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## **Object shift in the Scandinavian languages : syntax, information structure, and intonation**

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### **Citation**

Hosono, M. (2013, June 19). *Object shift in the Scandinavian languages : syntax, information structure, and intonation*. LOT dissertation series. LOT, Utrecht. Retrieved from <https://hdl.handle.net/1887/20984>

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Cover Page



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**Title:** Object shift in the Scandinavian languages : syntax, information structure, and intonation

**Issue Date:** 2013-06-19

## Chapter 2. Background

### 2.1. Scandinavian Object Shift and related issues

Holmberg (1986) was the first to point out that the presence of pronominal movement is dependent on that of verb movement in the Scandinavian languages: only when a main verb moves, a weak pronominal object can move too (Holmberg's Generalization). Specifically, in simple tense forms in which a main verb moves, an object pronoun can move too (8a-b). OS is obligatory in some of the Scandinavian varieties, but optional in others. An object pronoun cannot move when a main verb does not move, e.g. in complex tense forms in which a main verb past participle does not move due to the presence of an Aux(iliary verb) (9a-b) and in embedded clauses in which main verb movement does not occur (10a-b).

- (8) a. Jag såg den inte [<sub>VP</sub> såg ~~den~~]. [Swe.]  
I saw it not  
'I didn't see it.'
- b. Jag såg inte [<sub>VP</sub> såg den].  
I saw not it  
'I didn't see it.'
- (9) a. Jag har inte [<sub>VP</sub> sett den]. [Swe.]  
I have not seen it  
'I haven't seen it.'
- b. \*Jag har den inte [<sub>VP</sub> sett ~~den~~].  
I have it not seen
- (10) a. ... att jag inte [<sub>VP</sub> såg den] [Swe.]  
that I not saw it  
'... that I didn't see it.'
- b. \*... att jag den inte [<sub>VP</sub> såg ~~den~~]  
that I it not saw

Aside from the basic facts on Holmberg's Generalization described above, there are many other issues related to OS. They are mainly classified into three items as presented below.<sup>6</sup>

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<sup>6</sup> The description of the issues relevant to OS is based on Fretheim and Nilsen (1987),

1. *The presence (and absence) of movement of various kinds of pronominal forms.* Not only an object pronoun but also various kinds of pronominal forms can move; movement of weak pronominal forms is prevented in some cases. Let us see in turn. Monosyllabic reflexives move (11a), but disyllabic reflexives do not move (11b).<sup>7</sup>

- (11) a. Han så (<sup>OK</sup>sig) ikke (\*sig) i spejlet. [Dan.]  
 he saw self not self in the-mirror  
 'He didn't see himself in the mirror.'
- b. \*Han så (\*sigselv) ikke (<sup>OK</sup>sigselv) i spejlet.  
 he saw himself not himself in the-mirror  
 'He didn't see himself in the mirror.'  
 (Erteschik-Shir 2001:53,(5))

An expletive subject (12a) and a quasi-argument subject (12b) move out of a small clause (indicated as SC below) to a higher position across a sentential adverb.

- (12) a. Han tar det mycket sällan [<sub>SC</sub> ~~det~~ lugnt]. [Swe.]  
 he takes it very seldom easy.  
 'He very seldom takes it easy.'  
 (Holmberg 1999:23,(50))
- b. Jeg hørte det ikke [<sub>SC</sub> ~~det~~ regne]. [Dan.]  
 I heard it not rain  
 'I didn't hear it rain.'  
 (Erteschik-Shir 2005a:62,(29))

A pronominal form of an adverb can move, if it is an argument of a verb.<sup>8</sup> Specifically, the pronominal adverbial *där* 'there', being an argument of *bo* 'to live', can move across a sentential adverb such as the negation *inte* (13a), whereas the phrasal adverbial *i London* 'in London' cannot move (13b).

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Holmberg (1986, 1999), Holmberg and Platzack (1995), Hellan and Platzack (1999), Josefsson (1999, 2003), Erteschik-Shir (2001, 2005a), Vogel (2004), Thráinsson (2007), Andréasson (2009), Garbacz (2009), Heycock et al. (2010), and Mikkelsen (2011). Some of the facts introduced below have already been presented by Fretheim and Halvorsen (1975).

<sup>7</sup> Use of *sig/sigselv* is not idiomatic: when available, their alternation is always possible, aside from the class of reflexive verbs such as *ångra sej* 'regret', *uppföra sej* 'behave', *tänka sej* 'imagine', etc, which are always formed with the short reflexive (Anders Holmberg, p.c.).

<sup>8</sup> This is a feature observed in the southern Scandinavian area, e.g. in Danish and South Swedish (e.g. Malmö). Movement of pronominal adverbials does not occur, e.g. in East Swedish (e.g. Stockholm) and Finland Swedish (Anders Holmberg, p.c.).

- (13) a. För tre år sedan bodde han<sup>(OKdär)</sup> inte <sup>(OKdär)</sup>. [Swe.]  
 for three years since lived he there not there  
 ‘Three years ago he didn’t live there.’  
 (Hellan and Platzack 1999:129,(17a))
- b. För tre år sedan bodde han<sup>(\*i London)</sup> inte <sup>(OKi London)</sup>.  
 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))

An indirect object pronoun and a direct object pronoun can move in Double Object Constructions. Except in the construction with a prepositional phrase, the former precedes the latter in the Scandinavian languages. In (14a), both the indirect object pronoun *henne* and the direct object pronoun *den* move across a sentential adverb such as the negation. In (14b), only the former moves and the latter remains in situ. In (14c), they both remain in situ.<sup>9, 10</sup>

- (14) a. Jag gav henne den inte. [Swe.]  
 I gave her it not  
 ‘I didn’t give it to her.’
- b. Jag gav henne inte den.  
 I gave her not it
- c. Jag gav inte henne den.  
 I gave not her it

The Scandinavian languages have a construction called *pro-VP*, which consists of a verb meaning ‘do’ and an object pronoun that takes either a VP or a sentence as its antecedent:

- (15) a. Agnes ville [<sub>VP</sub> köpa boken]<sub>i</sub>, men hon gjorde det<sub>i</sub> inte. [Swe.]  
 Agnes wanted buy the-book but she did it not  
 ‘Agnes wanted to buy the book, but she didn’t.’

<sup>9</sup> It depends on a speaker under which condition(s) (14a-c) can be obtained, since OS is optional.

<sup>10</sup> Holmberg (1986) states that a direct object pronoun can move across an indirect object pronoun when they both move:

- (i) Jag gav den henne inte. [Swe.]  
 I gave it her not  
 ‘I didn’t give it to her.’

According to Josefsson’s (2003) quantitative research, the order in which a direct object pronoun precedes an indirect object pronoun is not acceptable to Swedish speakers, regardless of whether they move or not.

- b. [Köpte Agnes boken?]<sub>i</sub> – Det<sub>i</sub> tror jag inte.  
 bought Agnes the-book it think I not  
 ‘Did Agnes buy the book? – I don’t think so.’  
 (Andréasson 2009:4,(5-6))

This construction has an option for the location of an object pronoun: i) it moves across a sentential adverb (16a); ii) it either remains in situ or moves to sentence-initial position (16b). (16a) means that the speaker intentionally stopped the plan to slap the guy, e.g. due to a change of mind, which is illustrated by the translation ‘do it’. (16b) is a denial of the proposition presented in the preceding sentence, which is illustrated by the translation ‘do so’.

- (16) Du slo ti’n i ansiktet, gjorde du ikke (det)? [Nor.]  
 you slapped him in the-fact did you not it  
 ‘You in fact slapped him, didn’t you do that?’
- a. Nei, jeg gjorde det ikke.  
 no I did it not  
 ‘No, I didn’t do it.’
- b. Nei, jeg gjorde ikke det/Nei, det gjorde jeg ikke.  
 no, I did not it/no, it did I not  
 ‘No, I didn’t do so.’  
 (Fretheim and Nilsen 1987:211,(4))

In copula sentences, an object pronoun in a post-verbal position must move in some cases (17a), but it cannot move in others (17b).

- (17) a. Simon var min lobemakker i fjor, [Dan.]  
 Simon was my running-partner in last-year  
 men han er (<sup>OK</sup>det) ikke (\*det) i år.  
 but he is it not it in year  
 ‘Simon was my running partner last year, but he isn’t (that) this year.’
- b. Den hurtigste spiller på holdet er uden tvivl Morten  
 the fastest player on team-the is without doubt Morten  
 og den højeste er (\*ham) faktisk også (<sup>OK</sup>ham).  
 and the tallest is him actually also him  
 ‘The fastest player on the team is without a doubt Morten and the tallest one/player is actually also him.’  
 (Mikkelsen 2011:258, (3a-b), (5a-b))

2. *Parametric differences among the Scandinavian languages.* There are some differences among the Scandinavian varieties regarding the presence and absence of object movement. It is widely claimed for Icelandic that a strong pronominal object and a full NP object can optionally move (18a), contrary to the other Scandinavian languages (18b).<sup>11</sup> They cannot move in complex tense forms in which the past participle main verb does not move due to the presence of the Aux (18c). 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.

