (Anders Holmberg, p.c.). I exclude the case of argument-topic here.

²³ The Adv-*sej* order appears to be generally marginal (Anders Holmberg, p.c.).

²⁴ *Se sej själv i spegeln* appears to mean that she sees herself incidentally in the mirror (e.g. ‘when she walks through the hall’). It cannot mean that she looks at herself in the mirror. With the ‘incidentally’ meaning, this is acceptable (Anders Holmberg, p.c.).

²⁵ The same as footnote 24.

- i) Hon ser sej alltid i spegeln.
she sees self always in the mirror
- ii) ?Hon ser alltid sej i spegeln.
- iii) *Sett har hon sej alltid i spegeln.
seen has she self always in the mirror
- iv) *Hon ser alltid sej själv i spegeln.²⁶
she sees always herself in the mirror

d. Contrastive verb-focus:

Did Mary see herself? – She didn't [_{Foc} SEE] herself (, but [_{Foc} HEARD] about herself).

- i) Hon såg sej inte.
she saw self not
- ii) Hon såg inte sej.
- iii) Sett har hon sej inte.
seen has she self not
- iv) Hon såg inte sej själv.
she saw not herself

e. Argument-focus:

What does Mary see every day? – She always sees [_{Foc} herself] in the mirror.

- i) *Hon ser sej alltid i spegeln.
she sees self always in the mirror
- ii) Hon ser alltid *sej/?SEJ i spegeln.²⁷
- iii) Hon ser alltid sej själv i spegeln.
she saw always herself in the-mirror

f. Contrastive topic:

Did Mary see not only the shadow of her face but also herself?
– (She saw [_{Top} the SHADOW of her face], but) she didn't see [_{Top} HERSELF].

- i) *Hon såg sej inte.
she saw self not
- ii) Hon såg inte *sej/SEJ.²⁸
- iii) Hon såg inte sej själv.
she saw not herself

g. Contrastive argument-focus:

Did Mary see herself?
– She didn't see [_{Foc} HERSELF] (, but just saw [_{Foc} the SHADOW of her face]).

²⁶ This is unacceptable since the 'incidental reading' is unlikely here (Anders Holmberg, p.c.).

²⁷ Focusing the short reflexive is marginal (Anders Holmberg, p.c.).

²⁸ Though the monosyllabic reflexive can be stressed in situ, the primary accent may fall on the main verb (Anders Holmberg, p.c.).

- i) *Hon såg sej inte.
she saw self not
- ii) Hon såg inte *sej/*?SEJ.
- iii) Hon såg inte sej själv.²⁹
she saw not herself

A disyllabic reflexive can be used in all the information structures above.³⁰ A monosyllabic reflexive moves in sentence-focus (45a), predicate-focus (45b), verb-focus (45c), and contrastive verb-focus (45d), whereas it cannot move or cannot be used in argument-focus (45e), contrastive topic (45f), and contrastive argument-focus (45g). It seems to me that (in-)applicability of short reflexive movement follows that of pronominal OS: a short reflexive can move in the same environments in which an object pronoun can be shifted too.

5.3 Movement of pronominal adverbials

Though an argument place adverbial cannot shift in the Scandinavian languages, it may move when it is a pronominal form (e.g. Hellan and Platzack 1999, Josefsson 1999):

- (46) a. För tre år sedan bodde han (*i London) inte (^{OK}i London).
for three years since lived he in London not in London
'Three years ago he did not live in London.'
(Hellan and Platzack 1999:129,(16), slightly modified)
- b. För tre år sedan bodde han där inte.
for three years since lived he there not
'Three years ago he didn't live there.'
(Hellan and Platzack 1999:129,(17a))

A phrasal adverb cannot move (46a), whereas a pronominal adverbial *där* moves crossing the sentential adverb *inte* (46b).

Let us see the environments in which movement of pronominal adverbials can occur³¹:

- (47) a. Sentence-focus:
What's the matter? – [_{Foc} John always sleeps here]. (A lazy guy!)
 - i) Jan sover (*)här alltid.
Jan sleeps here always
 - ii) Jan sover alltid här.

²⁹ Use of the disyllabic reflexive is the only way to make a reflexive contrastive (Anders Holmberg, p.c.).

³⁰ Though the situation is a little bit unclear in verb-focus.

³¹ There is dialectal variation in whether locative proforms can shift (Anders Holmberg, p.c.). It is presupposed that the question form of (47cii) is 'what has John always done here?', and that of (47diii) 'has John lived here?'.

- b. Predicate-focus:
 What did John always do? – He always [_{Foc} slept here].
 i) ??Han sov här alltid.
 he slept here always
 ii) Han sov alltid här.
- c. Verb-focus:
 What did John always do here? – He always [_{Foc} slept] here.
 i) ?Han sov här alltid.
 he slept here always
 ii) Han sov alltid här.
 iii) ??Sovit har han här alltid.³²
 slept has he here always
- d. Contrastive verb-focus:
 Did John live here? – He didn't [_{Foc} LIVE] here (, but only [_{Foc} CAME] here).
 i) Han bodde (*)här inte.
 he lived here not
 ii) Han bodde inte här.
 iii) Bott har han här inte.
 lived has he here not
- e. Argument-topic:
 What happens here? – [_{Top} Here], John always sleeps/John always sleeps here.
 i) Jan sover (*)här alltid.
 Jan sleeps here always
 ii) Jan sover alltid här.
- f. Argument-focus:
 Where did John sleep? – He always slept [_{Foc} here].
 i) *Han sov här alltid.
 he slept here always
 ii) Han sov alltid *här/HÄR.
- g. Contrastive topic:
 Did John live here and there? – He didn't live [_{Top} HERE] (, but lived [_{Top} THERE]).

³² Cf.:

i) ?Sovit har han alltid här.
 slept has he always here

- i) *Han bodde här inte.
he lived here not
- ii) Han bodde inte *här/HÄR.

h. Contrastive argument-focus:

Did John live here? – He didn't live [_{Foc} HERE] (, but lived [_{Foc} THERE]).

- i) *Han bodde här inte.
he lived here not
- ii) Han bodde inte *här/HÄR.

Despite dialectal variation in availability of locative proform shift, it appears that an adverbial pronoun *här* must stay in situ in argument-focus (47f), contrastive topic (47g) and contrastive argument-focus (47h).

5.4 Expletives/quasi-arguments

Hereafter, I mention apparently problematic cases concerning OS. It is pointed out that an expletive and a quasi-argument in a small clause move in the Scandinavian languages (e.g. Holmberg 1999, Erteschik-Shir 2005):

- (48) a. Han tar det mycket sällan [_{SC} ~~det~~ lugnt].
he takes it very seldom easy.
'He very seldom takes it easy.'
(Holmberg 1999:23,(50))

- b. Jeg hørte det ikke [_{SC} ~~det~~ regne].
I heard it not rain
'I didn't hear it rain.'
(Erteschik-Shir 2005:62,(29))

A pleonastic *det* above moves crossing adverbials. An expletive itself does not affect meaning of a sentence. It seems to be difficult to investigate the information structure of the sentence that contains an expletive in a small clause.

5.5 Adverbial intermingling (+ Long Object Shift)

It is pointed out that when there are several sentence adverbials, an object pronoun moves to a position higher than the highest adverb in all the Scandinavian languages except Swedish; only in Swedish may an object pronoun be located between adverbials (adverbial intermingling)³³:

³³ The issue has long been discussed, associated with the fact that a moved object pronoun may not always be

(49) I går läste han (^{OK}dem) ju (^{OK}dem) alltså (^{OK}dem) troligen (^{OK}dem) inte (^{OK}dem).
 yesterday read he them indeed them thus them probably them not them
 ‘Yesterday he probably did not read them, you know.’
 (Hellan and Platzack 1999:130,(20))

In the Scandinavian languages other than Swedish, an object pronoun *dem* can only occupy the leftmost position; in Swedish, it can occupy any position indicated above.

It is also pointed out that adverbial intermingling may be combined with Long OS:

(50) Nu manar (^{OK}oss) ju (^{OK}oss) inte längre (^{OK}oss) någon myndighet att äta mer bröd.
 now urges us as-you-know us not longer us any authority to eat more bread
 ‘We are no longer urged by any authority to eat six to eight slices of bread per day.’
 (Holmberg and Platzack 1995:156-157,(6.31))

An object pronoun *oss* can occupy any position above. As a subject *någon myndighet* is a negative polarity item, it must be located to the right of the negation *inte längre*. Thus, an object *oss* should move crossing not only the subject but one or more adverbials, as suggested by Vogel (2004:10).

It is predicted from the investigations so far that adverbial intermingling both with and without Long OS would not occur especially in contrastive contexts. I show the cases of contrastive focus:

- (51) a. I heard he didn’t read those books yesterday.
 – Yesterday he probably didn’t read THEM (, not THOSE), you know.
 I går läste han (^{OK}dem) ju (^{OK}dem) alltså (^{OK}dem) troligen (^{OK}dem) inte (^{OK}dem).
- b. I heard you are urged to eat more bread.
 – WE are no longer urged by any authority to eat more bread, you know (, but THEY may be).
 Nu manar (^{OK}oss) ju (^{OK}oss) inte längre (^{OK}oss) någon myndighet att äta mer bröd.

