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Chapter 6. Conclusion

In this thesis, I have discussed OS from the point of view of the intonational properties of the Scandinavian languages. The experimental data of simple tense forms and Verb Topicalization show that the F0 of the sentential element(s) that follow a main verb is lower than the F0 of the main verb in the OS construction. The experimental data of complex tense forms and embedded clauses show that the pitch peak occurs on a sentential element located at some point after the Aux in complex tense forms and the embedded subject, neither of which can be followed by an object pronoun directly. The new hypothesis on OS has been proposed: the object pronoun moves to cause downstep. The account of Holmberg's Generalization has been 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. On the basis of the fact that the Scandinavian varieties in which OS tends to be absent have a delayed pitch gesture but those in which OS is more or less obligatory have an early pitch gesture, a new generalization on OS has been presented: 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. It has been argued that OS is a gradient phenomenon rather than a binary/dichotomous property in the Scandinavian languages. A system that accounts for the interaction between syntax, information structure and intonation, in which information structure mediates between grammatical components to express the information flow of a sentence, has also been presented. It has been discussed in which component OS occurs. It has been argued that OS occurs in syntax, driven by the intonational properties, which is feasible in the system where the grammatical components directly interact with each other, as proposed here.

In this section, I mention several indications from the arguments in this thesis. First, the recent literature gives Övdalian the status of a language that is independent of the other Scandinavian varieties due to its particular syntactic properties (e.g. Garbacz 2009). However, as far as the absence of OS in it is concerned, Övdalian actually behaves like a Swedish dialect. That is, the absence of OS can be accounted for in the interaction between two variables concerning the intonational properties, i.e. i) one-/two-peaked and ii) early/delayed pitch gesture, in the same way as in the other Swedish varieties. As stated in § 5.1, the absence of OS in Övdalian is derived from its two-peaked but delayed pitch gesture property.
Secondly, the distribution of either obligatory or optional OS geographically coincides with that of either the one- or two-peaked dialects in the Scandinavian countries. East and West Swedish and East and Mid Norwegian, which have two-peaked properties, compose a ‘central Scandinavian axis’ (Bruce 2007:144), whereas the other Mainland Scandinavian varieties, which are spoken in the peripheral areas, share one-peaked properties. OS is more or less obligatory in the former, but OS can be optional and even absent in the latter. As we have seen so far, the obligatoriness of OS is derived from the early pitch gesture in the former, and the optionality and absence of OS from the delayed pitch gesture in the latter. This result is compatible with the prediction in § 2.5: OS is more or less obligatory in the dialects that have word accent/stød, which typically include the two-peaked varieties, whereas OS can be optional in those which do not have word accent/stød, which typically include the one-peaked varieties.148

Thirdly, the issue on the conditions under which stød occurs in (East) Danish has long been one of the debates in Danish phonology (e.g. Basboll 1985, 2005; Grønnum 1998; Gussenhoven 2004; Bruce 2007; Grønnum and Basboll 2007). It has been claimed that the distribution of stød words corresponds to that of accent 1 words, and the distribution of non-stød words to that of accent 2 words; see § 3.2.3. This argument is owed to the observation that monosyllabic words, which have an accent 1 in Swedish and Norwegian, have a stød. However, the environments in which stød actually occurs are not so simple: the condition under which stød occurs or not is determined solely by the morpheme adjacent to a relevant syllable (Basboll 1985).

The data on Danish OS show that the factor that triggers the occurrence of stød is not stress, since a stød can occur in an unstressed syllable, i.e. the second syllable of an accented main verb. The occurrence of stød is triggered by the H on a relevant syllable (cf. § 3.2.3.1), which possibility is not taken seriously, e.g. in Grønnum and Basboll (2007). This argument provides an account for the traditional observations i) that Danish has a LHL contour, and ii) that declination occurs in the unmarked case (e.g. Grønnum 1998, Gussenhoven 2004). That is, on the H point (with or without a stress) of each intonational phrase consisting of a LHL contour, a stød occurs and lowers the pitch level of the following word; this pattern is repeated in turn, which causes declination in an entire sentence. This provides an account for why stød occurs to begin with, i.e. the function of stød: it occurs to lower the pitch level on the following sentential elements (cf. § 3.2.3.1).