- (18) a. Jón keypti (<sup>OK</sup>HANN/<sup>OK</sup>bók Chomskys) [Ice.]  
 Jón bought it book Chomsky's  
 ekki (<sup>OK</sup>HANN/<sup>OK</sup>bók Chomskys).<sup>12</sup>  
 not it book Chomsky's  
 'Jón didn't buy IT/Chomsky's book.'  
 (Holmberg 1986:229,(205c-f))
- b. De känner (\*HONOM/\*Gunnar) [Swe.]  
 they know him Gunnar  
 alla (<sup>OK</sup>HONOM/<sup>OK</sup>Gunnar).  
 all him Gunnar  
 'They all know HIM/Gunnar.'  
 (Holmberg 1986:223,(193,d))
- c. Jón hefur (\*þessa bók) aldrei lesið (<sup>OK</sup>þessa bók). [Ice.]  
 Jón has this book never read this book  
 'Jón has never read this book.'  
 (Thráinsson 2007:31,(2.26a-b))

Main verb movement generally occurs in Insular Scandinavian embedded clauses. It always occurs in Icelandic embedded clauses, in which OS occurs too (19). In Faroese embedded clauses, a main verb may or may not move. Thus, three word order patterns are considered for the Faroese embedded clause that contains a main verb, the negation and an object pronoun: i) both a main verb and an object pronoun remain in situ (20a); ii) a main verb moves but an object pronoun remains in situ (20b); and iii) both a main verb and an object pronoun move (20c).<sup>13</sup>

<sup>11</sup> 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.

<sup>12</sup> Hereafter, in all notations of examples, I use capital letters for sentential elements that are interpreted as contrastive focus, and lower-case letters for those that are focused in the unmarked case.

<sup>13</sup> According to Heycock et al. (2010), a Faroese embedded clause is in the course of the change

- (19) ... að hann þekki hana ekki [<sub>VP</sub> þekki hana]. [Ice.]  
 that he knows her not  
 ‘... that he doesn’t know her’
- (20) a. ... ið eg ikki [<sub>VP</sub> málaði hana]. [Far.]  
 that I not portrayed her  
 ‘... that I didn’t portray her.’
- b. ... ið eg málaði ikki [<sub>VP</sub> málaði hana].  
 that I portrayed not her  
 ‘... that I didn’t portray her.’
- c. ... ið eg málaði hana ekki [<sub>VP</sub> málaði hana].  
 that I portrayed her not  
 ‘... that I didn’t portray her.’

Despite the presence of (either obligatory or optional) OS in most of the Scandinavian varieties, OS never occurs in Övdalian, the Älvdalen dialect spoken in the Dalarna area, Sweden. This fact was first pointed out by Levander (1909:124): ‘[n]egationen *inte* sättes alltid före objektet’ (‘the negation *inte* is always placed before the object’).<sup>14</sup> Specifically, the object pronoun *ána* ‘it’ follows the negation *it* ‘not’ in simple tense forms (21a).<sup>15</sup> In complex tense forms (21b), the object pronoun *an* ‘it’ follows the past participle *si’tt* ‘seen’ in the same way as in the other Scandinavian varieties. In embedded clauses, a main verb can freely move across the negation, but an object pronoun does not move. Thus in (21c), the object pronoun *an* follows the negation *it* in the same way as in simple tense forms.<sup>16,17</sup>

- (21) a. Ig tjiöpt (\*ána) it (<sup>OK</sup>ána). [Övd.]  
 I bought it not it  
 ‘I didn’t buy it.’

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from the Icelandic type in which verb movement takes place to the Mainland Scandinavian type in which verb movement does not occur.

<sup>14</sup> The translation is by the author.

<sup>15</sup> The negation *it* is a reduced form of *inte*. According to Garbacz (2009:116-118), the negation *inte* changes its form depending on the environments in which it appears. It normally appears in a sentence-medial position and is reduced to either *int* or *it*, with the final vowel [e] dropped. The latter form *it* cannot be focused. Övdalian has another negative form *ijä*, which appears only in either sentence-initial or sentence-final position. I leave this form aside in this work.

<sup>16</sup> Övdalian shares some syntactic properties with Insular Scandinavian. See Hellan and Platzack (1999) and Garbacz (2009).

<sup>17</sup> According to Broekhuis (2008), Finland Swedish and Falster Danish do not have OS either. According to Anders Holmberg (p.c.), OS is optional in Finland Swedish. Erteschik-Shir (2005a,b) reports that OS is optional in South Danish, which includes Falster Danish.



- b. Ig ar (\*an) it si'tt (<sup>OK</sup>an).  
 I have it not seen it  
 'I haven't seen it.'
- c. Ig sagd at ig tjsst (\*an) it (<sup>OK</sup>an).  
 I said that I kissed it not it  
 'I said that I didn't kiss him.'

Object pronouns can not only move across a sentential adverb but also across a subject only in Swedish: *Long OS*. The monosyllabic reflexive *sig* 'self' moves across the negation *inte* and further across the subject *Erik*:

- (22) I går kammade sig Erik inte på hela dagen. [Swe.]  
 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))

The actual situations of Long OS are complicated. An object pronoun cannot move across a subject in *yes-no* questions in the unmarked case: the object pronoun *den* can either remain in situ or move across the negation *inte*, but it cannot further move across the subject *Johan* (23a). However, a monosyllabic reflexive can cross a subject, and even an object pronoun can move across a subject in some cases, as illustrated by *sig* 'self' (23b) and *dig* 'you' (23c).

- (23) a. Köpte (\*den) Johan (<sup>OK</sup>den) inte (<sup>OK</sup>den)? [Swe.]  
 bought it Johan it not it  
 'Didn't Johan buy it?'  
 (Holmberg 1986:170,(17-18))
- b. Slog (<sup>OK</sup>sig) Sara (<sup>OK</sup>sig)?  
 hurt self Sara self  
 'Did Sara hurt herself?'  
 (Holmberg 1986:205,(138e-f))
- c. Gav dig snuten körkortet tillbaka?  
 gave you the cops the driving license back  
 'Did the cops give you back your driving license?'  
 (Holmberg 1986:236,(224d))

When a sentence has several sentence adverbials, an object pronoun moves to the position higher than the highest adverb in all the Scandinavian languages other than Swedish. Only in Swedish can it be located between sentence adverbials (*Adverbial Intermingling*). Specifically, it can be located in any of the

positions indicated below in Swedish, whereas in the Scandinavian languages other than Swedish, it can be located only in the highest position (i.e. between *han* ‘he’ and *ju* ‘indeed’).

- (24) I går läste han (<sup>OK</sup>dem) ju (<sup>OK</sup>dem) alltså [Swe.]  
 yesterday read he them indeed them thus  
 (<sup>OK</sup>dem) troligen (<sup>OK</sup>dem) inte (<sup>OK</sup>dem).  
 them probably them not them  
 ‘Yesterday he probably did not read them, you know.’  
 (Hellan and Platzack 1999:130,(20))

Adverbial Intermingling can be combined with Long OS. The object pronoun *oss* ‘us’ (25) can be located in any of the positions indicated below. The subject *någon myndighet* ‘any authority’ is a negative polarity item. It must be located to the right of the negative phrase *inte längre* ‘not longer’. This indicates that the object pronoun *oss* can move not only across the subject but also across more than one adverbial.

- (25) Nu manar (<sup>OK</sup>oss) ju (<sup>OK</sup>oss) inte längre [Swe.]  
 now urges us as-you-know us not longer  
 (<sup>OK</sup>oss) någon myndighet att äta mer bröd.  
 us any authority to eat more bread  
 ‘We are no longer urged by any authority to eat more bread.’  
 (Holmberg and Platzack 1995:156-157,(6.31))

An object pronoun normally moves across a particle in verb particle constructions in the Scandinavian languages, as illustrated by Danish (26a) and Norwegian (26b). In Swedish (26c) and Övdalian (26d), however, it cannot move.

- (26) a. Jeg skrev (<sup>OK</sup>det) op (\*det). [Dan.]  
 b. Jeg skrev (<sup>OK</sup>det) opp (\*det). [Nor.]  
 c. Jag skrev (\*det) upp (<sup>OK</sup>det). [Swe.]  
 I wrote it up it  
 ‘I wrote it down.’  
 (Holmberg 1999:2,(3a-c))  
 d. Å ar aingt upp eð. [Övd.]  
 she has hung up it  
 ‘She has hung it up.’  
 (Garbacz 2009:84,(10c))

3. *Particular syntactic properties of OS.* Some particular syntactic properties are observed for OS. According to Holmberg (1986), OS is not *A-movement*

(Chomsky 1981), i.e. movement to the position where an argument is located. One of the diagnostics to decide whether a construction is derived by A-movement or not is anaphor licensing (Chomsky 1986). If it is derived by A-movement, an argument raised to the subject position licenses an anaphor but does not license a pronoun. Specifically below, the object pronoun *dem* ‘them’ in the small clause (indicated as SC below) is passivized and raised to the subject position of the main clause.<sup>18</sup> The subject pronoun *de* ‘they’ licenses an anaphor but not a pronoun: it can be coindexed with either *sin* ‘self’ or *varandras* ‘each other’s’, but cannot be coindexed with *deras* ‘their’ (27a). When the pronoun *dem* is ‘Object-Shifted’, it does not license an anaphor in the raised position: it can be coindexed with neither *sin* nor *varandras*, though it can be coindexed with *deras* (27b).

- (27) a. De ansågs till \*deras<sub>i</sub>/sin<sub>i</sub>/varandras<sub>i</sub> [Swe.]  
 they were-considered to their/self’s/each other’s  
 besvikelse [sc dem vara lika bra].  
 disappointment them be equally good  
 ‘To their/each other’s disappointment they were considered to  
 be equally good.’
- b. Han ansåg dem till deras/\*sin/\*varandras  
 he considered them to their/self’s/each other’s  
 besvikelse [sc dem vara lika bra].  
 disappointment them be equally good  
 ‘To their disappointment he considered them to be equally  
 good.’  
 (Holmberg and Platzack 1995:148,(6.17a-c))

Nor is OS *A’-movement* (Chomsky 1981), i.e. movement to the position where a non-argument like an operator is located. Two diagnostics, Weak Crossover (Chomsky 1981) and parasitic gap licensing (Chomsky 1982), are presented to decide whether the construction is derived by A’-movement. First, an operator is subject to Weak Crossover, a phenomenon in which the trace/copy of an operator cannot be coindexed with a pronoun that does not c-command it.<sup>19</sup> Below, the possessive pronoun *hans* ‘his’ is contained in the prepositional phrase *i hans frånvaro* ‘in his absence’ and does not c-command *vem* ‘who’ in the original position. When *hans* is coindexed with the copy of *vem* in the original

<sup>18</sup> *Dem* is an Acc(usative) form, whereas *de* is a Nom(inative) form. The pronunciation does not differ, though: both forms are pronounced like [dom].