As illustrated above, the prediction is not tenable: an object pronoun can occupy any position indicated above for both cases. As Anders Holmberg (p.c.) suggests, it appears that adverbials can receive emphasis and prominence depending on the contexts or a speaker’s intention.

5.6 OS in *yes-no* question

We saw in 5.1. that an object may cross a subject (i.e. Long OS):

adjacent to a main verb (e.g. Holmberg and Platzack 1995, Hellan and Platzack 1999). I leave aside the issue on adjacency here.

- (52) På stationen mötte henne hela släkten med blommor och presenter. (=41b)
 at the-station met her whole family-the with flowers and gifts.
 ‘At the station the whole family met her with flowers and gifts.’
 (Hellan and Platzack 1999:132,(25c))

It is pointed out, however, that an object is normally not allowed to cross a subject in *yes-no* questions:

- (53) Köpte (*den) Johan (^{OK}den) inte (^{OK}den)?
 bought it Johan it not it
 ‘Didn’t Johan buy it?’
 (Holmberg 1986:170,(17-18))

According to Vilkuna (1995), *yes-no* question is polarity-focus of a main verb. It appears that the construction in which an object crosses a subject in (53) (i.e. ‘köpte *den* Johan inte?’) cannot be used even as a question of contrastive verb-focus.³⁴

- (54) #Didn’t Johan BUY it? – He didn’t READ it.

5.7 Negative/Quantifier Movement and WH-Object Shift

In this section I mention two facts relevant to Icelandic OS. It has been suggested that negative phrases like *nothing* and *no + NP* are obligatorily located in the position which the negation occupies in Icelandic (Rögnvaldsson 1987, Svenonius 2000)³⁵:

³⁴ It is reported that a short reflexive (i), and even a pronominal object (ii), may move in *yes-no* question:

- i) Slog (^{OK}sej) Sara (^{OK}sej)?
 hurt self Sara self
 ‘Did Sara hurt herself?’
 (Holmberg 1986:205,(138e-f))
 ii) Gav dej snuten körkortet tillbaka?
 gave you the cops the driving license back
 ‘Did the cops give you back your driving license?’
 (Holmberg 1986:236,(224d))

With the claim made in section 5.1. that Long OS is a subject focus construction, a subject *Sara* could be focused in (i). Not only a subject but a direct object *körkortet* and the sentence-final adverb *tillbaka* might be focused in (ii). I leave these possibilities aside here.

³⁵ Christensen (1986) states that these negative phrases are located in the negation position also in the other Scandinavian languages:

- i) Jon leser (^{OK}ingen romaner) ut (*ingen romaner). (Nor.)
 Jon reads no novels out no novels
 ‘Jon reads no novels.’
 (Christensen 1986:22,(9-10))

The form *not ... any NP* is used in a complex tense case; a form like (55b) is stylistically marked (Christensen 1986:33,ft.9):

- ii) %Jon har ingen romaner lest.
 Jon has no novels read
 ‘Jon has read no novels.’
 (Christensen 1986:28,(42))

- (55) a. Jón hefur (^{OK}ekkert) getað lesið (*ekkert).
 Jón has nothing could read nothing
 ‘Jón hasn’t been able to read anything.’
- b. Jón hefur (^{OK}engar bækur) lesið (*engar bækur).
 Jón has no books read no books
 ‘Jón hasn’t read any books.’
 (Rögnvaldsson 1987:6,(27,31))

It has also been suggested that quantifier phrases, if not all kinds, can move in Icelandic (Rögnvaldsson 1987, Svenonius 2000). Rögnvaldsson (1987:7) states that the more negative a quantifier is, the more easily it tends to precede a verb:

- (56) a. Jón hefur (^{OK}lítið/^{OK}dálítið/??mikið) getað lesið (*lítið/^{OK}dálítið/mikið).
 Jón has little a little much could read little a little much
 ‘Jón has been able to read little/a little/much.’
 (Rögnvaldsson 1987:6,(29-30))
- b. Jón hefur (fáar bækur/??einhverjar bækur) getað lesið (?fáar bækur/einhverjar bækur).
 Jón has few books some books could read few books some books
 ‘Jón has read few books/some books.’
 (Rögnvaldsson 1987:6,(32-33))

Though it is quite marked for a complex quantifier phrase like (56b) to move (57a), a bare quantifier like *margt* ‘many’, *sumt* ‘some’, and *fátt* ‘few’ appears to easily move (57b), especially in contrastive contexts like (57c) (Halldór Sigurðsson, p.c.).

- (57) a. *Hann hefur margar bækur lesið.
 he has many books read
- b. ?Hann hefur margt lesið.
 he has many read

iii) Jon har ikke lest noen romaner.
 Jon has not read any novels
 ‘Jon has not read any novels.’
 (Christensen 1986:24,(18))

An exception to obligatory placement of a negative phrase in the negation position is reported:

iv) Jón sagði (*ekkert) Sveini (^{OK}ekkert). (Ice.)
 Jón told nothing Sveinn nothing
 ‘Jón didn’t tell Sveinn anything.’
 (Rögnvaldsson 1987:9,(43c-d))

- c. Hann hefur MARGT lesið, en FÁTT lært.
 he has many read but few learned
 ‘He has read much, but learned few.’

Recall the contrast between pronominal OS and full NP shift in Icelandic: a pronoun, which is a bare form, moves (almost obligatorily), whereas a full NP, which is either bare or complex, may move only in a few cases.

I would like to mention another kind of movement that is observed only in Icelandic: *wh*-OS. In all the Scandinavian languages a *wh*-phrase moves to the sentence-initial position; a main verb is located at the second position; a subject follows the verb:

- (58) Ven kysste jag? (Swe.)
 who kissed I
 ‘Who did I kiss?’

In multiple *wh*-question, only one *wh*-phrase can move to the sentence-initial position:

- (59) a. Hver át hvað? (Ice.)
 who ate what
 ‘who ate what?’
 b. *Hver hvað át?
 who what ate

Only *hver* ‘who’ moves to the sentence-initial position, whereas *hvað* ‘what’ remains in situ (59a). It is not possible for both *hver* and *hvað* to simultaneously move to the sentence-initial position (59b).

Interestingly, only in Icelandic may a *wh*-object move to an intermediate position in multiple *wh*-question, whereas it must remain in situ in the other Scandinavian languages:

- (60) a. ?Hver át ekki hvað? (Ice.)
 who ate not what
 ‘Who didn’t eat what?’
 b. ?Hver át hvað ekki?
 who ate what not

- (61) a. Vem åt inte vad? (Swe.)
 who ate not what
 ‘Who didn’t eat what?’

- b. *Vem át vad inte?
 who ate what not

A *wh*-object in Icelandic remains in situ (60a); it may move to an intermediate position (60b). On the other hand, a *wh*-object must stay in situ in the other Scandinavian languages (61a-b).³⁶

It appears that with appropriate contexts given, not only bare *wh*-phrases but complex *wh*-phrases (i.e. *which*-phrases) may move in Icelandic (62), whereas this is not possible in the other Scandinavian languages (63).

- (62) a. ?Hver át ekki hvaða mat? (Ice.)
 who ate not which food
 ‘who didn’t eat which food?’

- b. ?Hver át hvaða mat ekki?
 who ate which food not

- (63) a. Vem át inte vilken mat? (Swe.)
 who ate not which food
 ‘who didn’t eat which food?’

- b. *Vem át vilken mat inte?
 who ate which food not

I turn to these facts later.

All in all, based on the investigation here, the following tendencies are observed in Icelandic OS: i) bare pronominal forms, including those of bare negatives/quantifiers and bare *wh*-pronouns, move obligatorily or optionally; and ii) full NP shift is quite marked and limited to only a few cases.

5.8 What is ‘full NP shift’ in Icelandic?

The investigations of Icelandic OS have showed that full NP shift is limited to only a few cases. In this section I would like to consider ‘what are called’ the cases in which full NP shift

³⁶ It appears to me that the fact of *wh*-OS makes a counterargument against Cyclic Linearization proposed by Fox and Pesetsky (2005). According to this system, the information that is coded in a lower phase must be maintained in a higher phase. It is claimed that a non-quantifier/non-*wh* object moves without dropping at the edge of VP in (normal) OS to keep ordering information V<O in a lower phase VP, whereas a quantifier moves dropping at the edge of VP as a *wh*-phrase moves to the sentence-initial position (i.e. O<V in a CP phase). Thus, a *wh*-object should drop at the edge of VP:

i) [_{CP} hver át hvað ekki [_{VP} hvað át hvað]] (=60b)

Ordering information at VP is O<V. After both a main verb and a *wh*-object move, ordering information at CP is V<O. Thus, contradiction between the linearization informations will arise.

takes place more in detail. OS must be accompanied by main verb movement; the environments in which a main verb moves, being a simple form, are either present tense or past tense. Recall Diesing's (1997) example in which an indefinite NP moves:

- (64) Ég LES bækur ekki ... (=11b)
 I read books not
 'I don't READ books (, but only BUY them).
 (Diesing 1997:412,(71d))

According to Diesing, an indefinite NP that is subject to existential closure remains in situ, but it may move when it receives specific interpretation. It is argued that meaning differs between a construction in which OS takes place and the one in which OS does not occur. See the relative scope of *seldom* and *the longest book* below:

- (65) a. Hann les sjaldan lengstu bókina.
 he reads seldom the-longest book
 b. Hann les lengstu bókina sjaldan.
 he reads the longest book seldom
 (Diesing 1997:418,(82))

The interpretation of (65a), in which OS does not occur, is that no matter which group of books he is shown, he rarely reads the longest one in that particular group. On the other hand, the interpretation of (65b), in which OS takes place, is that there is a book that is longer than any other books, and he rarely reads that book (Diesing 1997).

