

On Icelandic Object Shift*

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Abstract

In this paper I discuss Icelandic Object Shift from the perspective of the Icelandic intonational properties. I firstly show that the arguments based on the Mapping Hypothesis (Diesing 1992, 1997) make a wrong prediction for the applicability of Object Shift, and argue that Object Shift should be dealt with as a movement phenomenon different from full NP shift. Then I introduce the experiment carried out to observe the intonational properties of the constructions relevant to Icelandic Object Shift and present the experimental data. I propose a new hypothesis on Icelandic Object Shift: a weak object pronoun moves to avoid lengthening. On the basis of the hypothesis I present an account of Holmberg's Generalization for Icelandic Object Shift as follows: when a focus-accented main verb moves, a weak object pronoun moves to avoid lengthening and eliminate the focal effect on itself. When a weak object pronoun can avoid lengthening in situ, e.g. in complex tense forms in which its main vowel can be shortened after a focus-accented main verb in situ, it does not move. Comparing Icelandic Object Shift with Swedish Object Shift, I argue that they are caused by different factors.

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1. Introduction

The Scandinavian languages have a movement phenomenon called *Object Shift* OS, in which an object pronoun moves out of VP (Holmberg 1986, 1999)¹:

- (1) a. Jag kysste henne inte. (Swe.)
 I kissed her not
 ‘I didn’t kiss her.’
- b. Jag kysste henne inte [_{VP} kysste henne]
 (Holmberg 1999:1,(1))

In Danish, Icelandic, and most varieties of Norwegian an object pronoun cannot be left if it is unstressed and simple, whereas in most of the Swedish dialects and some of the Norwegian varieties an object pronoun can be stranded even if it is weak.² An object pronoun can move when a main verb moves too (2a). When a main verb does not move, an object pronoun cannot move either, see (2b). Verb movement does not occur in embedded clauses (2c), in which OS does not occur either. The fact that only when a main verb moves, an object pronoun can move too is called *Holmberg’s Generalization* (Holmberg 1986).

- (2) a. Jag kysste (^{OK}henne) inte [_{VP} kysste (^(OK/*)henne)]. (Swe.)
 I kissed her not her
 ‘I didn’t kiss her.’
- b. Jag har (*henne) inte [_{VP} kysst (^{OK}henne)].
 I have her not kissed her
 ‘I haven’t kissed her.’

¹ In this work the terminology *Object Shift* is used to refer to pronominal shift only. I refer to movement of noun phrases as full NP shift.

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

- c. ... att jag (*henne) inte [_{VP} kysste (^{OK}henne)]
 that I her not kissed her
 ‘... that I didn’t kiss her’
 (Holmberg 1999:1,(1a-c))

Icelandic differs from the other Scandinavian languages in two points. First, Icelandic has main verb movement in embedded clauses, in which OS takes place:

- (3) ... að hann þekki hana ekki [_{VP} þekki hana]. (Ice.)
 that he knows her not
 ‘... that he doesn’t know her’
 (Holmberg and Platzack 1995:144,(6.7))

Second, it is widely claimed that strong object pronouns and full NPs can optionally move in Icelandic (4a), whereas they cannot move in the other Scandinavian languages (4b).³

- (4) a. Jón keypti (^{OK}HANN/^{OK}bók Chomskys) ekki (^{OK}HANN/^{OK}bók Chomskys). (Ice.)
 Jón bought it book Chomsky’s not it book Chomsky’s
 ‘Jón didn’t buy IT/Chomsky’s book.’
 (Holmberg 1986:229,(205c-f))
- b. Dom känner (*HONOM/*Gunnar) alla (^{OK}HONOM/^{OK}Gunnar). (Swe.)
 they know him Gunnar all him Gunnar
 ‘They all know HIM/Gunnar.’
 (Holmberg 1986:223,(193,d))

Full NP shift is subject to Holmberg’s Generalization. In complex tense forms (5), which contain an Aux, a main verb does not move. A full NP cannot move either.

³ But see Nilsen (1997), who claims that full NP shift is not impossible in the Scandinavian languages other than Icelandic, and Josefsson (2003) for an argument against this claim.

- (5) Jón hefur (*þessa bók) aldrei lesið (^{OK}þessa bók). (Ice.)
 Jón has this book never read this book
 ‘Jón has never read this book.’
 (Thráinsson 2007:31,(2.26a-b))

Since OS and full NP shift share the property that they are subject to Holmberg’s Generalization, attempts have been made to provide a unified account for them. In many accounts it is widely (and tacitly) assumed that the object that is new to the discourse and/or focused remains inside VP, whereas the object that is old information and/or defocused moves out of VP (*The Mapping Hypothesis*, Diesing 1992, 1997). The arguments based on the Mapping Hypothesis, however, make a wrong prediction concerning the applicability of OS, as we see below. In Hosono (2010) I suggest the possibility that the presence of OS in Swedish is closely related to the intonational properties of the language. In this paper I discuss Icelandic OS from the perspective of the Icelandic intonational properties by presenting experimental data of the constructions relevant to OS. I propose a new hypothesis on Icelandic OS and provide an account of Holmberg’s Generalization for Icelandic OS on the basis of the hypothesis. I argue that Icelandic OS is caused by factors different from those that cause Swedish OS.

This paper is organized as follows. In section 2 I show that the arguments based on the Mapping Hypothesis (Diesing 1992, 1997) make a wrong prediction for the applicability of OS. I argue that OS should be dealt with as a movement phenomenon different from full NP shift. In section 3 I introduce the phonological properties of Icelandic. I also introduce the experiment carried out to observe the intonational properties of the constructions relevant to Icelandic OS and present the experimental data. In section 4 I propose a new hypothesis on Icelandic OS on the basis of the literature (Árnason 1999, Gussmann 2002): a weak object pronoun moves to avoid lengthening. On

the basis of the hypothesis I provide an account of Holmberg's Generalization for Icelandic OS. In section 5 I compare Icelandic OS with Swedish OS. I argue that they are caused by different factors. In section 6 I conclude this paper.⁴

2. Previous accounts of Icelandic Object Shift

It is widely claimed that a shifted full NP is interpreted as specific and/or old information, whereas a non-shifted full NP can be interpreted as new information and/or focused in the unmarked case. In (6a) *Stríð og frið* 'War and Peace' appears in question A and is the topic in answer B. Being old information, that phrase is easily fronted. In (6b), on the other hand, the same phrase has not appeared in question A. It is part of a focused predicate in answer B and cannot move.

(6) a. A: Þekkir Jón Stríð og frið? (Ice.)
 knows Jón War and Peace
 'Does Jón know War and Peace?'