<sup>19</sup> Strong Crossover is a phenomenon in which the copy of an operator cannot be coindexed with a pronoun that c-commands it. The copy of the *wh*-phrase *who* cannot be coindexed with the pronoun *he* that is located in the subject position and c-commands it:

(i) \*Who<sub>i</sub> does he<sub>j</sub> love ~~who~~<sub>i</sub>?

position after the latter moves to sentence-initial position, the sentence is judged odd and not fully acceptable (28a). But when *hans* is coindexed with the copy of the object pronoun *honom* ‘him’ after the latter is ‘Object-Shifted’, the sentence is judged grammatical (28b).

- (28) a. ?Vem<sub>i</sub> tilldelade de i hans<sub>i</sub> frånvaro ~~vem<sub>i</sub>~~ priset? [Swe.]  
 who awarded they in his absence the-prize  
 ‘Who<sub>i</sub> did they award the prize in his<sub>i</sub> absence?’
- b. De tilldelade honom<sub>i</sub> i hans<sub>i</sub> frånvaro ~~honom<sub>i</sub>~~ priset.  
 they awarded him<sub>i</sub> in his<sub>i</sub> absence the-prize  
 ‘They awarded him<sub>i</sub> in his<sub>i</sub> absence the prize.’  
 (Holmberg and Platzack 1995:147,(6.15a-b))

Second, the NP *den artikeln* ‘that article’ functions as a (focus) operator when it is left-dislocated (29a), but it is not an operator in the subject position (29b). In the former case, but not in the latter, it licenses a gap: a pronoun that should appear inside the adjunct clause (, which is expressed by *e*,) can be absent in the former but not in the latter. An ‘Object-Shifted’ pronoun does not license a parasitic gap in the moved position: a pronoun inside the adjunct clause cannot be absent (29c). These facts indicate that a shifted object pronoun is not an operator.

- (29) a. Den artikeln kastade de ~~den artikeln~~, [Swe.]  
 that article threw they  
 innan jag hade läst *e*.  
 before I had read  
 ‘That article, they threw away before I had read.’
- b. \*Den artikeln kastades ~~den artikeln~~, innan jag hade läst *e*.  
 that article was-thrown before I had read  
 ‘\*That article was thrown before I had read.’
- c. \*Jag kastade den inte ~~den~~, innan jag hade läst *e*.  
 I threw it not before I had read  
 ‘\*I didn’t throw it before I had read.’  
 (Holmberg and Platzack 1995:146,(6.14a-c))

Finally, OS is blocked not only when a main verb does not move but also when any other visible category is left VP-internally. A preposition (30a-b), an indirect object (31a-b) and a verb particle (32a-b) all prevent an object pronoun from moving.

- (30) a. Jag talade inte [<sub>VP</sub> ~~talade~~ med henne]. [Swe.]  
 I spoke not with her  
 'I didn't speak with her.'
- b. \*Jag talade henne inte [<sub>VP</sub> ~~talade~~ med henne].  
 I spoke her not with
- (31) a. Jag gav inte [<sub>VP</sub> ~~gav~~ Elsa den].  
 I gave not Elsa it  
 'I didn't give it to Elsa.'
- b. \*Jag gav den inte [<sub>VP</sub> ~~gav~~ Elsa ~~den~~].  
 I gave it not Elsa
- (32) a. De kastade inte [<sub>VP</sub> ~~kastade~~ ut mig].  
 they threw not out me  
 'They didn't throw me out.'
- b. \*De kastade mig inte [<sub>VP</sub> ~~kastade~~ ut mig].  
 they threw me not out  
 (Holmberg 1999:2,(2a-c))

I briefly summarize the facts on OS presented above. First, various kinds of pronominal forms can move. Not only an argument object pronoun but also a pronominal adverbial and an expletive pronoun can move. There are some cases in which OS is prevented. Second, OS is optional in (some of) the Scandinavian varieties; OS is absent in others, e.g. in Övdalian. Swedish shows some properties that are different from the other Scandinavian varieties. Third, it is possible that OS may not be a syntactic movement, since it is neither A-movement nor A'-movement. In the following sections, we investigate whether the facts on OS presented above can be accounted for in terms of the semantico-syntactic, syntactic and phonological approaches.<sup>20</sup> We will see that none of them can provide a principled account for all aspects of OS.<sup>21</sup>

<sup>20</sup> I use the terminology *phonological* to refer to the studies based on theoretical phonology such as the prosodic structure theory (e.g. Nespor and Vogel 1986), distinguishing them from studies in experimental phonetics (e.g. Bruce 1977). I also use the terminology *phonology/phonological* to refer to theory-internal categories in generative grammar, e.g. *the phonological component*, etc.

<sup>21</sup> There are other issues related to OS that have been discussed in the literature. i) Transitive Expletive Constructions (e.g. Bobaljik and Jonas 1996). In normal expletive constructions (ia), the position of a subject can be flexible. In Transitive Expletive Constructions (ib), a transitive verb occurs with an expletive, and a subject must be located between the Aux and the past participle. ii) Negative/quantifier movement (e.g. Rögnvaldsson 1987). A negative phrase (and a small class of quantifiers) must move to the position between the Aux and the past participle.

## 2.2. Syntax and semantics of Scandinavian Object Shift

Holmberg (1986) originally proposed a Case-theoretic account of OS. A phonetically visible argument must be assigned Case by a Case assigning category adjacent to it (Chomsky 1981). Pronouns of the Scandinavian languages are inflected for Case and do not need to be assigned Case any more. They can move and appear in a position not adjacent to a Case assigning category. Not only pronouns but also all NPs are inflected for Case in Icelandic, whereas only pronouns are inflected for Case in the other Scandinavian varieties. Thus, object pronouns as well as full NPs can move in the former, but only object pronouns can move in the latter. This Case-theoretic account of OS had long been assumed in much of the literature from then on, despite the modification of the theoretical framework (e.g. Holmberg and Platzack 1995, Chomsky 1995). Hellan and Platzack (1999) argue that Long OS is possible when a pronoun has an Acc(usative) Case form different from a Nom(inative) Case form. Swedish has, for the first person plural, both the Nom form *vi* ‘we’ and the Acc form *oss* ‘us’, which allows Long OS (33a). But Swedish has only one form for the third person plural, which makes Long OS impossible (33b).<sup>22,23</sup>

- (33) a. Nu befallde (<sup>OK</sup>oss)rånaren (<sup>OK</sup>oss) att vara tysta. [Swe.]  
 now ordered us the-thief us to be silent  
 ‘Now the thief ordered us to be silent.’

- 
- (i) a. Það hefur (<sup>OK</sup>einhver köttur) verið (<sup>OK</sup>einhver köttur) í eldhúsinu. [Ice.]  
 there has some cat been some cat in kitchen-the  
 ‘There has been some cat in the kitchen.’  
 b. Það hefur (<sup>OK</sup>einhver köttur) étið (<sup>\*</sup>einhver köttur) mýsna.  
 there has some cat eaten some cat mice-the  
 ‘Some cats has eaten the mice.’  
 (Vangsnes 2002:44-45,(1a-b),(3a-b))
- (ii) Strákarnir höfðu (<sup>OK</sup>engu grjóti) hent (<sup>\*</sup>engu grjóti) í bílana.  
 boys-the had no rock thrown no rock in cars-the  
 ‘The boys had thrown no rocks at the cars.’  
 (Svenonius 2000:5,(12a-b))

The former concerns the information structure of an entire sentence: an expletive construction is sentence-focus, which contains all-new information (Lambrecht 1994). The latter concerns a constraint on negative phrases that they must move to the third position in a sentence. As these constructions do not concern movement of weak pronominal objects, I do not discuss them in this thesis.

<sup>22</sup> See footnote 18. Hellan and Platzack also argue that in Adverbial Intermingling (24), a moved object pronoun may not always be adjacent to a main verb in Swedish.

<sup>23</sup> The Case-theoretic account is not sufficient to explain, e.g. movement of pronominal adverbials, since they do not have Case. In his new account of OS, Holmberg (1999) rejects the Case-theoretic account with many convincing arguments against it. Thus, I do not refer to the Case-theoretic account from now on in this thesis.