Note that in both cases generic reading is implied: no matter in which way length of a book is defined, it is his general attribute that he does not read that book. Halldór Sigurðsson (p.c.) suggests a very important fact. Icelandic simple present form usually receives either a generic or future reading (66a-b), whereas a special 'durative present' (*vera að* + infinitive) is used to express a present or progressive reading (67).

- (66) a. Jón les aldrei neinar bækur
 Jón reads never any books
 'Jón never reads any books.'
 b. Jón les þessa bók líklega aldrei/á morgun
 Jón reads this book probably never/on tomorrow
 'Jón will probably never read this book/Jón will probably read this book tomorrow.'

- (67) Jón er að lesa /#les bókina sem hann keypti í gær
 Jón is to read reads book that he bought in yesterday
 ‘Jón is reading the book that he bought yesterday.’
 (Halldór Sigurðsson, p.c.)

Importantly, Vikner (2001) suggests that in the cases in which OS cannot take place, the construction has both interpretations:

- (68) a. Í prófunum svarar hann sjaldan *erfiðustu spurningunni*.
 in the-exams answers he rarely the most difficult question
- b. Í prófunum svarar hann *erfiðustu spurningunni* sjaldan.
 in the-exams answers he the most difficult question rarely
- c. Í prófunum hefur hann sjaldan svarað *erfiðustu spurningunni*.
 in the-exams has he rarely answered most-difficult the-question
 (Vikner 2001:325-326,(17),(18a))

The interpretation of (68a) is like (65a): ‘regardless of which exam he is taking, he rarely answers whichever question happens to be the most difficult one in that particular exam’. The interpretation of (68b) is like (65b): ‘there is one particular question which is more difficult than all others ... and which appears in most or all exams, and when he encounters this question, he rarely answers it’. (68c), in which OS cannot take place since main verb movement does not occur because of presence of an Aux, has both those interpretations (Vikner 2001:325). Use of other tense forms instead of present tense removes generic reading.³⁷ Thus, what can be said from (68a-c) is that though Icelandic can express difference in scope by the same construction (i.e. without moving the object), Icelandic has to express the difference by moving the object only when generic reading is implied in present tense.

Let us see the case in which an indefinite NP moves once again:

- (69) Ég LES bækur ekki ...
 I read books not
 ‘I don’t READ books (, but only BUY them).

It is argued that an indefinite NP is subject to existential closure for the novel status; when it can move, an indefinite NP receives specific interpretation; thus, it is not subject to existential closure (Diesing 1997:412). In the case (69), however, a main verb is focused, which causes defocalization of an indefinite. It appears to me that movement of an indefinite NP is not primarily owed to specific interpretation of an indefinite, but due to focalization of a main verb, which invokes defocalization and specific interpretation of an indefinite. This applies to

³⁷ I thank Anders Holmberg for suggesting this to me (p.c.).

definite NP shift too: the information structures in which definite NP shift is observed are verb-focus and contrastive verb-focus, which I repeat below:

(70) a. Verb-focus:

What does John do to this house every day? – He always [_{Foc} paints] this house.

i) Hann málar þetta hús alltaf.

ii) *Hann málar alltaf þetta hús. (=38c)

b. Contrastive verb-focus:

Did John buy this house?

– No, he didn't [_{Foc} BUY] this house (, but [_{Foc} BORROWED] it).

i) Hann KEYPTI þetta hús ekki.

ii) Hann KEYPTI ekki þetta hús. (=38d)

It is reported that a definite NP may move in *yes-no* questions:

(71) Keypti Jón (^{OK}bókina) ekki (^{OK}bókina)?

bought Jón the-book not the-book

'Did Jón buy the book?'

(Holmberg 1986:208,(148a))

According to Vilkuna (1995), *yes-no* question is polarity-focus of a main verb. Note that a complex quantifier phrase can move in *yes-no* question:

(72) Hefur Jón (^{OK}einhverjar bækur) lesið (^{OK}einhverjar bækur) í ár?

has Jón any books read any books this year

'has Jón read any books this year?'

(Rögnvaldsson 1987:7,(34))

Further, recall the data of *wh-OS* in Icelandic:

(73) a. ?Hver át ekki hvað? (Ice.)

who ate not what

'Who didn't eat what?'

b. ?Hver át hvað ekki?

who ate what not

(74) a. ?Hver át ekki hvaða mat?

who ate not which food

'who didn't eat which food?'

- b. ?Hver át hvaða mat ekki?
 who ate which food not

Grohmann (2000) states that for multiple *wh*-question to be licit in German (and possibly Italian too), all *wh*-phrases must be given. According to Lambrecht (1994), however, a sentence must have the focus. If so, a main verb may carry the focus in multiple *wh*-question, whose detailed issues I leave for future research.

From these arguments, I would like to argue as follows: Icelandic full NP shift may be triggered only by either a property of Icelandic present tense that it normally receives generic reading, or focalization on a main verb. Those two factors will be correlated. Recall that generic reading can be distinguished from existential reading with different positions of the accent:

(75) a. FIREMEN are available. (=9a)

b. Firemen are AVAILABLE. (=9b)

Though the accent is located on a subject in existential reading in which there are firemen who are available at some point in time (75a), the accent is located on a predicate in generic reading in which firemen are available as their general attribute (75b) (Diesing 1992:50). It is not clear, however, whether those two factors can be unified into either of them. Focalization on a main verb comprises generic reading in some cases (69), but not in the others (70b,71-72). On the other hand, generic reading comprises focalization on a main verb in some cases (69), but not in the others (65a-b,68a-b).

In sum, the following tendencies are observed in Icelandic OS: i) bare pronominal forms, including those of bare negatives/quantifiers and bare *wh*-pronouns, move obligatorily or optionally; and ii) full NP shift is quite marked and limited to a few cases, being triggered only by either a property of Icelandic present tense that it normally receives generic reading or focalization on a main verb.^{38,39}

6. A possible account of pronominal Object Shift

I would like to propose a possible account of Swedish and Icelandic OS. Taking a standpoint that full NP shift in Icelandic is an exceptional case, I only discuss pronominal OS. I repeat the results of the investigation of Swedish and Icelandic OS and the summary of (in-)applicability of OS below:

³⁸ Obligatory placement of a negative phrase in the negation position, whether it is bare or complex, may be the exception to this claim. See also footnote 35. I leave aside the issues on *það* ('there')-construction here, as stated in footnote 3.

³⁹ Another issue on OS discussed in the literature is Double Object Construction (Holmberg and Platzack 1995). As stated by Holmberg and Platzack, verbs that take double objects behave differently among the Scandinavian languages. It seems to me necessary to deal with the entire aspects of ditransitive verbs to discuss Double Object Construction, which I leave for future research.

(76) Swedish OS:

a. Sentence-focus:

What's up? – [_{Foc} John always kisses me (in presence of others!).

i) Jan kysser mej alltid.

Jan kisses me always

ii) Jan kysser alltid mej.

b. Predicate-focus:

What did John always do? – He always [_{Foc} kissed me].

i) Han kysste mej alltid.

he kissed me always

ii) ?Han kysste alltid mej.

c. Verb-focus:

What did John always do to Mary? – He always [_{Foc} kissed] her.

i) Han kysste henne alltid.

he kissed her always

ii) Han kysste alltid henne.

iii) ?Kysst har han henne alltid.

kissed has he her always

d. Contrastive verb-focus:

Did you kiss Mary? – No, I didn't [_{Foc} KISS] her (, but [_{Foc} HELD] her tight).

i) Jag kysste henne inte.

I kissed her not

ii) Jag kysste inte henne.

iii) Kysst har jag henne inte.

kissed has I her not

e. Argument-topic:

What's wrong with you? – [_{Top} Me], Prof. Z. didn't recommend.

i) Prof. Z. rekommenderade mej inte.

Prof. Z. recommended me not

ii) Prof. Z. rekommenderade inte mej.

f. Argument-focus:

Who does John kiss every day? – He always kisses [_{Foc} her].

i) *Han kysser henne alltid.

he kisses her always

ii) Han kysser alltid *henne/HENNE.

g. Contrastive topic:

Did you kiss her and her sister?