B: Já, hann les (^{OK}Stríð og frið) alltaf (?Stríð og frið) í fríinu sínu.
 yes he reads W&P always W&P in vacation-the his
 'Yes, he always reads War and Peace in his vacation.'

b. A: Hvað gerir Jón í fríinu sínu?
 what does Jón in vacation-the his
 'What does Jón do in his vacation?'

⁴ In Icelandic expletive construction, an argument may be located in different positions:

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.'

(Vangsnes 2002:44,(1))

I do not discuss movement of NPs in expletive construction in this paper.

- B: Hann les (*Stríð og frið) alltaf (^{OK}Stríð og frið).
 he reads W&P always W&P
 ‘He always reads War and Peace.’
 (Thráinsson 2007:76,(2.107-108))

Based on these facts, Diesing (1992) proposes the Mapping Hypothesis, which claims that the object that is focused and/or new information remains inside VP whereas the object that is specific and/or old information moves out of VP. Specifically, an indefinite NP tends to be interpreted as new information and remains inside VP (7a); it may move, when it is defocused due to focalization of the main verb (7b). An in-situ definite NP is awkward for its familiar status and must move out of VP; this awkwardness improves when it receives a contrastive interpretation (8). An indefinite pronoun must stay inside VP for its novel and new status (9). A definite pronoun is specific in its inherent nature; it must move out of VP (10).

- (7) 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))
- (8) Jón keypti (^{OK}bókina) ekki (^{*?}bókina). (Ice.)
 Jón bought the-book not the-book
 ‘Jón didn’t buy the book.’
 (Diesing 1997:416-417,(78,80))

- (9) 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))
- (10) Hann las (^{OK}  er) ekki (*  er). (Ice.)
 he read them not them
 (Diesing 1997:413-414,(76))

The Mapping Hypothesis has been assumed so far in many accounts of OS and full NP shift (Diesing 1992, 1997; Holmberg and Platzack 1995; Holmberg 1999; Chomsky 2001; Sells 2001; Vikner 2001; Fox and Pesetsky 2005; Erteschik-Shir 2005a,b; Broekhuis 2008; among others). Since OS and full NP shift are both subject to Holmberg’s Generalization, the account that can unify OS and full NP shift has been sought (e.g. Collins and Thr  insson 1996, Diesing 1997, Chomsky 2001).⁵

Chomsky (2001) presents an account of OS within the phase theory.⁶ According to Chomsky, only when the difference in interpretation is reflected on the semantic interface, is the EPP that triggers movement (or the second merge) assigned to a phasal head. The relevant phasal head here is the functional head of a verbal category, *v**. Assuming that *Marit* in (11a) is interpreted as focus and/or new information in its original position, whereas *henne* in (11b) is interpreted as defocused and/or old information, Chomsky argues that the former remains inside VP (12a), whereas the latter moves from inside VP to [Spec,*v**P] due to the EPP assigned to *v** (12b).

- (11) a. Jag kysste inte Marit. (Swe.)
 I kissed not Marit
 ‘I didn’t kiss Marit.’

⁵ But see Bobaljik and Jonas (1996), who discuss full NP shift separating it from OS.

⁶ See Chomsky (2001) for detailed derivational mechanisms within the phase theory.

- b. Jag kysste henne inte.
 I kissed her not
 ‘I didn’t kiss her.’

(12) a. ... [_{v*P} inte [_{v*P} v* [_{VP} kysste Marit]]]

b. ... [_{v*P} inte [_{v*P} henne [_{v*P} v* [_{VP} kysste henne]]]

In (12b), the negation *inte* is merged after movement of an object pronoun; a main verb vacates to a higher position. Thus, movement of an object pronoun to [Spec,v*P] is string-vacuous: it does not affect the order of the preceding negation and the following object pronoun. Movement of an object pronoun to the position between a main verb and the negation where it is actually pronounced is claimed to be a PF-movement.

The accounts on the basis of the Mapping Hypothesis predict that the object pronoun that is familiar and presupposed in the discourse could not remain in situ. OS in some Scandinavian varieties is optional and a weak object pronoun can appear in the position following the negation, as illustrated in (2a). Due to the assumption of a string-vacuous movement to [Spec,v*P], however, the phase system can cover not only the case of a moved object pronoun but also that of an unshifted object pronoun, which makes this system tenable for this prediction.

The other prediction is that the object pronouns that carry new information and/or focus could not move. They can actually move, however. As we saw in section 1, strong object pronouns can optionally move. They are assigned phonological prominence, the properties of which we turn to later, and they can receive the interpretation of focus by themselves, e.g. by being contrastively focused. In addition, shifted weak object pronouns, though they are not assigned phonological prominence, can carry part of new information and/or

focus (Engdahl 1997; Sells 2001; Hosono 2006, 2007):

- (13) a. *Sentence-focus*:
 What's up? – [_{Foc} John always kisses me (in presence of others!)].
 i) ^{OK}Jan kysser mig alltid. (Swe.)
 Jan kisses me always
 ii) ^{OK}Jan kysser alltid mig.
- b. *Predicate-focus*:
 What did John always do? – He always [_{Foc} kissed me].
 i) ^{OK}Han kysste mig alltid.
 he kissed me always
 ii) ?Han kysste alltid mig.

A typical case of sentence-focus (13a) is the answer to ‘out-of-the-blue’ questions such as ‘what happened?’, in which nothing is presupposed. The answer contains only new information: the entire answer sentence carries the focus (Lambrecht 1994). The subject *John* is already presented in the question (13b). The answer sentence has a topic-comment structure in which the subject is a topic and the predicate carries the focus, making a comment on the subject (Lambrecht 1994). In both of these cases the object pronoun *mig* can move across a sentential adverb (i.e. *alltid*). It might be argued that object pronouns such as the first person are the most salient in the discourse, which enable them to move. However, the first speaker who makes a question does not need to know in advance the contexts such that the addressee and John love each other, etc. In that sense those object pronouns can fully carry part of new information in the contexts above. The same applies to Icelandic⁷:

⁷ Judgment of Icelandic is made by Halldór Á. Sigurðsson (p.c.).

- (14) a. *Sentence-focus*:
 What's up? – [_{Foc} John always kisses me (in presence of others!)].
 i) ^{OK}Jón kyssir mig alltaf. (Ice.)
 Jón kisses me always
 ii) *Jón kyssir alltaf mig.
- b. *Predicate-focus*:
 What did John always do? – He always [_{Foc} kissed me].
 i) ^{OK}Hann kyssti mig alltaf.
 he kissed me always
 ii) *Hann kyssti alltaf mig.