- b. Nu befallde (\*dem) rånaren (<sup>OK</sup>dem) att vara tysta.  
 now ordered them the-thief them to be silent  
 'Now the thief ordered them to be silent.'  
 (Hellan and Platzack 1999:133,(26-27))

Since Chomsky (1995) referred to the problem that OS raises for a new theoretical framework, the *Minimalist Program*, studies on OS have been conducted widely. In the previous framework so far, *Agr*, a functional head on which agreement  $\varphi$ -features is located, was assumed. The phrase structure at that time is illustrated in (34a). It was supposed that a subject and an object check their Case feature by moving to [Spec,AgrSP] and [Spec,AgrOP] respectively. Movement was formulated in terms of the *Minimal Link Condition*, which states that a category closer to the target is allowed to move. On this assumption, it would be Subj, not Obj, that is closer to the target position [Spec,AgrOP], as can be seen in (34a). This problem was solved by assuming i) that if two categories are in the same minimal domain (i.e. in a maximal projection), they are equidistant from a target position, and ii) that verb movement extends a minimal domain. Thus, by assuming that a verb moves from V to AgrO, a minimal domain is extended to include not only VP but also AgrOP. This paves the way to making both Subj and Obj equidistant from [Spec,AgrOP], which enables Obj to move to that target position across Subj, as illustrated in (34b). In this way, the presence of verb movement was well associated with that of object movement (Chomsky 1995:298-299): the presence of verb movement enables an object pronoun to move. However, it was argued that categories like Agr that do not affect the meaning of a sentence should be eliminated (Chomsky 1995:349-351). On the assumption of the *vP shell* structure (Larson 1988), in which a functional head *v* that specifies the properties of a verbal category takes VP as its complement and Subj as its Specifier (34c), AgrO was eliminated by assuming that Obj moves to the (outer) Spec of v. AgrS was eliminated by assuming that Subj moves to [Spec,TP] (Chomsky 1995:352-354). Note that main verb movement is irrelevant to object movement in this new system: Obj simply moves to (the outer) [Spec,vP] regardless of whether a verb moves to v or not. Thus, Holmberg's Generalization, i.e. the dependency of the presence of object movement on that of verb movement, was taken to be one of the greatest problems in this new derivational system.

- (34) a. [AgrSP AgrS [TP T [AgrOP AgrO [VP Subj V Obj]]]]  
 b. ... [AgrOP Obj V+AgrO [VP Subj ~~Obj~~]]  
 c. [TP Subj T [vP Obj [vP ~~Subj~~ v [VP V ~~Obj~~]]]]

Diesing (1992, 1997) was the first to associate the presence or absence of movement of arguments with their interpretive properties. According to the hypothesis she proposes, the *Mapping Hypothesis*, the arguments interpreted as non-specific, new to the discourse and/or focused remain inside VP, whereas those interpreted as specific, old information and/or defocused must move out of VP. Specifically, the following patterns of OS are predicted according to this hypothesis. An indefinite NP object does not move due to its non-specific status (35a). It can move, e.g., when focalization of a main verb makes it defocused (35b). Though not impossible, an unshifted definite NP object is awkward for its presupposed status (i.e. the status as an old information), which forces it to move out of VP. When it is contrasted with others, it can receive an interpretation like new/unexpected information and remain in situ (35c). An indefinite pronoun is interpreted as non-specific and remains inside VP (35d). A definite pronoun is old information and moves out of VP (35e).

- (35) a. Hann las (\*bækur) ekki (<sup>OK</sup>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))
- c. Jón keypti (<sup>OK</sup>bókina/<sup>OK</sup>þessa bók)  
 Jón bought the-book this book  
 ekki (<sup>OK</sup>bókina/<sup>OK</sup>þessa bók).  
 not the-book this book  
 ‘Jón didn’t buy the book/this book.’  
 (Diesing 1997:417-418,(78,81))
- d. Jeg har ingen paraply, [Nor.]  
 I have no umbrella  
 men jeg køper(\*en) muligens (<sup>OK</sup>en) i morgen.  
 but I buy one possibly one Tomorrow  
 ‘I have no umbrella, but I will possibly buy one tomorrow.’  
 (Diesing 1997:413,(74-75))
- e. Hann las (<sup>OK</sup>þær) ekki (\*þær). [Ice.]  
 he read them not them  
 ‘He didn’t read them.’  
 (Diesing 1997:413-414,(76))



Diesing's Mapping Hypothesis has long been the basis of the semantics of OS in the literature (Collins and Thráinsson 1996; Holmberg 1999; Chomsky 2001; Sells 2001; Vikner 2001; Erteschik-Shir 2005a,b; Broekhuis 2008; among others).

Holmberg (1999) presents the data of an OS construction, *Verb Topicalization*, a contrastive verb-focus construction in which a past participle moves to sentence-initial position and OS also occurs (36a), as proof that the presence of pronominal movement is dependent on that of verb movement. He argues that after the past participle *kysst* moves to [Spec,CP], no category is left inside VP, which paves the way to movement of the object pronoun *henne* (36b).

- (36) a. Kysst har jag henne inte (, bara hållit henne i handen).[Swe.]  
 kissed have I her not only held her by the-hand  
 'I haven't KISSED her (, only held her in the arms).'
- (Holmberg 1999:7,(11a))
- b. [CP kysst ... [TP ... henne ... [VP ... ~~kysst~~ henne]]]

Rejecting the Case-theoretic account of OS (Holmberg 1986, Holmberg and Platzack 1995), Holmberg (1999) proposes a new account of OS by associating the presence of OS with the defocused status of an object pronoun. Based on the Mapping Hypothesis (Diesing 1992), it is argued that OS applies to either an unstressed pronoun or a nominal that is definite, specific, light and/or defocused. OS does not occur when any visible category including a main verb is left VP-internally as illustrated in (30-32), which are repeated below:

- (37) a. Jag talade (\*henne) inte [VP ~~talade~~ med (<sup>OK</sup>henne)]. [Swe.]  
 I spoke her not with her  
 'I didn't speak with her.'
- b. Jag gav (\*den) inte [VP ~~gav~~ Elsa (<sup>OK</sup>den)].  
 I gave it not Elsa it  
 'I didn't give it to Elsa.'
- c. De kastade (\*mig) inte [VP ~~kastade~~ ut (<sup>OK</sup>mig)].  
 they threw me not out me  
 'They didn't throw me out.'

It is claimed that when a category that is assigned [+Foc(us)] remains inside VP, a defocused object that is assigned [-Foc] is licensed in situ. When none of such categories remains inside VP, a defocused object with [-Foc] must move to the position adjacent to a category with [+Foc] that can license it. Based on Halle

and Marantz (1993), Holmberg claims that  $[\pm\text{Foc}]$  is introduced when phonological features are also introduced, thus, OS is a post-syntactic/phonological operation.

Chomsky (2000), developing the Minimalist Program framework (Chomsky 1995), proposes a new computational system, *phase* theory. Syntactic derivations now proceed by *Merge*, an operation that takes two syntactic objects (either lexical items or phrases) and combines them. A phase is a domain in which a series of such syntactic operations are conducted.  $v^*$  (a functional head that specifies the category of a transitive verb) and C are assumed to be phasal heads. A phase in which a series of required syntactic operations have been completed is sent to the phonological component and is no longer accessed by further syntactic operations. This derivational point is called *Spell-Out* S-O. At the S-O of a phase, the complement of a phasal head is spelled out, by assumption. Specifically, when  $v^*\text{P}$  and CP are spelled out, the complement of  $v^*$  and that of C, i.e. VP and TP, are sent to the phonological component, and they are no longer accessed by any further syntactic operation. The *EPP* ('Extended Projection Principle'), the condition that a functional head requires an overt category in its Spec (especially referring to the requirement of a sentential subject, Chomsky 1981, 1986, 1995), is now formulated as the feature that triggers movement in general. A phasal head can have an EPP feature and raise an argument to its Spec when a new semantic effect is produced on the argument. In *wh*-movement as illustrated by 'what did you eat?', for instance, the *wh*-phrase *what* is interpreted not only as an object argument of the main verb but also as a *wh*-operator. A phasal head C can have an EPP feature and raise the *wh*-phrase to its Spec. In the moved position, the *wh*-phrase obtains the interpretation as a *wh*-operator that it could not receive in the original argument position.<sup>24</sup>

Under phase theory, and also on the (tacit) assumption of the Mapping Hypothesis (Diesing 1992), Chomsky (2001) presents an account of OS in the following way: only when an object rejects the interpretation that it receives in the base-generated position, is the EPP assigned to a phasal head and OS applies. Specifically, after all VP-internal categories have moved out of VP, an object is assigned the interpretation as focus and/or new information, by the rules of information-structure in the Scandinavian languages. If the object is a full NP, e.g. *Marit*, there is no problem;  $v^*$  is not assigned the EPP (38). But the object pronoun *henne* rejects such an interpretation.  $v^*$  is assigned the EPP, and the object pronoun moves to  $[\text{Spec}, v^*\text{P}]$ . In the moved position, the object pronoun receives an interpretation which is consistent with its

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<sup>24</sup> See a series of the papers by Chomsky (2000, 2001, 2004, 2008, 2013) for the details of a new derivational mechanism that consists of the *probe-goal* system and a syntactic operation called *Agree*, in which a functional head probes a category acting as its goal and the uninterpretable  $\varphi$ -features of the former are valued by the interpretable counterpart of the latter.

(inherent) categorical property, i.e. defocused and/or old information (39). Movement of the object pronoun to the position between the main verb and the negation where it is actually spelled out is claimed to be phonological movement.

- (38) a. Jag kysste inte Marit. [Swe.]  
 I kissed not Marit  
 ‘I didn’t kiss Marit.’
- b. ... [<sub>v\*P</sub> inte [<sub>v\*P</sub> v\* [<sub>VP</sub> ~~kysste~~ Marit]]]  
 [EPP] ↑ focus/new info.
- (39) a. Jag kysste henne inte. [Swe.]  
 I kissed her not  
 ‘I didn’t kiss her.’
- b. ... [<sub>v\*P</sub> inte [<sub>v\*P</sub> henne [<sub>v\*P</sub> v\* [<sub>VP</sub> ~~kysste~~ henne]]]  
 [EPP] ↑ defocus/old info.

In Chomsky’s system, movement of an object pronoun is string-vacuous: it moves to [Spec,v\*P] before the negation merges with v\*P. The word order between the shifted object pronoun and the negation is not affected, and the negation still precedes the object pronoun after it merges to v\*P. Thus, on the assumption that movement of an object pronoun to the actually spelled-out position takes place in the phonological component, his system will provide an account for parametric differences among the Scandinavian languages, i.e. not only the obligatory OS in some Scandinavian varieties but also the optional OS in other varieties and the absence of OS in Övdalian.