– (I kissed [_{Top} her SISTER], but) I didn't kiss [_{Top} HER].

i) *Jag kysste henne inte.

I kissed her not

ii) Jag kysste inte *henne/HENNE.

h. Contrastive argument-focus:

Did you kiss Mary? – No, I didn't kiss [_{Foc} HER] (, but kissed [_{Foc} LUCY]).

i) *Jag kysste henne inte.

I kissed her not

ii) Jag kysste inte HENNE.

(77) Icelandic OS:

a. Sentence-focus:

What's up? – [_{Foc} John always kisses me (in presence of others!)].

i) Jón kyssir mig alltaf.

Jón kisses me always

ii) *Jón kyssir alltaf mig.

b. Predicate-focus:

What did John always do? – He always [_{Foc} kissed me].

i) Hann kyssti mig alltaf.

he kissed me always

ii) *Hann kyssti alltaf mig.

c. Verb-focus:

What did John always do to Mary? – He always [_{Foc} kissed] her.

i) Hann kyssti hana alltaf.

he kissed her always

ii) *Hann kyssti alltaf hana.

d. Contrastive verb-focus:

Did you kiss Mary? – No, I didn't [_{Foc} KISS] her (, but [_{Foc} HELD] her tight).

i) Ég KYSSTI hana ekki.

I kissed her not

ii) *Ég KYSSTI ekki hana.

e. Argument-topic:

What's up with you every day?

– [_{Top} Me], (well,) John always kisses/John always kisses me.

- i) Jón kyssir mig alltaf.
Jón kisses me always
- ii) *Jón kyssir alltaf mig.

f. Argument-focus:

Who does John kiss every day? – He always kisses [_{Foc} her].

- i) Hann kyssir hana/HANA alltaf.
he kisses her always
- ii) Hann kyssir alltaf *hana/??HANA.

g. Contrastive topic:

Did you kiss her and her sister?

– (I kissed [_{Top} her SISTER], but) I didn't kiss [_{Top} HER].

- i) ?Ég kyssti HANA ekki.
I kissed her not
- ii) ??Ég kyssti ekki HANA.

h. Contrastive argument-focus:

Did you kiss Mary? – No, I didn't kiss [_{Foc} HER] (, but kissed [_{Foc} LUCY]).

- i) Ég kyssti HANA ekki.
I kissed her not
- ii) ??Ég kyssti ekki HANA.

(78) Applicability of OS:

Swedish:

| | |
|----------------------------|------------------------------|
| Applicable: Sentence-focus | Inapplicable: Argument-focus |
| Predicate-focus | Contrastive topic |
| Verb-focus | Contrastive argument-focus |
| Contrastive verb-focus | |
| Argument-topic | |

Icelandic:

| | |
|-----------------|--------------------|
| Applicable: All | Inapplicable: None |
|-----------------|--------------------|

An obvious generalization from the data of Swedish OS would be to say that strong (i.e. stressed) pronouns must remain in situ, whereas weak (i.e. unstressed) pronouns can be shifted. I would like to point out several problems for accounts in terms of phonology. First, though this is applicable to Swedish, stressed pronouns can move in Icelandic, as illustrated by the data of Icelandic OS. It would be required to formulate a parameter that distinguishes Icelandic OS from Swedish OS for two items, presence/absence of weak pronoun shift and strong pronoun shift. This does not appear to me a desirable situation.

Second, the results here show that presence or absence of stress on an argument is not

always correlated with its interpretation. Under the traditional (reversed) Y-model, what one can ‘see’ in the semantic component and the phonological component is translation of a syntactic feature. Thus, a syntactic [focus] feature is translated into the focus interpretation at the former component, and the focus accent at the latter component (Culicover and Rochemont 1983). According to the investigation above, however, a shifted object pronoun can be part of new information even if it is unstressed, as illustrated in sentence-focus and predicate-focus; an object in situ may not be new to the discourse even if it is stressed, as illustrated in contrastive topic. This will be problematic on both sides of the semantic and phonological components under the traditional syntactic model.

Remarks are necessary for the system proposed by Neeleman and Reinhart (1998). In their system, different stress placement within a sentence plays the crucial role. The system, however, does not associate each derivation with an actual focus. Rather, the focus is selected in a set of possible foci, specifically IP that consists of a set of constituents that can serve as the focus in a given context. It is widely claimed that when an object receives the focus, the latter is projected. Thus, (79), in which an object is stressed, can be used as an answer for either object focus (80a), VP focus (80b), or IP focus (80c). The focus set of (79) is represented as (80d) (Neeleman and Reinhart 1998:333).

(79) John kissed MARY.

- (80) a. Who did John kiss?
b. What did John do?
c. What’s up?
d. Focus set: {IP, VP, Object}

It is also assumed i) that main stress falls on the most deeply embedded constituent, ii) that a DP is destressed only when it is D-linked, and iii) for economy, stress shifts only to derive foci not already in the focus set (Neeleman and Reinhart 1998:341-342).

I would like to point out several problems. According to this system, contrastive focus (of constituents other than a DP object) is distinguished from information focus that simply marks new information merely by stress shifting, which is a marked operation. Kiss (1998) claims that contrastive focus differs from information focus in that the former acts as an operator in syntax. This means that derivation of a contrastive focus construction differs from that of an information focus construction. Hence, it does not seem to me possible to distinguish them by stress assignment rules.

The case of an object pronoun is accounted for in the following way according to this system. Destressing operation always applies in the case of a pronominal object according to ii) above, which makes a verb stressed. Thus, Focus set is {IP, VP, V}, in which an object, being excluded from the set, cannot be the focus, though a verb can be. Only when a pronominal object exceptionally receives the focus, does stress shift operation apply, which makes an object pronoun the only focus (Neeleman and Reinhart 1998:339-341). A

pronominal object is always scrambled in Dutch when an adverb is present:

(81) a. #Ik heb gisteren hem GEZIEN.

I have yesterday him seen

b. Ik heb hem gisteren GEZIEN.

I have him yesterday seen

‘I have seen him yesterday.’

(Neeleman and Reinhart 1998:348,(97))

This fact is accounted for on the assumption that a scrambling order can be base-generated in the same way as a non-scrambling order: when an adverb is present, the way of derivation in which an adverb is generated before an object pronoun is selected to avoid destressing of the object pronoun, which is a marked operation (Neeleman and Reinhart 1998:348-349).

Let us apply this account to pronominal OS. First, though it would appear to work well for the Scandinavian languages and dialects in which an unstressed pronoun obligatorily moves, pronominal OS is in fact optional in Swedish and the other several varieties. Thus, for the latter group, it would be required to assume both the derivation in which a marked operation (i.e. destressing) applies to an unshifted pronominal object and the derivation in which a sentential adverbial is generated before an object pronoun. Second, accepting the latter way of derivation would lead to claim that a Scandinavian sentence adverbial can freely be generated before or after an object. As we saw in section 5.7, negative phrases almost obligatorily occupy the same position that the negation occupies in the Scandinavian languages (Christensen 1986, Rögnavaldsson 1987, Svenonius 2000). This means that at least the position in which the sentential negation is generated is fixed in the Scandinavian languages. Third, pronominal OS occurs when a main verb also moves, though scrambling can take place regardless of verb movement. Thus, though the facts of pronominal OS would appear to be well described, it is not clear how presence of pronominal OS is associated with that of main verb movement in this system. From all of these arguments, I avoid an account in terms of phonology.

I would like to turn to the results of the investigation here. I firstly consider the three kinds of information structure, argument-focus, contrastive argument-focus, and contrastive topic, in which Swedish OS is inapplicable. Kiss (1998) proposes distinction between argument-focus illustrated by (76f) and *contrastive* focus like (76h).⁴⁰ It is claimed that argument-focus simply marks non-presupposed information, and does not act as an operator; it is present in every sentence, and can appear everywhere in a sentence. It is argued, on the other hand, that contrastive focus overtly or covertly moves to the position from which it takes scope; it acts as a quantificational operator in syntax, binding a variable within its scope. Contrastive focus is defined as follows: it represents, and is identified as, an exhaustive subset

⁴⁰ Kiss refers to argument-focus as information focus, and contrastive focus as identificational focus. I call them argument-focus and contrastive focus respectively throughout this paper.

of the set of contextually or situationally given elements for which a predicate phrase can potentially hold (Kiss 1998:245). Büring (1997) suggests that contrastive focus is ‘used in corrections and contradictions’ (Büring 1997:179,ft.7), as illustrated in (76h). Kiss (1998) and Vilkuna (1995) claim that in contrastive focus the set for part of which exhaustive identification is made is contextually given; thus, *Mary* and *Lucy* in (76h) should already have appeared in the context according to them. It does not appear to me to be ensured that a correct alternative (i.e. *Lucy*) has already been presented in the previous context: the case holds also in the situation in which the first speaker believes that the addressee likes *Mary*, which indicates that before the former’s question (and the latter’s answer) the name *Lucy* may not have appeared in the previous context.