The fact that OS applies not only when an object pronoun is defocused and/or is old information but also when it carries (part of) new information and/or focus indicates that the semantic effects that are imposed on an object pronoun itself are not decisive for its movement and the trigger of OS cannot be attributed to them. This further indicates that OS should be dealt with as a different type of movement than full NP shift, where a new interpretation different from the one in the original position is always produced for a moved NP: a shifted full NP is always interpreted as specific and/or old information, whereas a non-shifted full NP is interpreted as new information and/or focused in the unmarked case, as we saw above.⁸

3. The intonational properties of Icelandic Object Shift

In this section I introduce the intonational properties of Icelandic, and present experimental data of the constructions relevant to Icelandic OS. Icelandic does not have the kind of word tones observed in Swedish and Norwegian (Árnason 1999). Word stress is almost obligatorily located on the first syllable. Weak final

⁸ The argument here does not provide an account for the fact that full NP shift is subject to Holmberg's Generalization in the same way as OS, as illustrated in (5). I leave this for future research.

vowels often disappear when the next word starts with a vowel (Dehé 2006). Icelandic has several peculiar phonological properties, among which is preaspiration (Árnason 1999, Gussmann 2002). Icelandic plosives are either aspirated or unaspirated, but are not aspirated after sonorants such as vowels. The sequence of geminated plosives and the plosive followed by a sound like [l] and [n] appear as ‘a preaspirated plosive which itself is unaspirated’ (Gussmann 2002:55), which results in the insertion of [h] before the plosive. Thus, the negation *ekki*, which is a typical diagnosis of the presence or absence of OS but a weak sentential element, is pronounced with preaspiration as [ehki].

Another peculiar phonological property of Icelandic is found in the compounding process (Árnason 1999, Gussmann 2002). The rhythmic pattern of combined words is arranged by reducing the secondary stress of the first element and maintaining the primary stress of the second element. Thus, *'forust,a'* ‘leadership’ + *'sauður* ‘sheep’ results in *'forustu,sauður* ‘leading sheep’, in which the secondary stress of the first element is reduced and the primary stress of the second element is kept as the secondary stress of the entire compound. The vowel of the first syllable of the first element may or may not maintain its length, but that of the second element does not keep its length. Thus, *gler* [klɛ:r] ‘glass’ + *auga* [œi:ɣa] ‘eye’ results in *glerauga* [klɛ:rœiɣa] ‘glass eye’, in which the long vowel of the first element is maintained. *Haf* [ha:v] ‘ocean’ + *gola* [kɔ:la] ‘breeze’ results in *hafgola* [havkɔla] ‘sea breeze’, in which the long vowel of the first element is not kept any longer. The long vowel of the second element, on the other hand, is maintained in neither of the cases.

The pitch accent system of Icelandic is similar to that of English (Árnason 1999). Phrasal accent is located on the rightmost constituent in the unmarked case. Declarative sentences are realized by either H*L or L*H, and downstep is observed in both patterns (Dehé 2006, 2009). The domain in which

⁹ ‘ ’ shows the location of the primary stress, and ‘ , ’ that of the secondary stress.

downstep occurs in Icelandic is an intonational phrase, normally a sentence. Downstep is interrupted and upstep, which makes a following H higher than the preceding H in turn, occurs until a focused element appears. Contrastive and non-contrastive foci are realized by either H*L or L*H, in the latter of which pitch often maintains its height until it falls in sentence-final position. The property that characterizes the Icelandic intonational system is that the focus of a sentence is realized by focus accent as well as lengthening of either vowels or consonants (Árnason 1999, Gussmann 2002). Vowels are lengthened when they are either i) word-final, e.g. *frí* [fri:] ‘holiday’, ii) followed by only one consonant, e.g. *von* [vɔ:n] ‘hope (noun)’, which may be followed by another vowel, e.g. *vona* [vɔ:na] ‘to hope (verb)’, or iii) followed by a consonant cluster consisting of [p,t,k,s] and [v,j,r], e.g. *nepja* [nɛ:pja] ‘cold weather’.

I carried out an experiment to observe the intonational properties of the constructions relevant to Icelandic OS. The constructions investigated are simple tense forms with (15a) or without (15b) OS, complex tense forms (15c), and embedded clauses (15d). In (15a) an object pronoun is either weak or strong; in (15b) it is strong. *Verb Topicalization* (15e), a contrastive verb-focus construction in which a past participle moves to sentence-initial position and OS also occurs, was added due to the theoretical significance related to this construction (Holmberg 1999, Chomsky 2001).

- (15) a. Simple tense forms with OS:
 E.g. *Ég keypti hann ekki. / Ég kyssti HANA ekki*
 I bought it not I kissed her not
 ‘I didn’t buy it.’ ‘I didn’t kiss HER.’
- b. Simple tense forms without OS:
 E.g. *Ég kyssti ekki HANA.*
 I kissed not her
 ‘I didn’t kiss HER.’

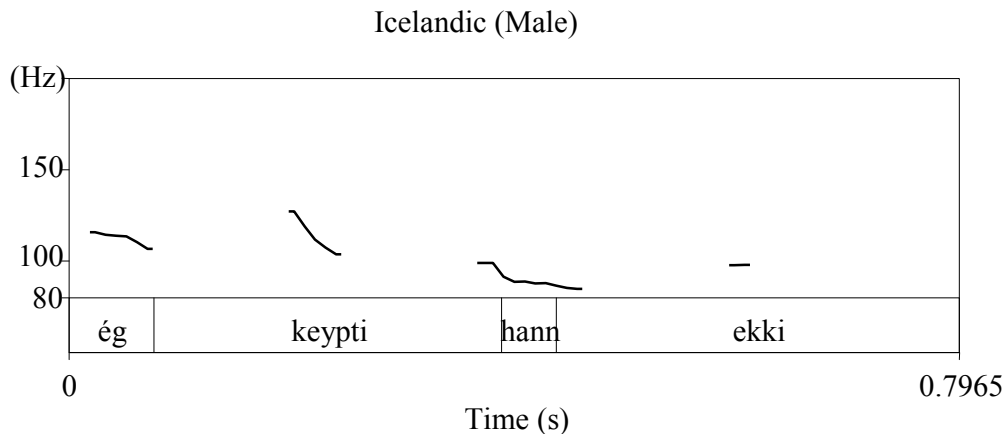
- c. Complex tense forms:
 E.g. Ég hef ekki séð hann.
 I have not seen it
 ‘I haven’t seen it.’
- d. Embedded clauses:
 E.g. Ég sagði að ég kyssti hana ekki.
 I said that I kissed her not
 ‘I said that I didn’t kiss her.’
- e. Verb Topicalization (Holmberg 1999):
 E.g. Kysst hef ég hana ekki.
 kissed have I her not
 ‘I haven’t KISSED her.’

