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**Title:** Object shift in the Scandinavian languages: syntax, information structure, and intonation  
**Issue Date:** 2013-06-19
Summary

This thesis concerns *Scandinavian Object Shift* (OS). In almost all the Scandinavian varieties, a weak, unstressed object pronoun moves across a sentential adverb, whereas a full NP object normally does not move. Specifically, the weak pronominal object *henne* moves across the negation (1a), whereas the full NP object *Marit* must remain in situ. OS is obligatory in some of the Scandinavian varieties, optional in others and absent still in others.

\[(1) \]
\[\begin{align*}
&\text{a. } \textit{Jag kysste (}^{(O)\text{henne)} \text{ inte (}^{(O)\text{henne)}}\text{.} \\
&\quad \text{I kissed her not her} \\
&\quad \text{‘I didn’t kiss her.’}
\end{align*}\]  
\[\begin{align*}
&\text{b. } \textit{Jag kysste (}^{(\text{Marit)} \text{ inte (}^{(O)\text{Marit)}\text{.}} \\
&\quad \text{I kissed Marit not Marit} \\
&\quad \text{‘I didn’t kiss Marit.’}
\end{align*}\]

There is a condition under which an object pronoun can move. In simple tense forms (2a), a main verb moves to the second position. An object pronoun can move too. In complex tense forms (2b), a past participle main verb does not move due to the presence of the Aux(iliary verb). An object pronoun cannot move either. In embedded clauses (2c), verb movement does not take place. An object pronoun cannot move either. This observation is called Holmberg’s Generalization (Holmberg 1986): an object pronoun can move only when verb movement takes place.

\[(2) \]
\[\begin{align*}
&\text{a. } \textit{Jag kysste (}^{(O)\text{henne)} \text{ inte kysste (}^{(O)\text{henne)}\text{.} \\
&\quad \text{I kissed her not her} \\
&\quad \text{‘I didn’t kiss her.’}
\end{align*}\]  
\[\begin{align*}
&\text{b. } \textit{Jag har (}^{(\text{henne)} \text{ inte kysst (}^{(O)\text{henne)}\text{.}} \\
&\quad \text{I have her not kissed her} \\
&\quad \text{‘I haven’t kissed her.’}
\end{align*}\]  
\[\begin{align*}
&\text{c. } \textit{… att jag (}^{(\text{henne)} \text{ inte kysste (}^{(O)\text{henne)} \text{)} \\
&\quad \text{… that I her not kissed her} \\
&\quad \text{‘… that I didn’t kiss her’}
\end{align*}\]

Holmberg’s Generalization indicates that the presence of pronominal movement is dependent on that of verb movement. However, no movement phenomenon other than OS in which movement of a sentential element is dependent on that of another sentential element has been found. Due to this
particular property, OS has long been one of the most controversial issues in generative syntax. Despite much literature on OS, no comprehensive and decisive account of all aspects of OS has been provided yet.

Hence, the research questions are as follows:

i) What principled account can be provided for Holmberg’s Generalization?; and

ii) What principled accounts can be provided for the obligatoriness, optionality and absence of OS, and how are they related to i)?

It is well known that the Scandinavian languages have specific intonational systems, as represented by Bruce (1977) for Swedish, Kristoffersen (2000) for Norwegian, Grønnum (1998) for Danish, and Árnason (2011) for Icelandic and Faroese. Though these works convincingly show that intonational properties are involved in characterizing the overall aspect of the Scandinavian languages, a thorough study of OS from the viewpoint of intonational properties has not been carried out so far. In this thesis, I discuss the constructions relevant to OS from the intonational perspective, by presenting experimental data on all the Scandinavian varieties concerned. I present a new hypothesis on OS and an account of Holmberg’s Generalization on the basis of it. I also present a new generalization on OS from the intonational perspective.

Chapter 2 conducts a thorough literature survey. I introduce the issues associated with OS that have been discussed in the literature. Much literature on OS exists in (mainly Chomskyan) generative syntax. I introduce the approaches taken to account for OS proposed so far, specifically, the semantico-syntactic, purely syntactic and purely phonological approaches. I show that none of these approaches succeeds in providing a principled account of all aspects of OS.