Contrastive topic, on the other hand, is observed in, for instance, an answer to a multiple *wh*-question. Imagine, as done in section 3, a situation in which Speaker A knows that Fred and Bill attended a party and asks Speaker B, who attended the party too:

(82) A: Who ate what?

B: [_{Top} Fred] ate [_{Foc} the BEANS], and [_{Top} Bill] ate [_{Foc} the POTATOES].

Implying a question *what did Fred eat, and what did Bill eat?* (Jackendoff 1972), a multiple *wh*-question makes a request to match the members of a contextually salient set (the set composed of *Fred* and *Bill*) with members of a different set (the set of foods). In an answer contrastive topic denotes each member of the salient set (*Fred* and *Bill*), whereas the focus denotes a member of the latter set (*the beans* and *the potatoes*). Then, the context needs to provide the salient set for contrastive topic, as suggested by Arregi (2000:2). Kiss (1998) claims that contrastive topic is non-exhaustive, whereas contrastive focus is exhaustive. In an answer to multiple *wh*-question (82), it is requested to match each member of the already given, contextually salient set (i.e. *Fred* and *Bill*) with a member of a contextually new set (i.e. *the beans* and *the potatoes*). In that sense, it seems to me that the members of a given set are required to be exhaustively identified in contrastive topic.

Therefore, I would like to make a distinction between contrastive focus and contrastive topic as follows: contrastive focus negates old information and exhaustively identifies a member of the set that is not necessarily required to appear in the previous context, whereas contrastive topic exhaustively identifies a member of the set that is required to be already present in the previous context.

I would like to consider argument-focus more. Kiss (1998) claims that contrastive focus that is exhaustive can be non-contrastive, which results in being equivalent to argument-focus⁴¹:

⁴¹ This appears also in difference in positions that focused arguments occupy. Kiss (1998) states that a *wh*-phrase is ordinarily located in the preverbal position reserved for contrastive focus in Hungarian (i); *wh*-question can be answered either by contrastive focus (ii), or, though less common, by argument-focus (iii), depending on the degree of exhaustiveness.

i) Hol jártál a nyáron?
 where went-2sg. the summer-in
 ‘Where did you go in the summer?’

- (83) a. Ki írta a Háború és békét?
 who wrote the War and Peace
 ‘Who wrote *War and Peace*?’
- b. A Háború és békét TOLSZTOJ írta.
 the War and Peace-ACC Tolstoy wrote
 ‘It was TOLSTOY who wrote *War and Peace*.’
 (Kiss 1998:268,(67))

It is claimed that identification of the focus in (83) operates on an open set of writers; identification of a subset of the set for which a predicate holds does not delineate a complementary subset (Kiss 1998:267-268). It does not seem to me appropriate to say that identification of argument-focus does not delineate a complementary subset. When one substitutes *Wordsworth*, or any other writer, for *Tolstoy* in the answer (83b), the former does not match the predicate [wrote War and Peace] with the actual fact taken into account. In that sense, it seems that argument-focus identifies a subset of the set for which a predicate holds, delineating a complementary subset that consists of any other member (of an open set), in the same way as contrastive argument-focus and contrastive topic.

A question arises what difference there is between argument-focus, contrastive argument-focus, and contrastive topic. As for the former two, I claim both of the followings simultaneously: i) identification of argument-focus operates on an open set, and argument-focus identifies a subset delineating a complementary subset, and ii) contrastive argument-focus identifies a member of the set that is not necessarily required to appear in the previous context. Recall that contrastive focus is required to negate old information. I would like to argue that both argument-focus and contrastive argument-focus identify a member of the set that does not need to appear in the previous context and their identification operation delineates a complementary subset, and that difference between them lies in presence or absence of old information that should be negated. Namely, as it is presupposed in contrastive argument-focus that there is an old information to be denied, a negated old information cannot be among choices in identification of contrastive argument-focus; the choices are limited to (new) information excluding the old information. In argument-focus, on the other hand, there is no information that should be denied; thus, any informations are new and choices can be made among them in identification of argument-focus. Turning to the difference between contrastive argument-focus and contrastive topic, I argued that contrastive focus negates old information and identifies a member of the set that does not necessarily appear in the previous context, whereas contrastive topic identifies a member of the set that is required to appear in

-
- ii) OLASZORSZÁGBAN jártam.
 Italy-to went-1sg.
 ‘It was ITALY where I went.’
- iii) Jártam OLASZORSZÁGBAN.
 went-1sg. Italy-to
 ‘I went to ITALY.’
 (Kiss 1998:249-250,(11))

the previous context. I claim that this means that exhaustive identification of contrastive focus operates on both a set whose only member is an old information to be negated and a set consisting of new information, whereas that of contrastive topic is made for a set composed only of old information. I illustrate three kinds of information structure as below:

(84)

| | old | new |
|------------------|-----------|-----------|
| argument-focus | --- | a,b,c,... |
| contr.arg.-focus | a | b,c,... |
| contr. topic | a,b,c,... | --- |

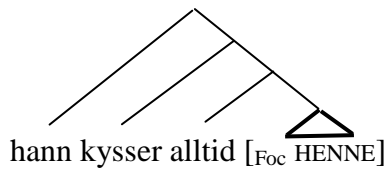
Exhaustive identification operates on a subset of the set consisting only of new information in argument-focus; the latter does not have a set consisting of old information for which identification is made. In contrastive argument-focus, exhaustive identification firstly operates on a set which consists only of an old information to be denied; identification is secondly made for a subset of the set consisting of new information excluding the old one. Exhaustive identification operates on a subset of the set composed only of old information in contrastive topic; the latter does not have a set consisting of new information which identification operates on.⁴²

The discussions so far have been made for the information structures that apply to arguments. What about the other kinds of information structure, sentence-focus (76a), predicate-focus (76b), and (contrastive) verb-focus (76c-d)? Specifically, can exhaustive identification operate on propositions, predicates, and events? It seems to me that the answer is affirmative, with the actual fact and/or a speaker's intention taken into account in each case. Substitution of, say, *I could not pass the exam* for *John kissed me yesterday* in (76a) will not match the proposition intended by the second speaker. The same applies to the other cases: substitution of *hit me* for *kissed me* in (76b) will not match the event predicate intended by a speaker, and so forth. Therefore, I would like to claim that focus, in general, exhaustively identifies a subset (of propositions, and so forth), delineating a complementary subset.

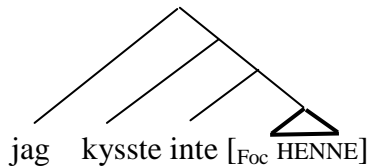
From these arguments, I would like to present a possible account of OS. I firstly consider argument-focus, contrastive argument-focus, and contrastive topic, in which Swedish OS does not apply. What the three information structures share is that exhaustive identification is made for a subset of the set that consists of some kinds of information, old or new. See relevant structures (76f, g, h) once again:

⁴² Recall the fact that only object pronouns in argument-focus, contrastive argument-focus, and contrastive topic, but not those in the other kinds of information structure, are assigned the stress. Based on the argument here, what object pronouns in the former three information structures share is the property that they are exhaustively identified. It can be possible that prosodic prominence on object pronouns is related to neither focus nor contrastiveness, but exhaustive identification.

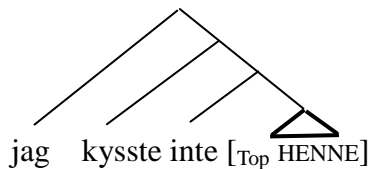
(85) a. Argument-focus: Han kysser altid [_{Foc} HENNE].



b. Contrastive argument-focus: Jag kysste inte [_{Foc} HENNE].



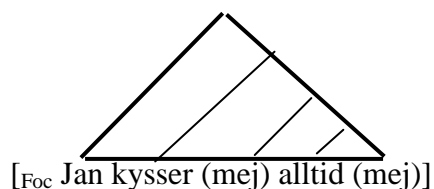
c. Contrastive topic: Jag kysste inte [_{Top} HENNE].



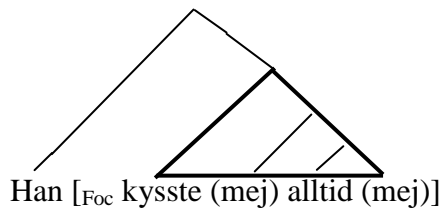
Let us assume that syntax has a domain that corresponds to a subset of the set which exhaustive identification operates on, namely the boldface triangle domain that a pronominal object occupies above, [_{Foc} HENNE] in (85a-b) and [_{Top} HENNE] in (85c) respectively. I call this syntactic domain the *exhaustive identification domain* (EID). I take the EID to be not only a syntactic domain but the domain which semantic/information-structural properties are reflected on. The fact is that a pronominal object is prevented from moving out of the EID in these information structures.

I secondly consider sentence-focus and predicate-focus (76a-b), in which OS is applicable and a shifted pronominal object is contained in the focus:

(86) a. Sentence-focus: [_{Foc} Jan kysser (^{OK}mej) alltid (^{OK}mej)].