Test sentences contain either a monosyllabic pronoun (e.g. *hann* ‘it’) or a disyllabic pronoun (e.g. *hana* ‘her’). On the basis of the literature on information structure (Lambrecht 1994, Vilkuna 1995, Kiss 1998), appropriate contexts were built with a question and the answer, the latter of which corresponds to each relevant construction: e.g. polarity-focus: *keyptir þú bílinn?* (bought you the-car ‘did you buy the car?’) – *nei, ég keypti hann ekki* (no I bought it not ‘no, I didn’t buy it’). See Appendix for the material used. Data were collected from two male speakers. They were asked to read each question-answer pair in an appropriately rapid speech, in such a way as they speak in real-life conversation. One speaker rejected the Verb Topicalization construction (as well as simple tense forms without OS of weak object pronouns) as awkward. The other speaker was asked to read all sentence forms, some of which were taken as reference data. PRAAT was used for recording, and each sentence pair was recorded five times.¹⁰

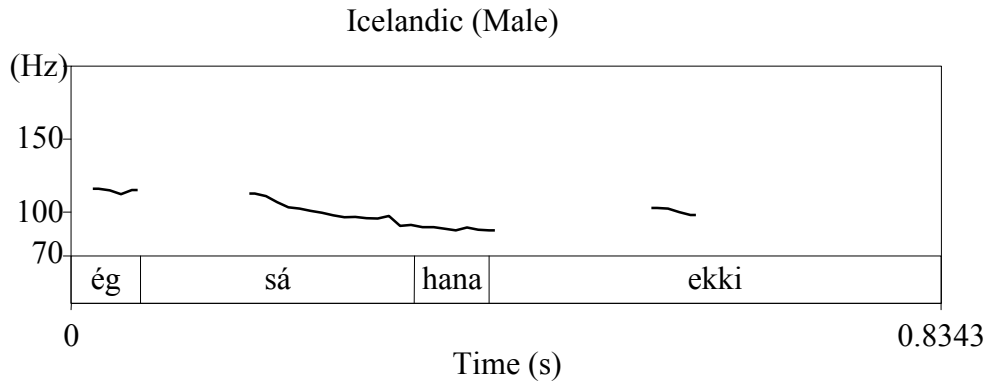
¹⁰ See Hosono (2010) for the details of the experiment concerning Swedish OS. There, test sentences for female informants were slightly different from those for male informants in order to trigger more real imagination and natural reading.

The pitch picture of simple tense forms with OS of weak object pronouns is typically represented by (16). A main verb is focus-accented. In the case of monosyllabic object pronouns (16a) pitch extraordinarily lowers from the pitch peak on the first syllable *keyp-* of the main verb *keypti*, through the object pronoun *hann*, to the negation *ekki*. The first syllable *e-* of the negation is pronounced in liaison with the nasal *-nn* of the preceding object pronoun. In the case of disyllabic object pronouns (16b) too pitch lowers (extraordinarily in some cases) from the pitch peak on the main syllable of the main verb *sá*, through the object pronoun *hana*, to the negation. The final vowel *-a* of the object pronoun drops before the initial vowel *e-* of the negation, and the latter is pronounced in liaison with the nasal *-n-* of the object pronoun. In both cases duration of the main vowel of the object pronoun is quite short.

- (16) a. *Ég keypti hann ekki.*
 I bought it not
 ‘I didn’t buy it.’



- b. *Ég sá hana ekki.*
 I saw her not
 ‘I didn’t see her.’

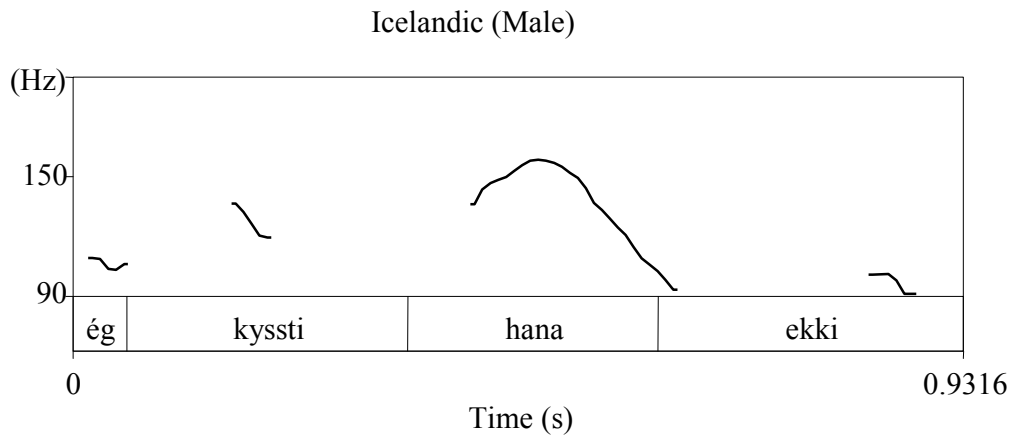


Simple tense forms with OS of strong object pronouns are pronounced in either of two ways. One informant pronounced in such a way that both focus accent and pitch peak come on the first syllable *han-* of the object pronoun *hana*; rise-fall pitch occurs on that first syllable (17a).¹¹ The other informant pronounced in such a way that focus accent and pitch peak come on the main verb and pitch falls from it to the negation *ekki* (17b). In the utterance of both speakers the vowel of the first syllable *han-* of the object pronoun is lengthened and that of the second syllable *-a* is slightly lengthened too.

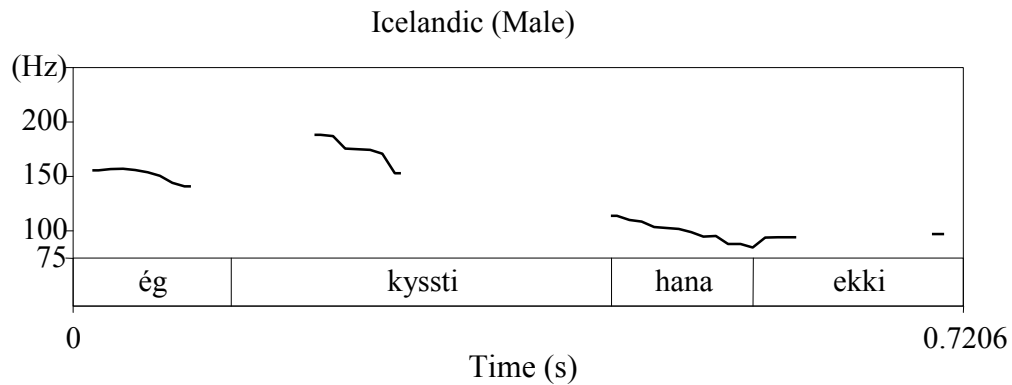
- (17) *Ég kyssti HANA ekki.*
 I kissed her not
 'I didn't kiss HER.'