On the basis of the Mapping Hypothesis (Diesing 1992), it is predicted i) that an object pronoun that carries new information and/or focus could not move, and ii) that an object pronoun that is old information and/or defocused could not remain in situ. Neither of the predictions is attested, however. First, a strong pronominal object can optionally move in Icelandic, as we saw in § 2.1. In addition, a shifted weak pronominal object can carry part of new information and/or focus (Engdahl 1997; Sells 2001; Hosono 2006, 2007).<sup>25</sup> A typical case of sentence-focus illustrated in (40a) 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 (40b). The answer sentence has a topic-comment

<sup>25</sup> I thank Gisbert Fanselow (p.c.) for an intensive discussion regarding whether a pronoun can be part of focus/new information or not.

structure in which the subject is a topic and the predicate carries the focus, giving a comment on the subject (Lambrech 1994). In both these cases, the object pronoun *mig* ‘me’ can move across the sentential adverb *alltid* ‘always’. It might be argued that object pronouns such as the first person are the most salient in the discourse, which enables them to move. However, the speaker who asks the question above does not need to know in advance the context such that the addressee and John love each other, etc. In that sense, object pronouns can fully carry part of new information in the contexts above.<sup>26</sup>

- (40) a. *Sentence-focus*:  
 What’s up? – [<sub>Foc</sub> John always kisses me (in presence of others!)].  
 (i) <sup>OK</sup>Jan kysser mig alltid. [Swe.]  
       Jan kisses me always  
       ‘Jan always kisses me.’  
 (ii) <sup>OK</sup>Jan kysser alltid mig.
- b. *Predicate-focus*:  
 What did John always do? – He always [<sub>Foc</sub> kissed me].  
 (i) <sup>OK</sup>Han kysste mig alltid. [Swe.]  
       he kissed me always  
       ‘He always kissed me.’  
 (ii) ?Han kysste alltid mig.

Regarding the second prediction, recall that an object pronoun can be prevented from moving in some copula sentences (17b), which is repeated below:

- (41) Den hurtigste spiller på holdet er uden tvivl Morten [Dan.]  
 the fastest player on team-the is without doubt Morten  
 og den højeste er (\*ham) faktisk også (<sup>OK</sup>ham).  
 and the tallest is him actually also him  
 ‘The fastest player on the team is without a doubt Morten and the  
 tallest one/player is actually also him.’

According to Mikkelsen (2011), in the (second) copula sentence above, the referent of the subject is identified by a post-copular phrase. This statement indicates that the post-copular domain is focused. In (41), the object pronoun *ham* refers back to the already presented *Morten*, thus it is old information and/or defocused. This case shows that an object pronoun that is old information and/or defocused can be included in a focus domain and

<sup>26</sup> See Ariel (2000), who claims that the more accessible an individual is, the more likely he/she is referred to by a pronoun or even a zero form.

prevented from moving.<sup>27</sup>

In sum, OS applies not only when an object pronoun is old information and/or defocused, but also when it carries (part of) new information and/or focus. OS is prevented not only when an object pronoun carries new information and/or focus, but also when it is old information and/or defocused. These facts indicate that the semantic effects that are imposed on an object pronoun itself are not decisive for the application of its movement, thus, the trigger of OS cannot be attributed to them.

The semantico-syntactic approach represented by Diesing and Chomsky has difficulty in accounting for e.g. the fact that not only an argument object pronoun but also an expletive pronoun moves, as illustrated in (12a-b). Expletives do not have any meaning themselves, thus are neither focused nor defocused. It also has difficulty in accounting for the fact that OS does not appear to be a syntactic movement. Chomsky (2001), for instance, assumes that an object pronoun moves to [Spec,v\*P] in syntax and there it is assigned the interpretation as defocused. Movement of arguments to [Spec,v\*P] is assumed to be A-movement. As we saw in the previous section, however, OS is not A-movement. And more than anything else, the defocused status of a shifted pronominal object itself does not account for Holmberg's Generalization. On the assumption of the Mapping Hypothesis, a defocused pronominal object could move even when a main verb does not move, e.g. in complex tense forms, contrary to fact. The literature that adopts the semantico-syntactic approach then simply assumes that OS can apply after VP is vacated.<sup>28</sup>

The argument above also indicates that OS should be dealt with as a type of movement different from full NP shift, where a new interpretation different from the one in the original position is always produced on a raised NP. A shifted full NP is interpreted as defocused, specific and/or old information, whereas a non-shifted full NP is interpreted as focus and/or new information in the unmarked case. In the cases in which a full NP carries only part of focus/new information, it does not move. The context below is VP-focus. The VP *reads War and Peace* carries the focus of the answer sentence. The NP *War and Peace* carries only part of the focus. In this context, the NP cannot move across a sentential adverb, as illustrated in (42b).

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<sup>27</sup> Mikkelsen argues that the object pronoun itself carries focus in this case. However, that the post-copular domain is focused is owed to the presence of two modifying adverbials, *faktisk* 'actually' and *også* 'also'. This can be seen from the fact that removing them from the second copula-clause turns the entire sentence ungrammatical:

(i) \*The fastest player on the team is without doubt Morten, and the tallest (one) is him.

<sup>28</sup> For instance, Chomsky (2001) assumes that when VP is vacated, the EPP may or may not be assigned to v\*, as we saw above; when VP is not vacated, e.g. in complex tense forms, the option of assigning the EPP to v\* is not allowed, which prevents an object pronoun from moving.

- (42) *Predicate-focus:*  
 What does John do during his vacation?  
 – He always [<sub>Foc</sub> reads War and Peace].
- a. Hann les alltaf Stríð og frið. [Ice.]  
 he reads always War and Peace  
 ‘He always reads War and Peace.’
- b. \*Hann les Stríð og frið alltaf.  
 (Thráinsson 2007:76,(2.108))

### 2.3. Purely syntactic accounts of Scandinavian Object Shift

Nilsen (2003) presents an account of OS in terms of *remnant movement* (Besten and Webelhuth 1987). In this movement system, (more than) one category has already moved out from a projection, and the latter contains the trace(s). It is assumed that a functional head can attract such a projection to its Spec. (43) illustrates an example of a derivation. A head X merges with its internal complement ZP and also with the external complement YP, which derives XP (43a). A functional head U merges with XP, and X moves to that head. YP also moves to [Spec,UP] (43b). Another functional head S merges with UP and attracts to its Spec XP from which X and YP have already moved out (43c). The way of derivation implies that ZP does not move by itself, but it remains inside XP and is moved as part of the projection of XP.

- (43) a. [<sub>XP</sub> YP [X ZP]]  
 b. [<sub>UP</sub> YP X+U [<sub>XP</sub> ~~YP~~ [~~X~~ ZP]]]  
 c. [<sub>SP</sub> [<sub>XP</sub> ~~YP~~ [~~X~~ ZP]]] S [<sub>UP</sub> YP X+U [~~XP~~ ~~YP~~ [~~X~~ ZP]]]]

On the assumption that an adverb is a functional head, the word order of simple tense forms, e.g. (Swe.) *jag såg den inte* (I saw it not ‘I didn’t see it’), is derived as follows. A main verb *såg* merges with an object pronoun *den* and a subject *jag*, which derives VP (44a). A functional head Fin(ite) merges with VP and *såg* moves to that head (44b). A functional head Top(ic) merges with FinP and *jag* moves to [Spec,TopP] (44c). A sentential adverbial *inte* merges with TopP as a functional head Adv(erb) and attracts TopP to its Spec (44d).

- (44) a. [VP jag såg den]  
 b. [<sub>FinP</sub> såg+Fin [VP jag såg den]]  
 c. [<sub>TopP</sub> jag Top [<sub>FinP</sub> såg+Fin [VP jag såg den]]]  
 d. [<sub>AdvP</sub> [<sub>TopP</sub> jag Top [<sub>FinP</sub> såg+Fin [VP jag såg den]]]] inte  
~~[<sub>TopP</sub> jag Top [<sub>FinP</sub> såg+Fin [VP jag såg den]]]]~~

The word order of complex tense forms, e.g. (Swe.) *jag har inte sett den* (I have not seen it 'I haven't seen it'), is derived as follows. The past participle *sett* merges with an object pronoun *den*, which derives PartP. The Aux *har* merges with PartP and the subject *jag*, which derives VP (45a). Fin merges with VP and *har* moves to that head (45b). Top merges with FinP and *jag* moves to [Spec,TopP] (45c). A functional head Foc(us) merges with TopP and attracts PartP to its Spec (45d). A functional head W, which is assumed to specify scopal properties, merges with FocP and attracts TopP to its Spec (45e). The sentential adverb *inte* merges with WP as an Adv head and attracts TopP to its Spec (45f).

- (45)
- a. [VP jag har [PartP sett den]]
  - b. [<sub>FinP</sub> har+Fin [<sub>VP</sub> jag har [PartP sett den]]]
  - c. [<sub>TopP</sub> jag Top [<sub>FinP</sub> har+Fin [<sub>VP</sub> jag har [PartP sett den]]]]
  - d. [<sub>FocP</sub> [PartP sett den] Foc [<sub>TopP</sub> jag Top [<sub>FinP</sub> har+Fin [<sub>VP</sub> jag har [PartP sett den]]]]]
  - e. [<sub>WP</sub> [<sub>TopP</sub> jag Top [<sub>FinP</sub> har+Fin [<sub>VP</sub> jag har [PartP sett den]]]]] W [<sub>FocP</sub> [PartP sett den]] Foc [<sub>TopP</sub> jag Top [<sub>FinP</sub> har+Fin [<sub>VP</sub> jag har [PartP sett den]]]]]
  - f. [<sub>AdvP</sub> [<sub>TopP</sub> jag Top [<sub>FinP</sub> har+Fin [<sub>VP</sub> jag har [PartP sett den]]]]] inte [<sub>WP</sub> [<sub>TopP</sub> jag Top [<sub>FinP</sub> har+Fin [<sub>VP</sub> jag har [PartP sett den]]]]] W [<sub>FocP</sub> [PartP sett den]] Foc [<sub>TopP</sub> jag Top [<sub>FinP</sub> har+Fin [<sub>VP</sub> jag har [PartP sett den]]]]]

Nilsen claims that a weak pronominal object does not move by itself since it remains inside VP (44)/PartP (45) and is raised as part of a projection, TopP (44d)/PartP (45d). He argues that the fact that OS is blocked when any visible category is left VP-internally is accounted for if it is not an object pronoun itself but VP that actually moves: not moving out of VP, an object pronoun does not cross any category left inside VP.