Chapter 3 presents experimental data on OS. Data have been collected from almost all the Scandinavian varieties: Swedish (East, West, South, North, Finland Swedish, Dalecarlian and Övdalian), Norwegian (East and West), Danish (East and South), Icelandic and Faroese. They are all presented in turn.

The overall findings in this work regarding the constructions relevant to OS are as follows: downstep, noticeable lowering of pitch peaks on successive accented words, typically occurs in the OS construction of simple tense forms and Verb Topicalization, but it does not occur in complex tense forms and embedded clauses, which mostly do not have OS, in almost all the Scandinavian varieties investigated. That is, the pitch level on the negation becomes lower than that on the main verb in the OS construction. In complex tense forms and embedded clauses, however, the pitch peak occurs on a sentential/clausal element located ‘after’ the element that cannot be followed by an object pronoun directly, i.e. the Aux and the embedded subject.
Chapter 4 presents the statistical analysis of acoustic data on the incidence and magnitude of downstep in all the Scandinavian varieties investigated. The downstep size has been determined by measuring the pitch maximum in two crucial words (one early, one late) in the sentence and expressing the pitch difference between these peaks in semitones (one semitone is one-twelfth of an octave, which is a doubling of the fundamental frequency F0). The observation in chapter 3 is confirmed: downstep is more likely to occur in the OS construction, whereas non-downstep/upstep is more likely to occur in the non-OS construction.

Chapter 5 provides a theoretical account of the findings on OS. The relation between the presence of OS and that of downstep is described as follows: movement of the object pronoun entails downstep. The relation of 'entailment' expresses that whenever OS takes place, downstep occurs (but not vice versa). This descriptive generalisation is supported by experimental data collected for 13 Scandinavian varieties (presented in chapters 3 and 4). In this chapter, the entailment relationship will be theoretically interpreted as that of 'causation'. I propose the following new hypothesis on OS:

(3) Scandinavian Object Shift:
The object pronoun moves to cause downstep.

In simple tense forms, the focus and focal accent typically occur on a raised main verb. A possible focal effect on sentential element(s) located after it must be eliminated. In complex tense forms and embedded clauses, the focus typically occurs on the in-situ past participle in the former and on the (in-situ) embedded verb in the latter. The final pitch peak occurs on those main verbs. Then, the theoretical account of Holmberg’s Generalization will be provided as follows: When main verb movement takes place, an object pronoun moves and causes downstep to eliminate a focal effect on the sentential element(s) after the main verb. In the environments in which downstep must not occur, i.e. in the constructions where the final pitch peak occurs on the (in-situ) main verb, OS does not occur either.

Whether OS is obligatory, optional or absent depends on whether a relevant Scandinavian variety has an early or delayed pitch gesture: the Scandinavian varieties in which OS tends to be absent, e.g. Övdalian, typically have a delayed pitch gesture, whereas those which have more or less obligatory OS, e.g. East Swedish, have an early pitch gesture. I present the following new generalization on OS:
Scandinavian Object Shift:
The earlier the pitch gesture occurs, the more likely is Object Shift to occur; the more delayed the pitch gesture is, the more likely is Object Shift to be absent.

I argue that OS is not a dichotomous property, i.e. either present or absent, but a gradient phenomenon in the Scandinavian languages.

I propose a system that accounts for the facts on OS as well as the interaction between syntax, information structure and intonation in general. The basic idea is that in theorizing the interaction between syntax, information structure and intonation, only the loci of the sentence focus and the highest pitch peak need to be taken into account; the locus of the highest pitch peak always indicates that the sentence focus is also there (or quite near it). The cross-linguistic prediction from the proposed model is that the farther the focal point moves from an unmarked position, the more an unmarked intonation pattern is likely to change, and the more an unmarked syntactic word order is likely to be affected, which is confirmed in various languages.

Finally, I discuss in which grammatical component OS occurs. I present the following three possibilities. First, no movement including OS can occur in the semantic component in the current Chomskyan framework. Secondly, OS could occur in the phonological component. Movement in phonology, however, cannot be carried out in a principled way under current theoretical assumptions. Thirdly, OS occurs in syntax, driven by the intonational properties. This movement is feasible in the system as proposed here, in which the grammatical components directly interact with each other.

Chapter 6 concludes this thesis. I suggest that contrary to the traditional 'interpretive' phonology in Chomskyan generative grammar, the possibility that the phonological component affects syntax should be seriously taken into account.