¹¹ This speaker slipped the tongue in all the five recordings. This indicates that the pitch pattern (17a) in which a shifted object pronoun carries the focus accent of a sentence is quite awkward for Icelandic speakers.

a.



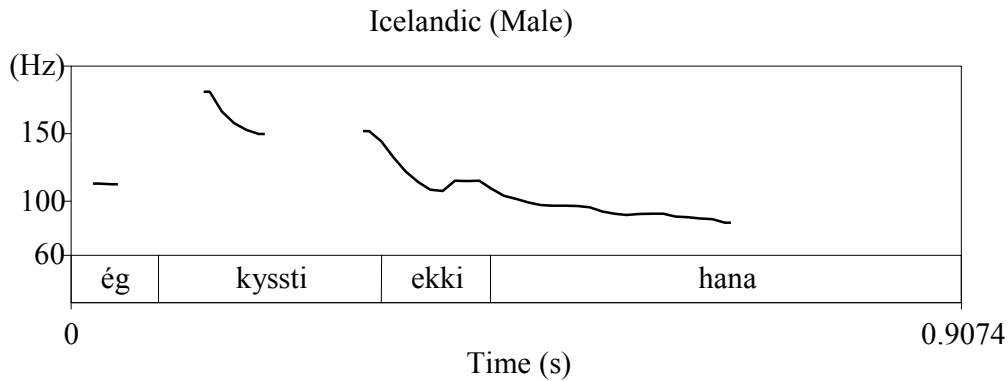
b.



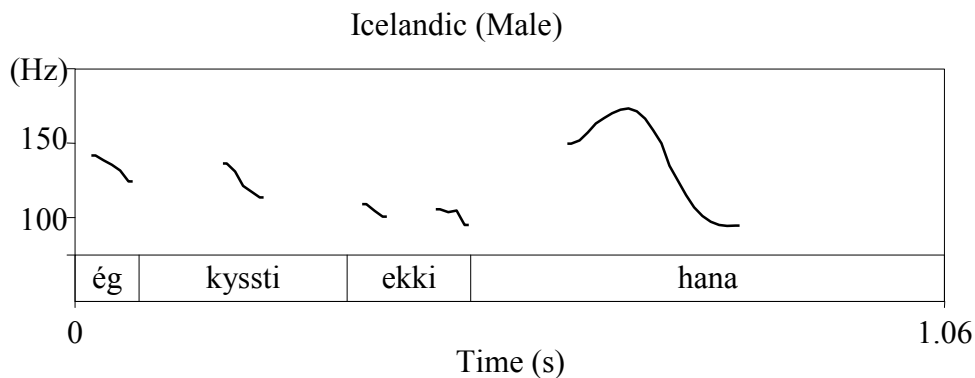
Simple tense forms without OS of strong object pronouns too are pronounced in either of two ways. One speaker pronounced in such a way that focus accent and pitch peak come on the main verb, and pitch falls from it to the sentence-final object pronoun *hana* (18a). The other speaker pronounced in such a way that pitch level is maintained towards the pitch peak that comes on the first syllable *han-* of the object pronoun, on which focus accent is also located (18b). Here too, the vowel of the first syllable *han-* of the object pronoun is lengthened and that of the second syllable *-a* is also lengthened in the utterance of both speakers.

- (18) Ég kyssti ekki HANA.
 I kissed not her
 ‘I didn’t kiss HER.’

a.

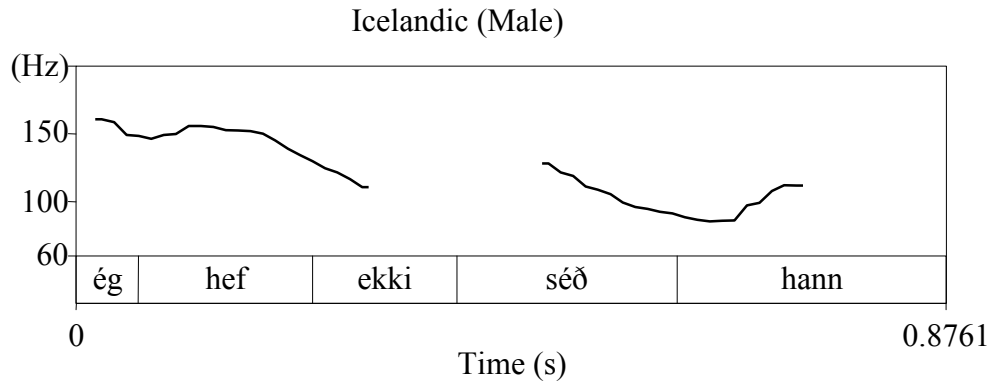


b.



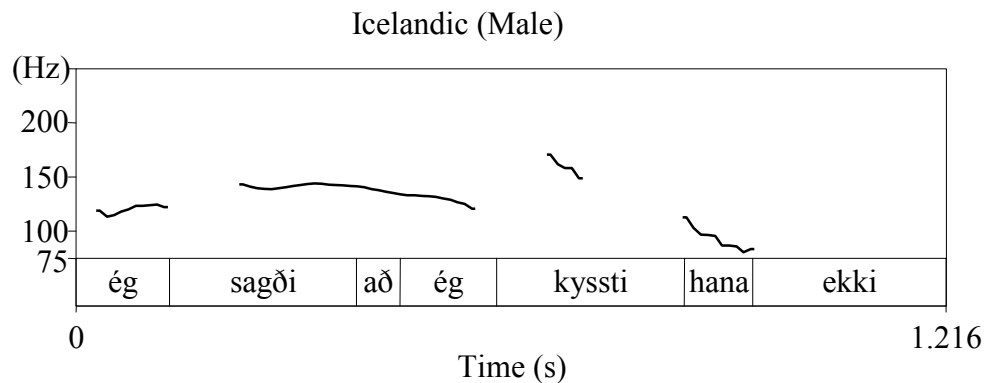
The pitch picture of complex tense forms is typically shown in (19). Pitch peak comes on the main syllable of the Aux *hef* and downstep occurs from it, though focus accent comes on the main syllable of the past participle *séð*. The initial [h] of the object pronoun *hann* is dropped. Duration of the main vowel of the object pronoun is rather short.

- (19) Ég hef ekki séð hann.
 I have not seen it
 ‘I haven’t seen it.’