After the theoretical change, it is dubious whether the remnant movement system can be maintained in the current Chomskyan framework. When remnant movement was proposed, the presence of parametric differences in syntactic derivations was accepted (Chomsky 1981, 1986). Syntactic objects that are derived by different syntactic operations were licensed if their final representations in the Logical Form did not differ. In the current framework since Chomsky (2000), however, it is assumed not only that the semantic component is uniform for all languages but also that syntactic operations proceed uniformly for all languages. This assumption is ensured by the cartographic system (Rizzi 1997, Cinque 1999), in which the position where a constituent is located in syntax must correspond to the interpretation that it receives in the semantic component. Specifically, the constituent that moves and is located, e.g. in [Spec,FocP], in the syntactic component must be

cross-linguistically interpreted as focus in the semantic component. Conversely, the constituent that receives the interpretation as focus in the semantic component must be cross-linguistically located in [Spec,FocP] in the syntactic component. In this system, a category is interpreted in the moved position. In the remnant movement system, a category that is moved as part of a projection can reach the syntactic position that does not correspond to the interpretation it should receive in the semantic component. For instance, the subject *jag* in (44-45) firstly moves to [Spec,TopP] (44-45c). It is further raised as part of TopP and the final location is [Spec,AdvP] (44d, 45f). The finite Aux *har* firstly moves to the Fin head (45c). It is further raised as part of TopP and its final location is [Spec,AdvP], which is not a head position (45f). It is unclear what kind of interpretation the subject and the Aux are assigned in [Spec,AdvP].

Fox and Pesetsky (2005) propose a derivational system, *Cyclic Linearization*, in which successive cyclicity of movement is associated with order preservation. In this system, the information on linearization established at a *Spell-Out* S-O point is not deleted in the course of derivation. It is added to the ordering information established at the next S-O. Assume that  $[_D X Y Z]$  is a domain D that is sent to the phonological component at an S-O point. The ordering information at the S-O of D is  $X < Y$  and  $Y < Z$  ('<' means *precedes*). Assume further i) that A merges with D, which results in  $A < [_D \dots]$ , ii) that some category inside D moves higher than A, and iii) that the next domain D' is spelled out. Some derivational cases can be considered:

- (46) a.  $[_D' \dots X A [_D \cancel{X} Y Z]]$  ( $X < A$ ,  $A < [_D \dots]$ ; thus,  $X < Y$ )  
 b.  $*[_D' \dots Y A [_D X \cancel{Y} Z]]$  ( $Y < A$ ,  $A < [_D \dots]$ ; thus,  $Y < X$ )  
 c.  $[_D' \dots X Y A [_D \cancel{X} \cancel{Y} Z]]$  ( $X < Y$ ,  $Y < A$ ,  $A < [_D \dots]$ )  
 d.  $[_D' \dots Y A [_D \cancel{X} \cancel{Y} Z]]$  ( $Y < A$ ,  $A < [_D \dots]$ )

First, X moves higher than A, which results in  $X < A$  (46a). The ordering information  $A < [_D \dots]$  indicates  $A < Y$ . The informations  $X < A$  and  $A < Y$  indicate that X precedes Y at the S-O of D'. Since this ordering information does not contradict the one at the S-O of D, i.e.  $X < Y$ , the derivation is licit. Secondly, Y moves higher than A, which results in  $Y < A$  (46b). The ordering information  $A < [_D \dots]$  implies  $A < X$ . The informations  $Y < A$  and  $A < X$  indicate  $Y < X$ . This ordering information contradicts the one at the S-O of D, i.e.  $X < Y$ . Thus, this is an illicit derivation. Thirdly, both X and Y move, which results in  $X < Y$  and  $Y < A$  (46c). The original ordering information  $X < Y$  is still maintained after both X and Y move from inside D, which makes the derivation licit. Finally, after Y moves higher than A, which results in  $Y < A$ ,  $[_D \dots]$  is subject to ellipsis (46d). Fox and Pesetsky claim that the illicit movement of Y, which



would yield the contradictory ordering information  $Y < X$ , is remedied under the ellipsis of the previous S-O domain.

Specifically, this system applies to OS in the following way. Assuming that CP and VP are S-O domains and that the subject is not involved in linearization, the ordering information at the S-O of VP is  $V < O$ . In simple tense forms, e.g. (Swe.) *jag såg den inte* (I saw it not ‘I didn’t see it’) (47a), after the sentential adverb *inte* merges with VP, both the main verb *såg* and the object pronoun *den* move. When CP is spelled out, the verb still precedes the pronoun, i.e.  $V < O$ . Since the ordering information at the S-O of CP does not contradict the one at the S-O of VP, the derivation is licit. In the ungrammatical derivation of complex tense forms, e.g. (Swe.) *\*jag har den inte sett* (I have it not seen) (47b) (cf. *jag har inte sett den* (I have not seen it ‘I haven’t seen it’), the object pronoun *den* moves, but the past participle main verb *sett* does not move. The ordering information at the S-O of VP is  $V < O$ . After movement of the object pronoun, however, it precedes the main verb at the S-O of CP, i.e.  $O < V$ . Since the ordering information at the S-O of VP contradicts the one at the S-O of CP, this derivation is illicit.<sup>29</sup>

- (47) a. [<sub>CP</sub> jag såg [<sub>TP</sub> jag den inte [<sub>VP</sub> såg den]]]  
( $V < O$  at the S-O of VP, and  $V < O$  at the S-O of CP)
- b. *\*[<sub>CP</sub> jag har [<sub>TP</sub> jag den inte har [<sub>VP</sub> sett den]]]*  
( $V < O$  at the S-O of VP, but  $O < V$  at the S-O of CP)

There are some parametric differences among the Scandinavian languages, one of which is verb particle constructions. As we saw in § 2.1, an object pronoun cannot move across a verb particle, e.g. in Swedish (26a), as repeated in (48a), but it moves, e.g. in Danish (26b), as repeated in (48b).

- (48) a. *\*[<sub>CP</sub> jag skrev [<sub>TP</sub> jag det [<sub>VP</sub> skrev upp det]]]*  
(particle  $< O$  at the S-O of VP, but  $O < \text{particle}$  at the S-O of CP)
- b. [<sub>CP</sub> jeg skrev [<sub>TP</sub> jeg det [<sub>VP</sub> skrev op det]]]  
(particle  $< O$  at the S-O of VP, but  $O < \text{particle}$  at the S-O of CP)

<sup>29</sup> See their argument against the analysis of Verb Topicalization by Holmberg (1999). They claim that Verb Topicalization can be derived by remnant movement. They argue that below, after the direct object pronoun *den* moves out from VP, the latter that contains the past participle *gett* and the indirect object pronoun *henne* moves to [Spec,CP]:

(i) ?[<sub>CP</sub> [<sub>VP</sub> Gett henne ~~den~~] har [<sub>TP</sub> jag den inte [<sub>VP</sub> ~~gett henne den~~]]]. [Swe.]  
given her have I it not  
‘Given her, I haven’t, regarding it.’  
(Fox and Pesetsky 2005:25, (30a))

Fox and Pesetsky refer to the Swedish case, and claim that when an object pronoun moves, the ordering information at the S-O of VP, particle<O, contradicts the one at the S-O of CP, O<particle; thus, the derivation is illicit (48a). The same argument does not apply to, e.g. Danish, in which an object pronoun moves across a verb particle (48b). An object pronoun follows a particle at the S-O of VP, i.e. particle<O. The former precedes the latter at the S-O of CP, i.e. O<particle. Though the derivation does not proceed cyclically, the construction is grammatical in this Scandinavian variety. Thus, parametric differences among the Scandinavian languages remain to be accounted for in Fox and Pesetsky's system.<sup>30</sup>

Broekhuis (2008) proposes an account of OS under the framework of Optimality Theory. In this framework, it is assumed that the generator produces a candidate set of syntactic constructions. They are inputs from which the evaluator selects the most optimal output. An evaluation is done by referring to a small amount of constraints which are drawn from a universal set of constraints. Constraints are hierarchically ranked, and ranking of constraints can differ among languages. It is stipulated in each language before an evaluation starts. Constraints are violable, and the violation of a lower-ranked constraint is allowed if a higher-ranked constraint is not violated.

Broekhuis needs to assume at least four constraints to account for the basic facts on OS illustrated in (8-10):<sup>31</sup> i) *\*MOVE* (*t<sub>O</sub> only*), which prohibits the uneconomical movement of an object pronoun; ii) *D-PRONOUN*, which forces a weak/definite pronoun to move out of v\*P; iii) *EPP*, which requires an overt category in the Spec of a head; and iv) *H-COMPL*, which requires that the order of head-complement be preserved.