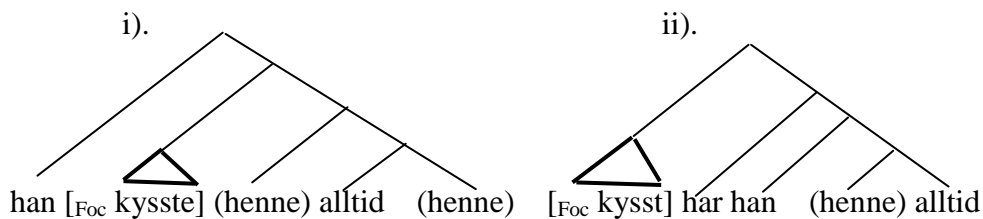
- b. Predicate-focus: Han [_{Foc} kysste (^{OK}mej) alltid (^{OK}mej)].⁴³



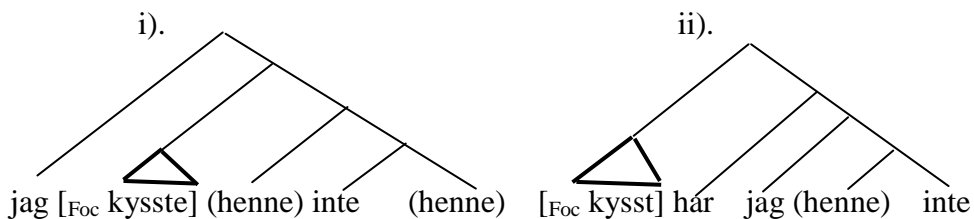
Based on the arguments so far, I assume that a subset of the set for which exhaustive identification is made corresponds to the syntactic domains of an entire sentence (86a) and a predicate (86b) respectively: they are the EIDs. It can be said from these information structures that when a pronominal object is contained in the EID, it can appear anywhere inside it.

Finally, I would like to turn to verb-focus (76c), contrastive verb-focus (76d), and argument topic (76e), in which OS is applicable and a shifted pronominal object is not contained in the focus:

- (87) a. Verb-focus: i) Han [_{Foc} kysste] (^{OK}henne) alltid (^{OK}henne).
 ii) [_{Foc} Kysst] har han (^{OK}henne) alltid.

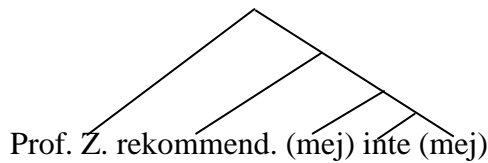


- b. Contrastive verb-focus: i) Jag [_{Foc} kysste] (^{OK}henne) inte (^{OK}henne).
 ii) [_{Foc} Kysst] har jag (^{OK}henne) inte.



⁴³ Since an adverbial *alltid* has already appeared in a question, it might not make a part of the focus domain. In a syntactic tree a VP adverb is required to be contained in an entire VP to make the latter a constituent; thus, I include the adverbial in the focus domain here.

- c. Argument topic: Prof. Z. rekommenderade (^{OK}mej) inte (^{OK}mej).



Here too, I assume that the syntactic domains of a main verb and a participial in (87a-b) are the EIDs, which correspond to subsets of the sets that exhaustive identification operates on. It can be said from these two information structures that when a pronominal object is not contained in the EID, it can appear anywhere outside it. In argument topic, any sentential component in a sentence except the topicalized argument can be focused; thus, the topic argument is outside the EID. I claim that the same argument made for (87a-b) applies to (87c).

From all of what has been said above, I would like to propose to formulate (in-)applicability of Swedish OS with the EID as follows:

(88) *Exhaustive identification domain (EID):*

The syntactic domain which corresponds to a subset of the set which exhaustive identification operates on.

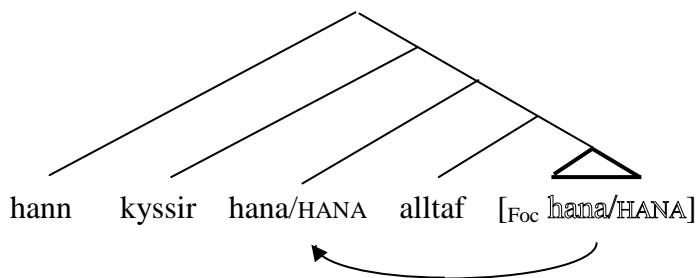
(89) A pronominal object can appear anywhere either inside or outside the EID, but cannot cross an EID boundary.

(88) is the definition of the EID: exhaustive identification is made for a subset of the set that consists of some kinds of information, old or new; (88) states that syntax has a domain that corresponds to the subset. (89) states i) that a pronominal object inside the EID can appear anywhere inside it as long as it stays inside the EID, ii) that a pronominal object outside the EID can appear anywhere outside it as long as it is excluded from the EID, iii) that a pronominal object inside the EID cannot move out of it, and iv) that a pronominal object outside the EID cannot move towards into it. Thus, in argument-focus, contrastive argument-focus, and contrastive topic, in which the EID consists of an object pronoun only, the latter can stay in and only inside the EID; it cannot move out of the EID. In sentence-focus and predicate-focus, the EID consists of either a sentence or a predicate, both of which contain an object pronoun; thus, a pronominal object can appear anywhere in the EID, as long as it stays inside the EID; in addition, it does not move out of the EID. In verb-focus, contrastive verb-focus, and argument topic, a pronominal object is excluded from the EID; thus, a pronominal object can appear anywhere outside the EID, as long as it is excluded from the EID; in addition, it does not move towards into the EID.

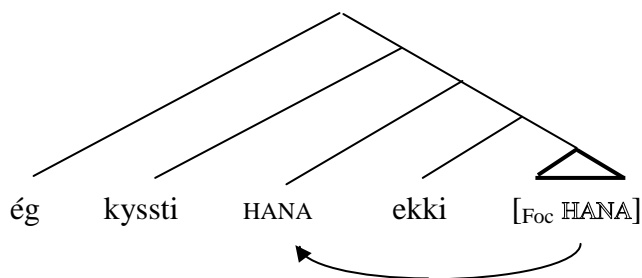
I turn to Icelandic OS (77a-h). The results of the investigation show that pronominal OS is mostly obligatory in any kinds of information structures in Icelandic. Thus, the difference between Swedish OS and Icelandic OS is the first case above: a pronoun does not move in argument-focus, contrastive topic, and contrastive argument-focus, in Swedish, whereas it

moves in those information structures in Icelandic. I illustrate this as follows:

(90) a. Argument-focus: i) Hann kyssir [_{Foc} hana/HANA] alltaf. (=77f)



b. Contrastive topic/argument-focus: Ég kyssti [_{Foc} HANA] ekki. (=77g-h)



In Icelandic OS, a pronominal object moves from inside the EID. I interpret this as follows: a pronominal object may cross the EID.⁴⁴ I formulate Icelandic OS as follows:

(91) A pronominal object can appear anywhere either inside or outside the EID, and may cross an EID boundary.

Together with the formulation of Swedish OS (91), I claim that the parameter that distinguishes Icelandic OS from Swedish OS is that a pronominal object either may or cannot cross an EID boundary. I formulate this parameter as follows:

(92) Object Shift Parameter:

A pronominal object may (Icelandic) or cannot (Swedish) cross an EID boundary.

With the formulations (88-89, 91-92), I would like to turn to relevant facts of OS discussed in section 5:

Long OS (5.1.): I claimed that Long OS takes place in a subject focus construction. This is

⁴⁴ The other interpretation would be that a pronominal object transports the EID to a higher position. Recall that full NP shift does not take place at least in those three information structures. In other words, the EID that consists only of an object is realized in a postverbal position in an unmarked case; this differs from the case of a simple main verb that I introduce immediately below, in which a simple main verb occupies C in an unmarked case whether it is focused or not. Hence, I reject this interpretation.

accounted for as follows: the EID consists of a subject only; thus, a pronominal object excluded from the EID can appear anywhere outside the EID.

Reflexives (5.2.): I showed that whereas a long reflexive can be used in any information structures, a short reflexive can move in the same environments in which Swedish OS can apply. Hence, I argue that the same argument made for Swedish OS can apply to short reflexive movement.

Pronominal adverbials (5.3.): I showed that a proform of adverbials must stay in situ at least in argument-focus, contrastive argument-focus, and contrastive topic. Hence, I argue that despite dialectal variations, the same argument made for Swedish OS in general applies to shift of pronominal adverbials, though the situation is not so clear in some cases.

Expletives/quasi-arguments (5.4.): I stated that it would seem to be difficult to investigate the information structure of a sentence that contains an expletive in a small clause. Since expletives/quasi-arguments themselves do not affect meaning of a sentence, however, they cannot constitute the EID by themselves. Therefore, I claim that they are always either contained in or excluded from the EID; thus, they can appear anywhere either inside or outside the EID.