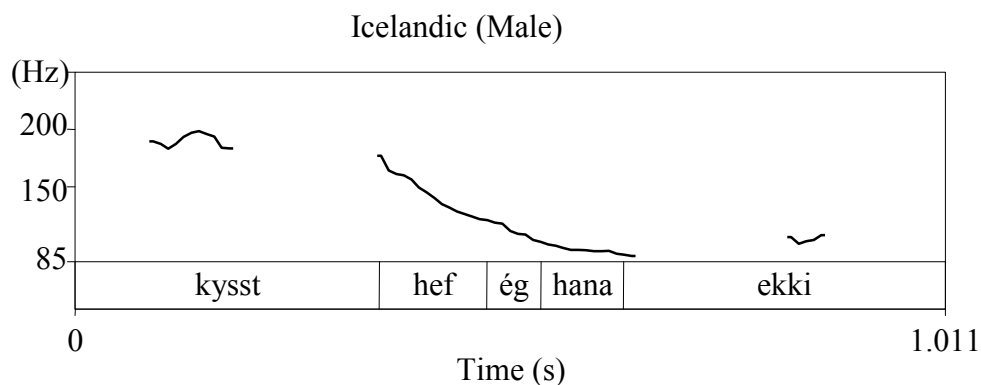
The pitch picture of embedded clauses is typically illustrated by (20). Pitch level is maintained from the first syllable *sag-* of the main verb of a main clause *sagði* to the subject of an embedded clause *ég*. Focus accent and pitch peak come on the first syllable *kys-* of the main verb of an embedded clause *kyssti*, and pitch extraordinarily falls from it, through the object pronoun *hana*, to the negation *ekki*. Duration of the main vowel of the first syllable *han-* of the object pronoun is quite short, with its final vowel *-a* dropping. The negation is so weak that its segmental sounds are voiceless in some cases, as illustrated below.

- (20) *Ég sagði að ég kyssti hana ekki.*
 I said that I kissed her not
 ‘I said that I didn’t kiss her.’



Finally, the pitch picture of Verb Topicalization is typically illustrated by (21). Focus accent and pitch peak come on the main syllable of the sentence-initial past participle *kysst*. Pitch extraordinarily falls from the past participle to the negation *ekki*. The final vowel *-a* of the object pronoun *hana* drops before the initial vowel *e-* of the negation, and the latter is pronounced in liaison with the nasal *-n-* of the object pronoun. Duration of the main vowel of the first syllable *han-* of the object pronoun is rather short.

- (21) Kysst hef ég hana ekki.
 kissed have I her not
 ‘I haven’t KISSED her.’



4. Avoidance of lengthening as the cause of Icelandic weak pronoun shift

As introduced in section 3, the remarkable property of the Icelandic intonational system is that the focus of a sentence is realized by focus accent as well as lengthening of either vowels or consonants (Árnason 1999, Gussmann 2002). Thus, focalization of an object pronoun is realized in such a way that it carries the focus accent of a sentence and its main vowel is lengthened. This is illustrated by (17a), in which pitch peak comes on the shifted focus-accented object pronoun *hana* and the vowel of its first syllable *han-* (as well as the final vowel) is lengthened, and by (18b), in which pitch rises towards the

sentence-final focus-accented object pronoun *hana* and the vowel of its first syllable (as well as the final vowel) is lengthened. The data presented in the previous section show that there is another way to produce a focal effect on an object pronoun even when it does not carry the focus accent of a sentence, i.e. by lengthening the vowel of its main syllable. This is illustrated by (18a), in which the vowel of the first syllable *han-* (and the final vowel) of the sentence-final object pronoun *hana* is lengthened, but focus accent and pitch peak come on the main verb *kyssti*. In simple tense forms with OS of weak object pronouns, on the other hand, duration of the main vowel of an object pronoun is rather short, as illustrated by (16a-b). Then, I propose a hypothesis on Icelandic OS as follows:

(22) Icelandic Object Shift:

A weak object pronoun moves to avoid lengthening.

A main verb carries the focus of a sentence and focus accent comes on it in simple tense forms in the unmarked case. An object pronoun can be given a focal effect on itself only by lengthening its main vowel, even when it is not assigned focus accent. Thus, it must move to avoid lengthening and eliminate the focal effect on itself. The same argument applies to the cases of embedded clauses (20) and Verb Topicalization (21). The main verb *kyssti* in an embedded clause carries the focus of a sentence, and focus accent and pitch peak come on it. The contrastively focused past participle main verb *kysst* carries the focus of a sentence in Verb Topicalization, and focus accent and pitch peak come on it. In both cases the focal effect on the object pronoun *hana* must be eliminated by moving it and avoiding lengthening of its main vowel.

A question arises why an object pronoun can avoid lengthening in the shifted position in simple tense forms. Recall the environments in which vowels

are lengthened: when they are either i) word-final, e.g. *frí* [fri:] ‘holiday’, ii) followed by only one consonant, e.g. *von* [vɔ:n] ‘hope (noun)’, which may be followed by another vowel, e.g. *vona* [vɔ:na] ‘to hope (verb)’, or iii) followed by a consonant cluster consisting of [p,t,k,s] and [v,j,r], e.g. *nepja* [nɛ:pja] ‘cold weather’. If an object pronoun is not in any of these environments, lengthening can be avoided. In simple tense forms with OS of weak monosyllabic object pronouns (16a) the first syllable *e-* of the negation *ekki* is pronounced in liaison with the nasal *-nn* of the preceding object pronoun *hann* (23a). In simple tense forms with OS of weak disyllabic object pronouns (16b) the final vowel *-a* of the object pronoun *hana* drops before the initial vowel *e-* of the negation and the latter is pronounced in liaison with the nasal *-n-* of the object pronoun (23b).

- (23) a. *Ég keypti hann ekki.*
 [jə k^heft+an+ehki]¹²
- b. *Ég sá hana ekki.*
 [jə sɔ(w)+an+ehki]¹³

In the situations above the main vowel of an object pronoun is not located in word-final position. It is not followed by a specific kind of consonant clusters either. It is followed by one consonant [n] and another vowel [e] of the negation. However, the negation is a weak sentential element and the initial vowel [e] of the negation is little heard in most cases. In addition, the negation is pronounced with preaspiration, which results in [ehki]. This situation yields the environment in which the main vowel of an object pronoun is followed by the consonants, [n],

¹² The ending vowel *-i* of the main verb *keypti* and the initial [h] of the object pronoun both drop.

¹³ The initial [h] of the object pronoun drops and a linking sound [w] is inserted between the main vowel of the main verb *sá* and that of the object pronoun.