The facts on simple tense forms are accounted for in terms of the first two constraints. The columns in (49a-c) are a candidate set for simple tense forms. In the Scandinavian varieties that do not have OS (49a), *\*MOVE* (*t<sub>O</sub> only*) outranks *D-PRONOUN*. The evaluator selects the candidate that does not violate the higher-ranked constraint *\*MOVE* (*t<sub>O</sub> only*) aside from the violation of the lower-ranked constraint *D-PRONOUN*, i.e. the candidate in which an object pronoun remains in situ, as the optimal one. In the Scandinavian varieties in which OS is obligatory (49b), *D-PRONOUN* outranks *\*MOVE* (*t<sub>O</sub> only*). The evaluator selects the candidate that does not violate the higher-ranked constraint *D-PRONOUN*, i.e. the candidate in which an object pronoun moves out of v\*P, as the optimal one. In the Scandinavian

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<sup>30</sup> In addition, there are several phenomena that are observed only in Swedish; see § 2.1. The feature that characterizes them is that an object pronoun moves across a subject. Fox and Pesetsky assume that a subject is not involved in linearization. If a subject were assumed to be part of linearization in their system, many cases would arise in which the linearization information at the S-O of VP contradicts the one at the S-O of CP, which is another defect in their system.

<sup>31</sup> I simplify his accounts here for the sake of convenience.

varieties in which OS is optional (49c), it is assumed that the evaluation yields a tie of the constraints which are equally high: D-PRONOUN <> \*MOVE ( $t_O$  only). When the ranking (49b) is used, the candidate in which an object pronoun moves (i.e. the lower column) is selected. When the ranking (49a) is used, the candidate in which an object pronoun remains in situ (i.e. the upper column) is selected.

- (49) a. Ig t<sub>j</sub>yöpt (\*åna) it (<sup>OK</sup>åna). [Övd.]  
 I bought it not it  
 'I didn't buy it.'

No OS	*MOVE ( $t_O$ only)	D-PRONOUN
I+V Adv [ $t_V$ O]] ☞		*
I+V [O Adv [ $t_V$ $t_O$ ]]	*!	*

- b. Peter mødte (<sup>OK</sup>ham) ikke (\*ham). [Dan.]  
 Peter met him not him  
 'Peter didn't see him.'

Obligatory OS	D-PRONOUN	*MOVE ( $t_O$ only)
I+V Adv [ $t_V$ pron]]	*!	
I+V [pron Adv [ $t_V$ $t_O$ ]] ☞		*

- c. Jag såg (<sup>OK</sup>den) inte (<sup>OK</sup>den). [Swe.]  
 I saw it not it  
 'I didn't see it.'

Optional OS	D-PRONOUN	*MOVE ( $t_O$ only)
I+V Adv [ $t_V$ pron]] ☞	*>	
I+V [pron Adv [ $t_V$ $t_O$ ]] ☞		*<

The absence of OS in embedded clauses and complex tense forms is accounted for by adding the other two constraints, *EPP* and *H-COMPL*. Ranking is stipulated, from the top to the bottom, as H-COMPL, EPP, D-PRONOUN and \*MOVE ( $t_O$  only). It is assumed regarding the constraint EPP that both a verbal head and the Aux head require an overt category in their Spec.

(50ai-iii) are a possible candidate set for embedded clauses, and (50b) is their evaluation. A main verb follows a shifted object pronoun in (50aiii). Since the highest-ranked constraint H-COMPL is violated, that candidate is rejected. No overt category is present in [Spec,v\*P] in (50ai), but an object pronoun moves to [Spec,v\*P] in (50aii). The latter candidate does not violate

the next higher-ranked constraint EPP. It is then selected as the optimal candidate for embedded clauses.

- (50) a. i. C [I ... inte v+V ...  $t_V$  pron]  
 ii. C [I ... inte v+V ... pron  $t_V$   $t_O$ ]  
 iii. C [I ... pron inte v+V ...  $t_O$   $t_V$   $t_O$ ]
- b. ... att jag (\*den) inte såg (<sup>OK</sup>den) [Swe.]  
 that I it not saw it  
 ‘... that I didn’t see it’

emb.cl.	H-COMPL	EPP	D-PRONOUN	*MOVE ( $t_O$ only)
(50ai)		*!	*	
(50aii) 			*	*
(50aiii)	*!			**

(51ai-iv) are a possible candidate set for complex tense forms, and (51b) is their evaluation.<sup>32</sup> The head (Asp+)V follows a shifted object pronoun in (51aiii-iv). Since the highest-ranked constraint H-COMPL is violated, those candidates are rejected. An overt category is present neither in the Spec of the Aux nor in [Spec,v\*P] in (51ai): the next higher-ranked constraint EPP is violated twice. Though no overt category is present in the Spec of an Aux, an object pronoun moves to [Spec,v\*P] in (51aii): the constraint EPP is violated only once. The latter candidate incurs fewer violations against the next higher-ranked constraint EPP than the former. Thus, it is selected as the optimal candidate for complex tense forms.

- (51) a. i. I+v+Aux ... Adv  $t_{V+Aux}$  ...  $t_{Aux}$  ... Asp+V ...  $t_V$  pron  
 ii. I+v+Aux ... Adv  $t_{V+Aux}$  ...  $t_{Aux}$  ... Asp+V ... pron  $t_V$   $t_O$   
 iii. I+v+Aux ... Adv  $t_{V+Aux}$  ... pron  $t_{Aux}$  ... Asp+V ...  $t_O$   $t_V$   $t_O$   
 iv. I+v+Aux ... pron Adv  $t_{V+Aux}$  ...  $t_O$   $t_{Aux}$  ... Asp+V ...  $t_O$   $t_V$   $t_O$
- b. Jag har (\*den) inte sett (<sup>OK</sup>den). [Swe.]  
 I have it not seen it  
 ‘I haven’t seen it.’

<sup>32</sup> (51aiii) is the case in which an object pronoun moves across the past participle but does not cross a sentential adverb, which is ungrammatical as well.

(i) \*Jag har inte den sett. [Swe.]  
 I have not it seen

comp.tense.	H-COMPL	EPP	D-PRONOUN	*MOVE ( <i>t</i> <sub>O</sub> only)
(51ai)		**!	*	
(51aii) 		*	*	*
(51aiii)	*!		*	**
(51aiv)	*!			***

In the system above, an optimal candidate for simple tense forms is determined only by the presence or absence of the movement of a weak pronominal object. Since the ranking system does not refer to main verb movement, the correlation between the presence of OS and that of verb movement, i.e. Holmberg's Generalization, is not provided an account in this system. All the candidates for embedded clauses and complex tense forms in which an object pronoun precedes the past participle main verb are eliminated by the highest-ranked constraint H-COMPL, which states that a head must precede its complement. The addition of this constraint to ranking is simply a stipulation to account for the ungrammatical cases in which an object pronoun moves across the past participle (and an adverb).


All in all, the syntactic accounts introduced above will provide some devices to derive the constructions relevant to OS. As pointed out for Fox and Pesetsky's account, however, the syntactic approach is not sufficient to provide a coherent account for parametric differences among the Scandinavian languages. To provide a unified account, it would be necessary to assume extra syntactic derivations (for the remnant movement system) or extra constraints (for the Optimality-Theoretic account). In addition, in the same way as in the semantico-syntactic accounts, it is not clear how the fact that OS is neither A-movement nor A'-movement can be accounted for in the syntactic approach. If OS were syntactic movement, it should be either A-movement or A'-movement, contrary to fact.<sup>33</sup>

#### 2.4. Purely phonological accounts of Scandinavian Object Shift

Most of the phonological accounts of OS are based on prosodic structure theory (Nespor and Vogel 1986, Selkirk 1996). Under the tradition of

<sup>33</sup> See Vikner (2001) for another account of OS under the framework of Optimality Theory. See Sells (2001) for an account of OS under the framework of Lexical Functional Grammar. Bobaljik (1995, 2002) proposes a morphosyntactic account of OS in terms of *morphological merger*. According to Bobaljik, movement of an object pronoun is prohibited, e.g. in embedded clauses, since a shifted object pronoun would prevent a main verb from merging with T and obtaining inflection:

(i) \*[<sub>CP</sub> att [<sub>TP</sub> jag T den [<sub>VP</sub> såg ~~den~~]]]



Bobaljik's proposal is argued against by Holmberg (1999) with convincing counterarguments. I do not review Bobaljik's proposal here.



e.g. a main verb. Specifically, the main verb *så* receives a stress (53a). (53bi) is the output of a syntactic operation. Prosodic incorporation applies to the object pronoun *ham* and its phonological host *så* (53bii). Verb movement takes place and the object pronoun moves along with the main verb (53biii). Topicalization applies to the subject *jeg* and it moves to sentence-initial position (53biv). It is argued that OS in fact does not exist, since movement of a weak pronominal object depends on that of its phonological host, i.e. a main verb, onto which it is incorporated.

- (53) a. Jeg SÅ ham ikke [VP SÅ ham]. [Dan.]  
 I saw him not  
 ‘I didn’t see him.’
- b. i. ikke jeg så ham  
 ii. ikke jeg så+ham  
 iii. så+ham ikke jeg  
 iv. jeg<sub>Top</sub> så+ham ikke

This system arbitrarily allows any category to act as a phonological host, e.g. an indirect object, as illustrated in (54).