Adverbial intermingling (+ Long OS) (5.5.): It was stated that adverbial intermingling with or without Long OS can occur in any kind of information structures. Recall Anders Holmberg's suggestion introduced there that 'adverbials can receive emphasis and prominence depending on the contexts or a speaker's intention'. In other words, at least one adverbial in this construction carries the focus, that is, composes the EID, from where a pronominal object is excluded. Thus, I account for the facts on this construction as follows: a pronominal object can appear anywhere outside the EID.

OS in *yes-no* questions (5.6.): It was stated that the construction *köpte den Johan inte?* (bought it Johan not), in which an object crosses a subject, could be used as a question of contrastive verb-focus based on Vilkuna's (1995) claim that *yes-no* question is polarity-focus of a main verb, contrary to the prediction. I account for this as follows: a focused main verb *köpte* composes the EID by itself; a pronominal object *den* outside the EID tries to move towards into the EID, which would result in: [_{Foc} *köpte den*] *Johan den inte*; this would violate (89).

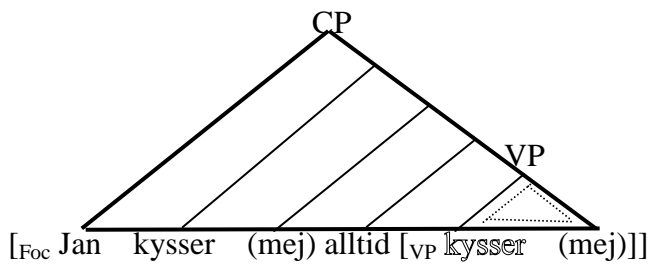
Negative/Quantifier Movement and WH-OS in Icelandic (5.7.): With the claim that bare pronominal forms, including bare negatives/quantifiers and bare *wh*-pronouns, tend to move obligatorily or optionally in Icelandic, I argue that the same argument for Icelandic OS applies to these movements: those bare pronominal forms may cross an EID boundary in Icelandic.

I would like to turn to Holmberg's Generalization (Holmberg 1986), which states that OS takes place only when main verb movement occurs too:

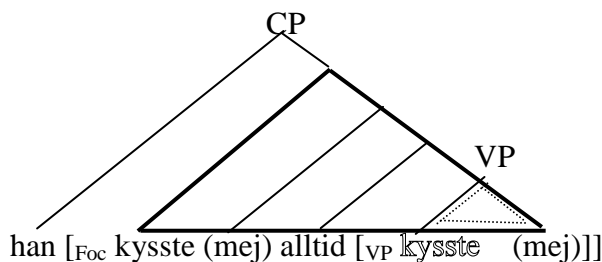
- (93) a. Jag kysste (^{OK}henne) inte [_{VP} kysste (^{OK}henne)].
 I kissed her not her
- b. Jag har (*henne) inte [_{VP} kysst (^{OK}henne)].
 I have her not kissed her
- c. ... att jag (*henne) inte [_{VP} kysste (^{OK}henne)].
 that I her not kissed her

Though a pronominal object is allowed to move when a main verb also moves (93a), an object pronoun cannot move in absence of main verb movement (93b-c). Let us see more detailed structures in which a pronominal object moves:

- (94) a. Sentence-focus: [_{Foc} Jan kysser (^{OK}mej) alltid (^{OK}mej)].

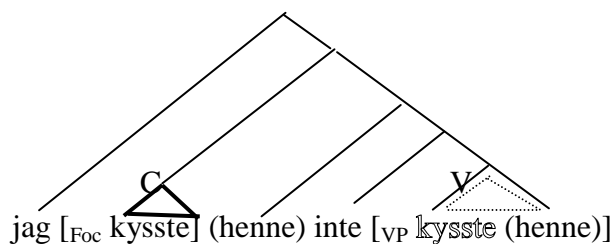


- b. Predicate-focus: Han [_{Foc} kysste (^{OK}mej) alltid (^{OK}mej)].

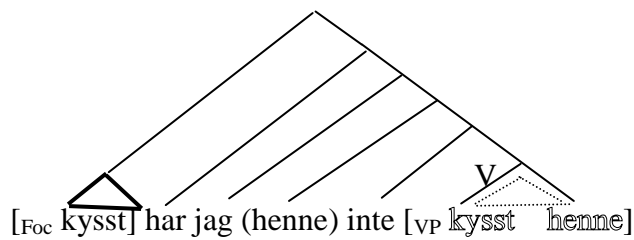


(95) (Contrastive) verb-focus:

- a. Jag [_{Foc} kysste] (^{OK}henne) inte (^{OK}henne).

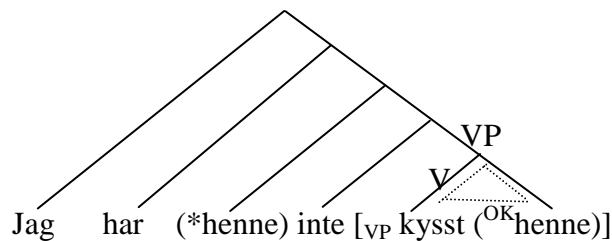


b. [_{Foc} Kysst] har jag (^{OK}henne) inte.

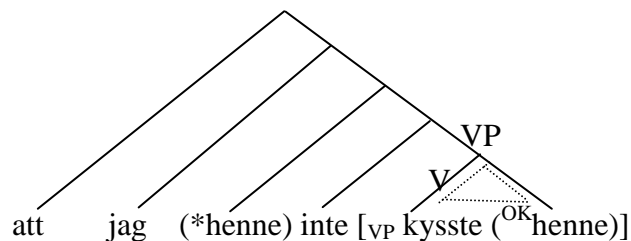


In sentence-focus (94a) and predicate-focus (94b), main verb movement extends the EID from VP to a CP level, which enables a pronominal object to appear anywhere either inside the EID of an entire sentence or inside the EID of a predicate. In (contrastive) verb-focus, movement of a main verb that is assigned the focus transports the EID from V to either C (95a) or the sentence-initial position (95b), where a moved verb composes the EID by itself. A pronominal object, being excluded from the EID, can appear anywhere outside the EID. Let us see more detailed structures in which OS cannot apply:

(96) a. Jag har (*henne) inte [_{VP} kysst (^{OK}henne)]. (=93b)



b. ... att jag (*henne) inte [_{VP} kysste (^{OK}henne)]. (=93c)



Since main verb movement does not take place in these cases, the EID cannot be extended from VP; the EID cannot be transported from V either.

Then, I would like to account for Holmberg's Generalization as follows: OS is available when main verb movement takes place, since main verb movement triggered by the V2 constraint either extends or transports the EID. As we saw in section 2.2, OS is blocked not only by an unshifted main verb but by any VP-internal visible category, a preposition (97a), an indirect object (97b), and a verb particle (97c).

- (97) a. Jag talade (*henne) inte med (^{OK}henne). (=15)
 I spoke her not with her
- b. Jag gav (*den) inte Elsa (^{OK}henne). (=16)
 I gave it not Elsa her
- c. Dom kastade (*mej) inte ut (^{OK}mej). (=17)
 they threw me not out me
 (Holmberg 1999:2,(2a-c))

It is stated that an object follows a verb particle in Swedish, whereas the former precedes the latter in the other Scandinavian languages⁴⁵:

- (98) a. Jeg skrev (nummeret/det) op (*nummeret/*det). (Dan.)
- b. Jeg skrev (nummeret/det) opp (nummeret/*det). (Nor.)
- c. Jag skrev (*numret/*det) upp (numret/det). (Swe.)
 I wrote (the-number/it) up (the-number/it)
 'I wrote the number/it down.'
 (Holmberg 1999:2,(3a-c))

In all the Scandinavian languages except Swedish, a pronominal object can move crossing the sentence adverbial:

- (99) a. Jeg skrev det måske ikke ~~det~~ op. (Dan.)
 I wrote it maybe not it up
- b. De kastet meg ikke meg ut. (Nor.)
 they threw me not me out
 (Holmberg 1999:2,(4a-b))

Based on these facts, I would like to argue that main verb movement can always pave the way to availability of OS by extending or transporting the EID in the Scandinavian languages. I claim that the fact that a verb particle blocks OS in Swedish is due to peculiarity of Swedish word order between a particle and an object.^{46,47}

⁴⁵ See Holmberg (1999) for a detailed description concerning difference among the Scandinavian languages.

⁴⁶ I leave aside the fact on an indirect object here. See footnote 39.

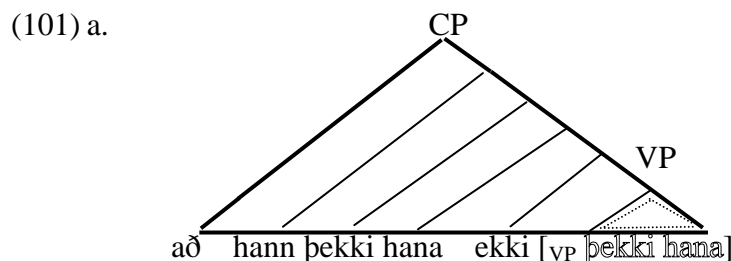
⁴⁷ This account might recall readers of the account of OS made in the period in which Agr was assumed (Chomsky 1995): verb-raising to AgrO extends the minimal domain, which enables an object to move to [Spec,AgrOP] under the equidistance condition (Chomsky 1995:184-185). The greatest difference from this is that the EID is not only a syntactic domain but the domain which semantic/information-structural properties are reflected on. Thus, extension of the EID leads not only to that of a syntactic domain, but extension and change of

I mention the other information structures of Swedish OS. Main verb movement in a main clause is obligatory under the V2 constraint: there are no cases in which main verb movement does not take place in a main clause. Thus, in argument-topic, an object pronoun that is excluded from the EID can appear anywhere outside the EID, whether or not main verb movement plays a role in extending or transporting the EID. In the cases in which a pronominal object composes the EID by itself (i.e. argument-focus, contrastive argument-focus, and contrastive topic), an object pronoun cannot move out of the EID in Swedish despite presence of main verb movement.

