# Mappping Discourse Functions onto Syntactic Domains II: The Interpretation of Object Shift, Optimality Theory, and Minimalism

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Diesing (1996, 1997) observes that the interpretations of object-shifted objects and non-object-shifted objects in Icelandic object shift constructions differ along very similar lines to the interpretation differences between scrambled and non-scrambled objects in e.g. German. Although the differences between moved objects and non-moved ones are less straightforward than might be expected, Diesing's generalisations are assumed to be valid at least for indefinite objects.

The present paper argues that Optimality Theory has certain advantages over e.g. Minimalism in accounting for such data. This is because the interpretational differences only hold of object shift constructions: In a construction where object shift is possible, a non-object-shifted object only has one interpretation (parallel to a German non-scrambled object), but in a construction where object shift is **not** possible, a non-object-shifted object is ambiguous (interpretable **either** like a German scrambled object **or** like a German non-scrambled object). In other words, what matters is not just whether the object has moved, but also whether it "could have moved" (i.e. it depends on how well those competing candidates are doing which contain object-shifted objects).

It is also shown both that the difference between Icelandic and German can be accounted for by constraint reranking, and that the constraints also apply to pronouns. The appendix contains some further comments on Diesing's analyses and on the A-/A-bar-status of object shift.

This talk is based on Vikner (1997, 2001).

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#### 1. Introduction

Object shift is a process found in the Scandinavian languages (Holmberg 1986, 1991, 1999, Vikner 1989, 1994, 2005, Josefsson 1992, 1993, Holmberg & Platzack 1995, and references in all of these), which moves the object out of its base position inside the VP to a position to the left of an element (e.g. negation or adverbial) which is not part of the VP:

```
(1) Da. a. *Hvorfor læste<sub>v</sub> Peter aldrig [<sub>VP</sub> t<sub>v</sub> <u>den</u>] ?
b. Hvorfor læste<sub>v</sub> Peter <u>den</u><sub>i</sub> aldrig [<sub>VP</sub> t<sub>v</sub> <u>t</u><sub>i</sub>] ?
Why read Peter (it) never (it) ?

(2) Ic. a. *Af hverju las<sub>v</sub> Pétur aldrei [<sub>VP</sub> t<sub>v</sub> <u>hana</u>] ?
b. Af hverju las<sub>v</sub> Pétur <u>hana</u><sub>i</sub> aldrei [<sub>VP</sub> t<sub>v</sub> <u>t</u><sub>i</sub>] ?
Why read Pétur (it) never (it) ?
```

In all the Scandinavian languages, pronouns undergo object shift (obligatorily), whereas in Icelandic, all DPs do (optionally):

```
(3) Da. a. Hvorfor læste<sub>v</sub> Peter aldrig [<sub>VP</sub> t<sub>v</sub> den her bog ] ?
b. *Hvorfor læste<sub>v</sub> Peter den her bog aldrig [<sub>VP</sub> t<sub>v</sub> ti ] ?

Why read Peter (this book) never (this book) ?

(4) Ic. a. Af hverju las<sub>v</sub> Pétur aldrei [<sub>VP</sub> t<sub>v</sub> bessa bók ] ?

b. Af hverju las<sub>v</sub> Pétur bessa bók aldrei [<sub>VP</sub> t<sub>v</sub> ti ] ?

Why read Pétur (this book) never (this book) ?
```

Object shift is only possible if the verb leaves VP, which a finite main verb does in main clauses (which are V2, see (1)-(4)), but which a non-finite main verb does not:

```
(5) Da. a. Hvorfor har Peter aldrig [_{\mathrm{VP}} læst \underline{\mathrm{den}}]? b. *Hvorfor har Peter \underline{\mathrm{den}}_{i} aldrig [_{\mathrm{VP}} læst \underline{\mathrm{t}}_{i}]? \underline{\mathrm{Why}} has Peter (it) never read (it)? 

(6) Ic. a. Af hverju hefur Pétur \underline{\mathrm{bessa\ bók}}_{i} aldrei [_{\mathrm{VP}} lesið \underline{\mathrm{tesid}}_{i}]? \underline{\mathrm{Why}} has Pétur (this book) never read (this book)?
```

Scrambling, which is an object movement very similar to object shift, found in the continental West Germanic languages (cf. the papers in Grewendorf & Sternefeld 1990, Webelhuth 1992, Haider 1993, Rosengren 1993, Corver & van Riemsdijk 1994, Müller 1995, 1999 and references in all of these), is not dependent on the position of the verb in this way:

```
(7)
     Ge. a. ... ob Peter
                                              <u>dieses Buch</u> liest?
                                        nie
             ... ob Peter <u>dieses Buch</u> nie
              ... if Peter (this book) never (this book) reads?
     Ge. a. Warum liest Peter
(8)
                                             nie <u>dieses Buch</u> ?
             Warum liest Peter <u>dieses Buch</u> nie <u>t</u>
             Why reads Peter (this book) never (this book)?
     Ge. a. Warum hat Peter
(9)
                                          nie <u>dieses Buch</u> gelesen?
             Warum hat Peter <u>dieses Buch</u> nie <u>t</u>
              Why has Peter (this book) never (this book) read ?
```

(Scrambling, too, becomes obligatory rather than optional when pronouns are considered.)