- (54) a. Sara gav Peter den. [Dan.]  
 Sara gave Peter it  
 ‘Sara gave it to Peter.’
- b. Sara gav Peter+d’n  
 (Erteschik-Shir 2005a:66,(39))

Regarding parametric differences among the Scandinavian languages, it is argued that in the Scandinavian varieties in which OS is optional, a phonological reanalysis of a main verb and the following sentential adverb like the negation occurs and the reanalyzed form can be the phonological host of a weak pronominal object. It is not clear whether and how such a reanalyzing process can be justified only for a subvariety of the Scandinavian languages. The problem that an arbitrary prosodic incorporation/phonological reanalysis is allowed is one facet of the more general problem that no phonological rules or principles that characterize the prosodic properties of (each of) the Scandinavian languages are referred to in the system. Due to this problem, a principled account of OS cannot be presented.<sup>37</sup>

Richards (2006) makes an attempt at associating a phonological phrase  $\emptyset$  with a syntactic domain, a phase (Chomsky 2000). At the Spell-Out of

<sup>37</sup> The same problem occurs in the account of OS by Josefsson (2010). See Vogel (2004) for another prosodic account of OS based on Selkirk (1996).

a phase, only the complement of a phasal head, not the entire phase, is sent to the phonological component. Thus, it is argued that the size of a phonological phrase  $\phi$  must be smaller than that of a phase. It is proposed that at the S-O of a phase, a phonological boundary is inserted between a phasal head and its complement. The insertion of a phonological boundary indicates that the phonological phrase  $\phi$  which a complement belongs to is separated from the one which a phasal head belongs to. Since a weak pronominal object is defective, it cannot compose a phonological phrase  $\phi$  by itself. To be spelled out, it needs a phonological host. For both a weak pronominal object and its host to be contained in the same phonological phrase  $\phi$ , the former must move into the same domain that the latter belongs to. Specifically, see below:

- (55) a. Jan kysste henne inte. [Swe.]  
 Jan kissed her not  
 'Jan didn't kiss her.'
- b. [CP Jan kysste [TP ... [v\*P henne [v\*P inte [v\*P ... ~~kysste~~ [VP ~~kysste~~ henne]]]]]]  
 ( ) ( ) $\phi$
- (56) a. Jan kysste inte henne. [Swe.]
- b. [CP Jan kysste [TP ... [v\*P inte [v\*P ... ~~kysste~~ [VP ~~kysste~~ henne]]]]  
 ( ) ( ) $\phi$

The weak pronominal object *henne* moves into the domain that contains its phonological host *kysste* (55). Contained in the same phonological phrase  $\phi$  that the phonological host belongs to, the object pronoun can be spelled out in the shifted position. The object pronoun *henne* remains inside VP and is in the phonological phrase  $\phi$  that does not contain its phonological host *kysst* (56). Since it is separated from the phonological host when VP is sent to the phonological component, it cannot be spelled out in situ. It is argued that movement of a weak pronominal object occurs in syntax, and cliticization onto its host takes place in the phonological component: an object pronoun is a *phasal affix*, in Richards' terms.

As pointed out for Erteschik-Shir's system, parametric differences among the Scandinavian languages, especially the optional aspect of OS, remain to be explained in Richards' account too: (56) could not be a possible prosodic pattern in any of the Scandinavian varieties, contrary to fact. An account for the fact that OS is prevented in some copular sentences (17b), as repeated below, cannot be provided either. The prosodic representation illustrated in (57b) must not be allowed, contrary to his expectation.





*forms*, introduced in 1 in § 2.1, ii) *Parametric differences among the Scandinavian languages*, introduced in 2 in § 2.1, and iii) *Particular syntactic properties of OS*, introduced in 3 in § 2.1. The columns of *Approaches* are, from the top to the bottom, i) the semantico-syntactic approach introduced in § 2.2, ii) the purely syntactic approach introduced in § 2.3, and iii) the purely phonological approach introduced in § 2.4. A column is marked either with ‘√’ if each of the representative works introduced can account for all the relevant issues in each item, or with ‘×’ if even one of the representatives fails in accounting for even one of the issues in each of the items.

(58) Accounts of the Semantico-Syntactic, Syntactic and Phonological Approaches:

Approaches \ Items	Move. of various pro. forms	Parametric differences	Particular Syn. Prop. of OS
Sem.-Syn.	×	√	×
Syn.	√	×	×
Phon.	×	×	√

The semantico-syntactic approach will account for parametric differences among the Scandinavian languages including the optionality of OS in some of the Scandinavian varieties and the absence of OS in Övdalian. However, it has difficulty in accounting for the fact that OS does not appear to be a syntactic movement. Furthermore, the theories based on the Mapping Hypothesis (Diesing 1992) make wrong predictions regarding the application of OS: the semantic effects imposed on an object pronoun are not decisive for the application of its movement. Crucially, the defocused status of shifted object pronouns itself does not account for Holmberg’s Generalization. Taking the semantic(o-syntactic) approach, Mikkelsen (2011) leaves aside syntactic properties of OS such as Holmberg’s Generalization, saying that they are derived from external factors. However, the primary concern should be to provide an account for the particular syntactic property of Scandinavian OS that the presence of pronominal movement is dependent on that of verb movement, as Holmberg (1986) originally points out.

The syntactic approach will provide some devices to derive the constructions relevant to OS. But it will be insufficient to provide a coherent account for parametric differences among the Scandinavian languages, since it requires either extra syntactic derivations or extra constraints. And it is not clear how the fact that OS does not appear to be a syntactic movement can be accounted for.

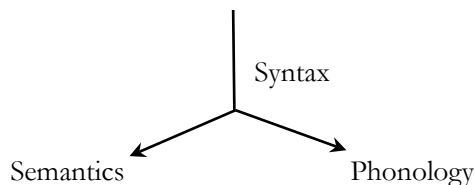
The phonological approach to OS can account for the fact that OS does not appear to be a syntactic movement, which neither the

semantico-syntactic nor syntactic approaches can capture. But in one system that has been proposed, namely Erteschik-Shir's, allows arbitrary phonological operations. This problem occurs since it does not refer to any phonological rules or principles that characterize (each of) the Scandinavian languages. In addition, parametric differences among the Scandinavian languages remain to be explained in any of the proposed systems.

Thus, it has turned out that none of the semantico-syntactic, syntactic and phonological approaches succeeds in providing a principled account for all aspects of OS.

The semantico-syntactic, syntactic and phonological approaches introduced in this section are all based on the traditional 'interpretive' model in generative grammar:

(59) Traditional 'Interpretive' Model in Generative Grammar:



This model illustrates the idea that syntax 'mediates' semantics and phonology. That is, a syntactic structure is firstly constructed in the syntactic component. That syntactic structure is sent to the semantic component and assigned an interpretation, on one hand. It is also sent to the phonological component and assigned some sound properties, on the other.<sup>39</sup> On this theoretical assumption, actual semantic and phonological properties cannot be involved in the syntactic derivation, since the semantic and phonological components simply 'receive' a structure sent from the syntactic component and assign it some interpretation/phonological properties. Conversely, the syntactic component 'cannot see' any actual semantic and phonological properties in the course of derivation: it simply produces a structure to be sent to the semantic and phonological components.

Much of the literature in experimental phonetics has showed that the Scandinavian languages are characterized by specific intonational properties to a significant extent (e.g. Bruce 1977, 1999, 2005, 2007, Bruce and Gårding 1978, Gårding 1998 for Swedish; Kristoffersen 2000, 2007 for Norwegian; Grønnum 1998, Basbøll 2005 for Danish; Árnason 1999, 2011, Gussmann 2002, Dehé 2010 for Icelandic; Árnason 1999, 2011 for Faroese; Kristoffersen 2008 for Övdalian). Swedish and Norwegian have a distinction in word accent: accent 1

<sup>39</sup> As we saw in § 2.2, the current phase framework since Chomsky (2000) assumes that the syntactic structure is sent to the phonological component at the Spell-Out of each phase in the course of derivation.

and accent 2. The former associates an accent with a low tone, and the latter with a high tone. The focus of a sentence is realized by a high tone that occurs on or after the accented syllable of a focused word, i.e. by a focal high contour. The low-high tone plays a crucial role in sentence production and perception in these Scandinavian varieties. A possibility is that the low-high intonation pattern may be the key to shed light on the pending issues on OS.

Danish, instead of word accent, has a peculiar feature associated with an accent, i.e. *stød*, a creaky voice. The dialects in Mainland Scandinavian are classified according to whether word accent/*stød* is present or not; see (60). Some varieties of South Danish have a tonal distinction instead of *stød*. South Danish allows an optional application of OS, though OS is obligatory in East Danish (Erteschik-Shir 2005a,b). Together with obligatory/optional OS in Swedish and Norwegian dialects, a possibility is that OS is more or less obligatory in the dialects that have word accent/*stød*, whereas OS can be optional in those which do not have word accent/*stød*.

(60)	<i>Word Accent/Stød Present:</i>	<i>Word Accent/Stød Not Present:</i>
	East Swedish (e.g. Stockholm)	Finland and Far North Swedish (e.g. Tornedalen)
	East Norwegian (e.g. Oslo)	North and West Norwegian (e.g. Finnmark, Bergen)
	East Danish (e.g. Copenhagen)	South Danish (e.g. Lolland-Falster)
	(Bruce 1999:607, (2))	

Icelandic and Faroese do not have word accent. Word stress is located on the first syllable in the unmarked case. The pitch accent system of Icelandic is similar to that of, e.g. English. Icelandic has several particular phonological properties. The sound system of Faroese is quite similar to that of Icelandic. In addition, Övdalian, which has been argued to be the only Scandinavian variety that lacks OS, retains many particular intonational properties. It is possible that particular phonological and intonational properties of these varieties are closely related to the presence and absence of OS in them.

Therefore, it is highly plausible that a thorough discussion of OS from the intonational perspective will shed new light on this controversial phenomenon. Specifically, the intonational properties that the syntactic component cannot see in the course of derivation on the assumption of the ‘interpretive’ model may play a crucial role in accounting for the nature of OS as a whole. In the next chapter, I introduce an experiment to observe the intonational properties of the constructions relevant to OS and present experimental data. It will turn out that the intonational properties of the Scandinavian languages are crucial to the obligatoriness, optionality and absence of OS.