[h], and [k].¹⁴ I argue that owing to this new environment, an object pronoun can get out of any of the three environments given above and avoid lengthening.¹⁵ Lengthening of an object pronoun can in fact occur in the shifted position as illustrated by (17b), in which the vowel of the first syllable *han-* of the shifted object pronoun *hana* is lengthened with focus accent and pitch peak coming on the main verb *kyssti*. Recall that the vowel of the second syllable *-a* is also maintained in the case of focused object pronouns. This produces the environment in which the main syllable of the object pronoun is followed by the sequence of one consonant [n] and another vowel [a].¹⁶

It is predicted from the hypothesis above that an object pronoun cannot avoid lengthening of its main vowel in the position following the negation in simple tense forms. This is attested by the data of simple tense forms without OS of weak object pronouns that were read by one speaker as reference data. The context is that an object pronoun is old information and defocused, i.e. ‘did you buy the car? – no, I didn’t buy it’. Compared with simple tense forms with OS of weak object pronouns (16a-b), the vowel of the main syllable¹⁷ of the monosyllabic object pronoun *hann* (24a) and the vowel of the first syllable *han-* (and the final vowel too) of the disyllabic object pronoun *hana* (24b) are lengthened to a considerable extent. Thus, the fact that lengthening of the main vowel of an object pronoun cannot be avoided in the position following the

¹⁴ The latter two sounds are voiceless in some cases, as illustrated in (20).

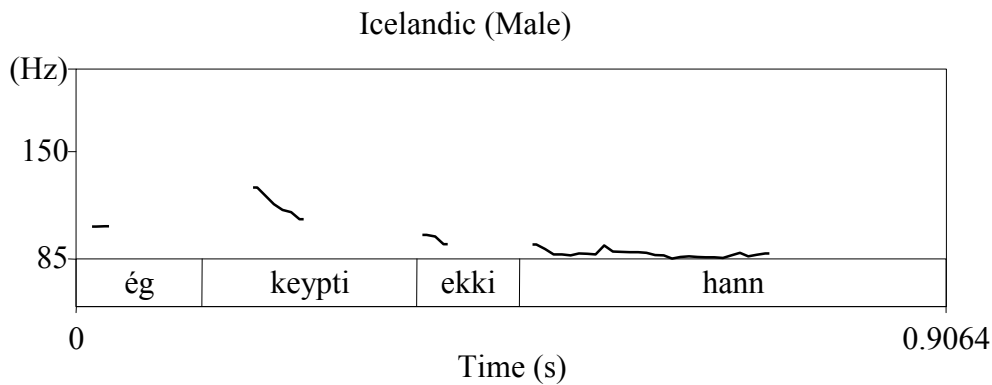
¹⁵ Christer Platzack (p.c.) points out whether the same argument can apply to sentential adverbials other than the negation *ekki*. Detailed phonological properties are not clear for the time being. But when an object pronoun moves across, e.g. *alltaf* ‘always’ and *aldrei* ‘never’, the consonant clusters *-llt-* in the former and *-ldr-* in the latter follow the nasal of the object pronoun. This enables the object pronoun to get out of the three environments in which vowels are lengthened.

¹⁶ In the case of monosyllabic object pronouns such as *hann* the nasal following the main syllable is maintained by being lengthened, i.e. [han:]. This yields the environment in which an object pronoun is followed by one consonant [n].

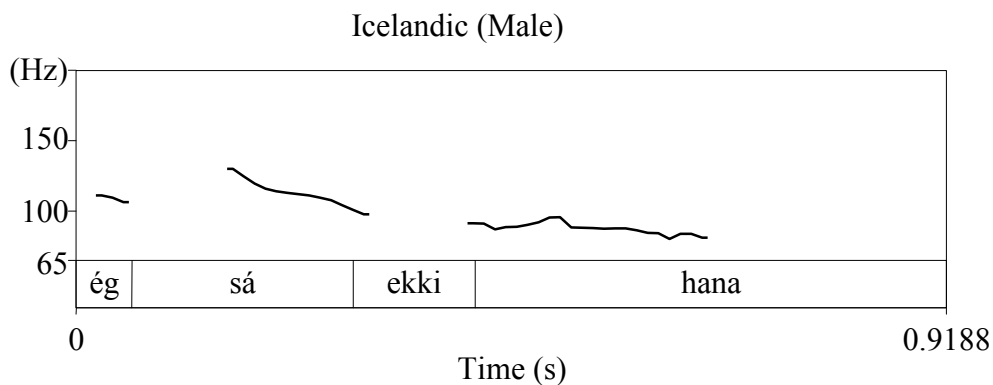
¹⁷ Or the nasal *-nn*. This point does not affect the discussion here.

negation accounts for obligatoriness of Icelandic OS in simple tense forms.¹⁸

- (24) a. Ég keypti ekki hann.
I bought not it
'I didn't buy it.'



- b. Ég sá ekki hana.
I saw not her
'I didn't see her.'



Another prediction is that in the situation in which lengthening can be avoided in situ a weak object pronoun does not move. Recall that in complex tense forms (19) duration of the main vowel of the object pronoun *hann* is rather

¹⁸ The reason why the vowel of the main syllable of an object pronoun is lengthened in this position is derived from the property of the Icelandic pitch accent system that phrasal accent is located on the rightmost constituent in the unmarked case.

short in the position following the past participle *séð*. The question is why the main vowel of an object pronoun can be short in this position. Focus accent is located on the preceding past participle. With the initial [h] dropped, the sequence of the past participle and the following object pronoun is pronounced as if they were one word. Recall that in the compounding process the vowel of the first syllable of the first element may or may not maintain its length, but that of the second element does not keep its length, as illustrated by, e.g. *gler* [klɛ:r] ‘glass’ + *auga* [œi:ɣa] ‘eye’ = *glerauga* [klɛ:rœiɣa] ‘glass eye’. The same situation is produced for the sequence of the past participle and the following object pronoun and the sequence is pronounced like a compound, which enables the main syllable of the in-situ object pronoun to be shortened.¹⁹ Then, I present an account of Holmberg’s Generalization for Icelandic OS as follows: when a focus-accented main verb moves, a weak object pronoun moves to avoid lengthening and eliminate the focal effect on itself. When a weak object pronoun can avoid lengthening in situ, e.g. in complex tense forms in which its main vowel can be shortened after a focus-accented main verb in situ, it does not move.

The account of OS in terms of lengthening further provides an account for the difference between obligatory movement of weak object pronouns and optional movement of strong object pronouns in simple tense forms on one hand, and an account for the difference between movement of strong object pronouns and that of full NPs on the other. First, lengthening of the main vowel of an object pronoun can freely take place both in the shifted position (17a) and in the position following the negation (18b). This accounts for optionality of movement of strong object pronouns. Lengthening, on the other hand, cannot be avoided in the position following the negation (24a-b) but can be avoided in the

¹⁹ Lengthening of the main syllable of an in-situ focused object pronoun can freely take place in complex tense forms, as expected.

shifted position (16a-b). This accounts for obligatoriness of movement of weak object pronouns. Thus, the distribution of weak object pronouns in simple tense forms is strictly dependent on the environments in which lengthening can be avoided. Second, a focused full NP needs both focus accent and lengthening to receive the interpretation of focus. Focus accent is most likely assigned in sentence-final position due to the Icelandic intonational property that phonological prominence is assigned the rightmost constituent in the unmarked case. An object pronoun, on the other hand, can be given a focal effect on itself only by lengthening its main vowel, without being assigned focus accent. Thus, movement of focused full NPs is not possible, whereas movement of strong object pronouns can be optional.