# 2. The interpretation of object shift (and scrambling)

Are (Ic.) object shift and (Ge.) scrambling completely optional (at least for non-pronouns)? **NO**, they are **NOT**. Diesing & Jelinek (1995:150) (D&J) and Diesing (1996:79, 1997:418): The interpretation of object-shifted objects in Icelandic differs from that of non-object-shifted objects, and this difference is parallel to the difference in interpretation between scrambled and non-scrambled objects in e.g. German and Yiddish (Diesing 1992:129).

#### 2.1 Definite objects containing a superlative

D&J/Diesing: (10a) means that whichever group of books he is put in front of, he rarely reads the one which is the longest in that particular group. (10b) means that there is a book which is longer than all others, and that book, he rarely reads. Thus the relative scope of *seldom* and *the longest book* correspond to their surface order, the one furthest left has wider scope.

(11a) means that whichever group of cats I meet, I rarely pet the one which is the smallest in that particular group. (11b) means that there is a cat which is smaller than all others, and that cat I rarely pet.

However, this is too simple. Consider the following examples parallel to Diesing's:

```
    (12) Ic. a. Í öllum fyrirlestrunum gagnrýndi Pétur aldrei besta stúdentinn In all lectures criticised Pétur never best student-the
    b. Í öllum fyrirlestrunum gagnrýndi Pétur besta stúdentinn aldrei In all lectures criticised Pétur best student-the never
```

We might expect the following: In (12a), it never happens that Peter criticises the best of the students present in the class Peter is teaching at that point. In (12b), there is one student who is better than all other students, and this student Peter never criticises.

If the conditions for object shift in Icelandic are not fulfilled, there is only one possibility, which then has both interpretations described:

```
(13) Ic. a. Í öllum fyrirlestrunum hefur Pétur aldrei gagnrýnt besta stúdentinn In all lectures has Pétur never criticised best student-the
b. *Í öllum fyrirlestrunum hefur Pétur aldrei besta stúdentinn gagnrýnt In all lectures has Pétur never best student-the criticised
c. *Í öllum fyrirlestrunum hefur Pétur besta stúdentinn aldrei gagnrýnt In all lectures has Pétur best student-the never criticised
```

However, it is not only (13a) which is ambiguous, e.g. (12a) are also ambiguous: The order of (12a) is possible even in (14)/(15), where a possible reading is that the world's best book is never mentioned in Peter's talks:

```
    (14) Ge. Bei unseren Tagungen hat Peter nie das beste Buch erwähnt At our conferences has Peter never the best book mentioned
    (15) Ic. Á ráðstefnunum okkar nefnir At conferences our mentions Pétur never best book-the
```

We thus have to consider a different set of examples to find support for Diesing's analysis.

#### 2.2 Indefinite objects

- (16) Ge. a. Übrigens zeigen sie  $\underline{\text{immer}}$  Clinton-Interviews in den Auslandsnachrichten Besides show they always Clinton-interviews in the Abroad-News
  - b. Übrigens zeigen sie <u>Clinton-Interviews immer</u> in den Auslandsnachrichten Besides show they Clinton-interviews always in the Abroad-News
- (17) Ge. a. Übrigens haben sie  $\underline{immer}$  Clinton-Interviews in den Auslandsnachrichten gezeigt Besides have they always Clinton-interviews in the Abroad-News shown
  - b. Übrigens haben sie <u>Clinton-Interviews immer</u>
    in den Auslandsnachrichten gezeigt
    Besides have they Clinton-interviews always
    in the Abroad-News shown

(16a)/(17a) mean that every foreign news programme contains an interview with Clinton ("existential" reading, *always* has scope over the object).

(16b)/(17b) on the other hand mean that all interviews with Clinton are shown in a foreign news programme ("generic" reading, the object has scope over *always*).

- (18) Ic. a. Auk þess sýna þau <u>alltaf</u> <u>viðtöl</u> <u>við Clinton</u> í erlendu fréttunum Besides show they always interviews with Clinton in foreign news-the
  - b. Auk pess sýna þau  $\underline{\text{viðt\"ol}}$   $\underline{\text{við}}$   $\underline{\text{Clinton}}$   $\underline{\text{alltaf}}$  í  $\underline{\text{erlendu}}$  fréttunum Besides show they interviews with Clinton always in foreign news-the

As in German, the preferred reading of (18a) is that every foreign news programme contains an interview with Clinton ("existential" reading).