Fourthly, the argument made so far indicates that the timing hypothesis represented by Bruce (1977) is in a more appropriate and right direction than the privativity hypothesis (e.g. Riad 1998).149 The privativity

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148 The aspect of the more or less obligatory OS in East Danish is referred to in § 5.1.
149 Kristoffersen (2007) suggests that even for Norwegian, though it has long been analyzed under the privativity hypothesis, the timing hypothesis is more appropriate.
hypothesis determines a basic tonal pattern a dialect takes, e.g. LH in East Swedish. It assumes that the first tone of that basic pattern is associated with an accent in accent 1. It also assumes that in accent 2, an H associated with an accent is added to the basic LH pattern. Thus, it represents accent 1 as L*H and accent 2 as H*LH. The timing hypothesis, on the other hand, assumes that a dialect has the same tonal pattern, e.g. HL in East Swedish, for both accent 1 and accent 2, and that an accent is associated with either H or L respectively. Thus, it represents accent 1 as HL and accent 2 as H*L. In this way, both the privativity hypothesis and the timing hypothesis can account for the fact that the timing difference in word accents exists independently of a tonal pattern in each of the Swedish dialects.

However, the privativity hypothesis can account for the intra-dialectal intonational grammar as stated above but cannot account for the inter-dialectal correlation, whereas the timing hypothesis can account for both of them. The correlation between one dialect that has a certain tonal pattern and another that has a different pattern can be accounted for by the timing hypothesis only, since it accounts for the difference in tonal pattern among the dialects in terms of either early or delayed pitch gesture. That is, East Swedish has an early pitch gesture; thus, its accent 2 is H*L. South Swedish has a delayed pitch gesture; thus, its accent 2 is L*H. The generalization on OS presented in (170) in § 5.1 is also straightforward for the timing hypothesis, since the obligatoriness of OS is attributed to the early pitch gesture, and the optionality and/or absence of OS is attributed to the delayed pitch gesture, in a relevant dialect; see § 5.1. The privativity hypothesis would simply stipulate that East Swedish has H*LH and South Swedish has L*HL as the basic tonal pattern respectively. It could also describe the fact that OS is more or less obligatory in the former but tends to be optional in the latter with that stipulation. But it cannot account for why the fact is so: that OS is obligatory in East Swedish cannot be associated with the fact that OS is optional in South Swedish in this hypothesis.

Finally, the argument in this thesis indicates that the possibility that the phonological component affects syntax should be seriously taken into account. As discussed in § 5.3, Chomskyan generative grammar has the long-term tradition of the ‘interpretive’ model of semantics and phonology. In this model, the syntactic component simply produces a structure to be sent to the semantic and phonological components; the latter components simply receive that structure and assign it some interpretation/phonological properties. In the current phase-cartographic system, the interpretation a category receives in situ must differ from the one it receives in the moved position. Optional movement such as OS that does not affect the change of meaning has to be dealt with as movement in the phonological component. We saw, however, that movement in phonology cannot be carried out in a theoretically principled way in the currently assumed framework.
We have long seen that the obligatoriness, optionality and absence of OS, i.e. all the syntactic behaviors of object pronouns, can be accounted for in a principled way in terms of the intonational properties. It has been suggested in § 5.3 that OS can be syntactic movement driven by the intonational properties, and that such a movement is feasible in the theoretical model in which the grammatical components interact with each other. Thus, contrary to the traditional interpretive phonology, the following possibility should be taken into consideration:

(187) PHONOLOGY DOES AFFECT SYNTAX.