5. Comparison with Swedish Object Shift

In Hosono (2010) I argue on Swedish OS that an object pronoun moves and causes downstep. The focus of a sentence is realized by a focal H contour in Swedish (Bruce 1977). The focus of a sentence is carried by a main verb and focus accent is located on it in the construction that has a weak object pronoun in the unmarked case. The focal effect on another sentential element such as a sentential adverbial that could be produced by an additional focal H contour should be eliminated. Hence, an object pronoun moves and causes downstep. This applies to simple tense forms and Verb Topicalization. In the case in which downstep cannot occur, on the other hand, OS does not occur either. This is the cases of complex tense forms in which pitch must rise towards a focus-accented past participle main verb and embedded clauses in which pitch must rise towards a focus-accented main verb. Holmberg's Generalization for Swedish OS is accounted for as follows: when main verb movement takes place, an object pronoun moves and causes downstep to prevent a focal H contour from arising

after a focus-accented main verb. In the environments in which downstep cannot occur, e.g. in complex tense forms and embedded clauses in which pitch must rise towards a focus-accented main verb in situ, OS does not occur either.

We saw in section 3 that downstep occurs in Icelandic declarative sentences in the unmarked case. The data presented in this paper show that downstep occurs regardless of whether OS applies or not. Though contrastive and non-contrastive focus can both be realized by either H*L or L*H in Icelandic, simple tense forms with OS of weak object pronouns are realized by H*L only. This is illustrated by (16a-b), in which a downstep occurs (extraordinarily in some cases) from the focus-accented main verb *keypti* to the negation *ekki*. The same applies to embedded clauses (20), in which pitch sharply falls from the first syllable *kyss-* of the main verb in an embedded clause *kyssti* that carries the focus of a sentence, and Verb Topicalization (21), in which pitch extraordinarily falls from the main syllable of the past participle *kysst* that carries the focus of a sentence. Simple tense forms with OS of strong object pronouns can also be realized by H*L. This is illustrated by (17b), which is uttered in the way that focus accent is located on the first syllable *kyss-* of the main verb *kyssti* and pitch falls from the pitch peak on it. Even simple tense forms without OS of strong object pronouns can be realized by H*L. This is illustrated by (18a), in which the focus accent of a sentence is located on the first syllable *kyss-* of the main verb *kyssti* and pitch peak comes on it. These data convincingly show that Icelandic OS does not occur due to the requirement to cause downstep, and that Icelandic OS and Swedish OS are caused by different factors. This is not surprising, with the difference in the intonational properties between the two languages taken into account. First of all, Icelandic does not have the kind of word tones that exist in Swedish. In addition, Icelandic has many peculiar phonological and intonational properties, as we saw in section 3. The argument made here that a weak object pronoun moves to avoid lengthening

and eliminate the focal effect on itself indicates that a weak object pronoun moves for its own purpose in Icelandic, whereas an object pronoun moves and arranges the information structure of an entire sentence in Swedish.

In Hosono (2010) I suggest that OS is caused by the interaction between syntactic word order, the information structure of an entire sentence, and the intonational properties of the Scandinavian languages. This claim is extended to Icelandic OS too. Icelandic has the intonational property that the focus of a sentence is realized by focus accent as well as lengthening of either vowels or consonants. An object pronoun can be given a focal effect on itself only by lengthening of its main vowel even when it is not assigned a focus accent. To avoid lengthening a weak object pronoun moves in simple tense forms in which a main verb carries the focus of a sentence in the unmarked case. Thus, Icelandic OS cannot be accounted for with any loss of the three factors given above. Furthermore, the argument that a weak object pronoun moves to avoid lengthening of its main vowel indicates that movement of a weak object pronoun is phonologically motivated to a significant extent. OS is then a purely phonological movement, as suggested by Hosono (2010).

6. Conclusion

In this paper I have discussed Icelandic OS from the perspective of the Icelandic intonational properties. I firstly showed that the arguments based on the Mapping Hypothesis make a wrong prediction for the applicability of OS, and argued that OS should be dealt with as a movement phenomenon different from full NP shift. Then I introduced the experiment carried out to observe the intonational properties of the constructions relevant to Icelandic OS and presented the experimental data. I proposed a new hypothesis on Icelandic OS: a weak object pronoun moves to avoid lengthening. On the basis of the hypothesis

I presented an account of Holmberg's Generalization for Icelandic OS as follows: when a focus-accented main verb moves, a weak object pronoun moves to avoid lengthening and eliminate the focal effect on itself. When a weak object pronoun can avoid lengthening in situ, e.g. in complex tense forms in which its main vowel can be shortened after a focus-accented main verb in situ, it does not move. Comparing Icelandic OS with Swedish OS, I argued that they are caused by different factors.

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Appendix: Test Sentences (for Male Informants)

- A. Keyptir þú bílinn? – Nei, ég keypti hann ekki.
(Did you buy the car? – No, I didn't buy it.)
- A'. Keyptir þú bílinn? – Nei, ég keypti ekki hann.
(Did you buy the car? – No, I didn't buy it.)
- B. Hefur þú séð spurningaþáttinn? – Nei, ég hef ekki séð hann.
(Have you seen the quiz show? – No, I haven't seen it.)
- C. Sást þú Önnu? – Nei, ég sá hana ekki.
(Did you see Anna? – No, I didn't see her.)
- C'. Sást þú Önnu? – Nei, ég sá ekki hana.
(Did you see Anna? – No, I didn't see her.)
- D. Kysstir þú Önnu? – Nei, ég kyssti ekki HANA. En ég kyssti Hönnu.
(Did you kiss Anna? – No, I didn't kiss HER. But I kissed Hanna.)
- D'. Kysstir þú Önnu? – Nei, ég kyssti HANA ekki. En ég kyssti Hönnu.
(Did you kiss Anna? – No, I didn't kiss HER. But I kissed Hanna.)
- E. Hefur þú kysst Önnu?
– Kysst hef ég hana ekki. En ég hef haldið í höndina á henni.
(Have you kissed Anna?)
– No, I haven't KISSED her. But I have held her by the hand.)

F. (Imagine the following conversation continues right after E above.)

Hvað sagðir þú? – Ég sagði að ég kyssti hana ekki.

(What did you say? – I said that I didn't kiss her.)