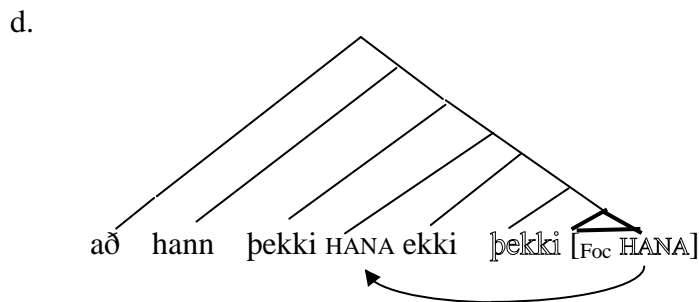
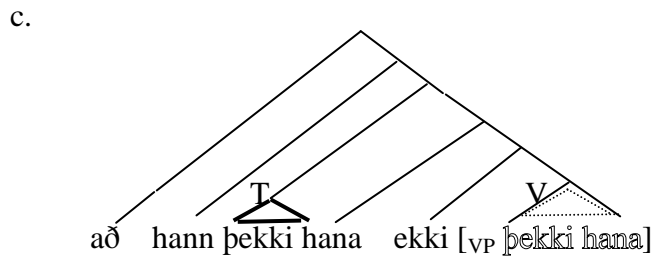
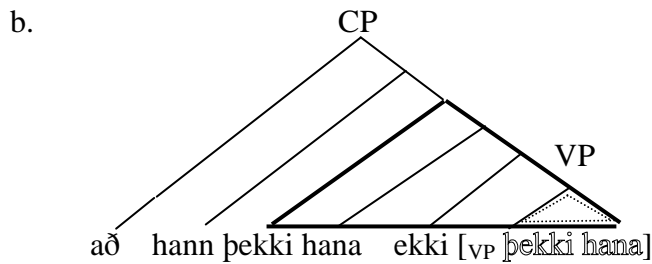
I turn to Icelandic OS. The cases of sentence-focus and predicate-focus (94a-b) apply to Icelandic as they are. Concerning (contrastive) verb-focus, only (95a) applies, since Icelandic does not have a Verb-Fronting construction like (95b). (96a), in which an Aux is present, applies to pronominal OS and *wh*-OS, but not to Negative/Quantifier Movement, as we saw in the previous section. The same argument for argument-topic of Swedish OS applies to that of Icelandic OS. In addition, an object pronoun may cross an EID boundary in argument-focus, contrastive argument-focus, and contrastive topic in Icelandic due to the parameter (92). Main verb movement takes place in an embedded clause in Icelandic; thus, OS can take place too:

- (100) ... að hann þekki hana ekki. (=6)
 that he knows her not
 ‘... that he doesn’t know her’

The same arguments for a main clause apply to this case, except that a main verb moves from V to T. Main verb movement can extend the EID from VP to a CP level, which enables a pronominal object to appear anywhere either inside the EID of an entire subordinate clause (101a) or inside the EID of a predicate (101b). Movement of a main verb that is focused can transport the EID from V to T, where a moved verb composes the EID by itself; this enables an object pronoun to appear anywhere outside the EID (101c). In the cases in which an object pronoun composes the EID by itself, it may cross an EID boundary due to the parameter (101d).



the domain which those properties are reflected on.



7. Conclusion

In this paper I investigated the environments in which OS, originated in Holmberg (1986), is (in-)applicable based on information structure (Lambrecht 1994, Kiss 1998, Büring 1997, Vilkuna 1995). I showed that Swedish OS can apply in sentence-focus, predicate-focus, contrastive verb-focus, verb-focus, and argument-topic, whereas OS is inapplicable in argument-focus, contrastive argument-focus, and contrastive topic. I also showed that pronominal OS is almost obligatory in Icelandic, but full NP shift is in fact limited to only a few cases. With these results of the investigations, I claimed that semantics of OS is not neatly classified into a dichotomy between the position that an object occupies and the interpretation that it receives as claimed by the Mapping Hypothesis (Diesing 1992, 1997), and that a derivational mechanism of OS that (tacitly) assumes the hypothesis (Chomsky 2001) makes a wrong prediction. I discussed other relevant facts of OS: Long OS, reflexives, movement of pronominal adverbials, expletives/quasi-arguments, adverbial intermingling (+ Long OS), and OS in *yes-no* question. With the data of Negative/Quantifier Movement and *wh*-OS, I claimed that bare pronominal forms, including bare quantifiers/negatives and bare *wh*-pronouns, tend to move obligatorily or optionally in Icelandic. Concerning full NP shift, on the other hand, I claimed that it may be triggered only by either a property of Icelandic present tense that it normally receives generic reading or focalization on a main verb. For explanation of OS, I

introduced a new notion, the *exhaustive identification domain*, which states that syntax has a domain that corresponds to a subset of the set for which exhaustive identification is made:

(102) *Exhaustive identification domain* (EID):

The syntactic domain which corresponds to a subset of the set which exhaustive identification operates on.

(=88)

With this notion, I presented accounts of Swedish OS as follows: when a pronominal object stays inside the EID, it can stay in and only inside the EID, and can appear anywhere inside it; when an object pronoun is excluded from the EID, it can appear anywhere outside it, but cannot move towards into the EID. I formulated (in-)applicability of Swedish OS as follows:

(103) A pronominal object can appear anywhere either inside or outside the EID, but cannot cross an EID boundary.

(=89)

Based on the fact that an object pronoun almost obligatorily moves in Icelandic, I proposed the Object Shift Parameter as follows:

(104) A pronominal object may (Icelandic) or cannot (Swedish) cross an EID boundary.

(=92).

With these claims, I argued that Holmberg's Generalization can be accounted for as follows: OS is available when a main verb also moves, since main verb movement triggered by the V2 constraint extends or transports the EID, which paves the way to availability of OS.

Finally, I would like to make several remarks. First, it is widely claimed in the literature that in the environments in which OS can apply (i.e. sentence-focus, predicate-focus, (contrastive) verb-focus, and argument-topic, here), pronominal OS is obligatory in some Scandinavian varieties. Nothing would prevent an object pronoun from remaining in situ in any of the Scandinavian languages, based on the account here that an object pronoun can appear anywhere either inside or outside the EID. A possible account may rely on property of sound patterns in those languages in Erteschik-Shir's (2005) sense.

Second, if full NP shift is triggered only by either a property of Icelandic present tense or focus on a main verb, full NP shift is an exceptional case. What is called Scandinavian OS will apply only to pronominal shift, with full NP shift excluded from OS. Then, the cross-Scandinavian parameter will not distinguish Icelandic from the other Scandinavian languages, but distinguish different properties of pronominal shift among the Scandinavian varieties. Turning to the question what is full NP shift, a possibility from a simple conjecture is that it is a kind of scrambling observed in other Germanic languages. If so, Scandinavian pronominal OS will be regarded as a phenomenon different from scrambling; it will not be

possible to unify both into one. I leave these issues as well as discussions of an expletive construction (i.e. *það*-construction) in Icelandic, which I did not deal with in this paper, for future research.

Third, this paper started with introduction of the (reversed) Y-model traditionally assumed in generative grammar. Since a resulting syntactic structure would receive an interpretation in this model, the position that an argument occupies in a grammatical structure should coincide with the interpretation that it receives. The Mapping Hypothesis (Diesing 1992) has supported, and has been supported by, this traditional syntactic model, claiming a dichotomy between the position that an object occupies and the interpretation that it receives. The investigations made here, however, showed that the Mapping Hypothesis does not apply to Scandinavian OS whatsoever: i) in Swedish, an object pronoun can move both when it is defocused and when it is part of new information; a pronoun may remain in situ both when it is focused and when it should not be new to the discourse; and ii) in Icelandic, pronominal shift is almost obligatory (with full NP shift limited to only a few cases). Therefore, I would like to suggest that the facts of Scandinavian OS may be a serious counterargument against the traditional syntactic model as well as the theoretical basis of the study based on it, especially that of the cartographic study (Rizzi 1997, Cinque 1999). More research should be made for this peculiar movement phenomenon in the Scandinavian languages.⁴⁸

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⁴⁸ See Rooth (1992) for a theory of focus, the Alternative Semantics, which is argued not to be incompatible with the traditional syntactic model.

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