Also as in German, (18b) means that all interviews with Clinton are shown in a foreign news programme ("generic" reading).

The question now is what happens in those Icelandic cases where object shift is excluded. Here only one word order is possible, (19a), and this order is ambiguous between the two interpretations:

- (19) Ic. a. Auk þess hafa þau <u>alltaf</u> sýnt <u>viðtöl við Clinton</u>
  í erlendu fréttunum
  Besides have they always shown interviews with Clinton
  in foreign news-the
  - b. \*Auk þess hafa þau <u>alltaf viðtöl við Clinton</u> sýnt í erlendu fréttunum Besides have they always interviews with Clinton shown in foreign news-the
  - c. \*Auk þess hafa þau <u>viðtöl við Clinton</u> <u>alltaf</u> sýnt í erlendu fréttunum Besides have they interviews with Clinton always shown in foreign news-the

# 3. Optimality Theory and the interpretation of object shift (and scrambling)

# 3.1 Optimality Theory

OT (cf. e.g. Prince & Smolensky 1993, Grimshaw 1993, 1997, Burzio 1995, Müller 1997, & Archangeli & Langendoen 1997) takes constraints to be relative/"soft", not absolute/"hard":

- (20) 1. **ABSOLUTE**: "If a sentence violates constraint C, it is ungrammatical"
  - 2. **RELATIVE**: "That a sentence violates constraint C may be bad, but not as bad as if it had violated constraint B, which again is less bad than if it would violate constraint A"

These four ideas are central to optimality theory (Grimshaw 1997:373):

- (21) 1. Constraints may be violated
  - 2. Constraints are ordered in a hierarchy (a grammar is a particular ordering of constraints)
  - 3. **Constraints are universal**, i.e. in all languages, the same constraints apply, except that they are ordered differently from language to language (language variation is variation in the constraint hierarchy)
  - 4. Only the optimal version of a sentence is grammatical, all non-optimal versions are ungrammatical (the optimal version/candidate of two is the one with the smallest violation of the highest constraint on which the two versions/candidates differ)

The data discussed in sections 1 and 2 data showed that the interpretation of an object in Icelandic depends on whether or not it has undergone object shift in a completely parallel way to how the interpretation of an object in German depends on whether or not it has undergone scrambling. It is crucial, however, that whereas scrambling is never impossible in German, there are many sentences or constructions in Icelandic which do not allow object shift. In those Icelandic sentences where object shift is excluded, the non-object-shifted object has **TWO** interpretations: It may be interpreted **EITHER** as if it preceded the adverbial **OR** as if it followed it, and **NOT** just the latter.

This ambiguity is the reason why an Optimality Theory analysis is suitable here:

- On one hand, the generalisation seems to hold of most of the data that the scope of objects and adverbials is read off their surface position (Diesing's "Scoping Condition", 1996:70, 1997:375-76, D&J:127), hence the differences between the non-object-shifted object in (18a), "all foreign news programmes contain Clinton-interviews", and the object-shifted object in (18b), "all Clinton-interviews are shown in foreign news programmes".
- On the other hand, this generalisation does not hold in constructions which disallow object shift, like (19). The Scoping Condition would predict that also in (19), a non-object-shifted object would only have one interpretation, i.e. that (19a) could only be interpreted like (18a) and not like (18b) (and also that the interpretation of (18b) would only be available in sentences where object shift was possible). This is not correct, (19a) is ambiguous between the two interpretations.

This can be accounted for in OT terms by saying that the constraint(s) responsible for the syntactic licensing of the object is(/are) ranked higher than the Scoping constraint. The idea is that the object in an object shift construction is licensed both in its base position and in the object-shifted position, whereas in a non-object-shift construction, the object is only licensed in its base position. For now it will suffice to assume that object licensing presupposes c-command by the verb (i.e. it requires V°-to-I° movement). This could ultimately be derived from constraints on movement (e.g. Equidistance) or on case assignment:

Diesing (1997:414) suggests that object licensing could be constrained by the Shortest Move constraint and the Equidistance mechanism of Chomsky (1993:17-19 = 1995:184-186)(see also Jonas & Bobaljik 1993 and Collins & Thráinsson 1996).

Object licensing could however also be a question of case assignment along the lines of Holmberg (1986:177) and Vikner (1994:493) (though see Holmberg 1999:24), i.e. case may be assigned either by a verb or a verb trace either in V° or in I°, where V° is relevant for object inside VP and I° for objects that have undergone object shift (constructions which disallow object shift would do so because I° does not contain any verb or verb trace):

(22) Ic. a. Auk pess sýna
$$_{\rm v}$$
 pau t $_{\rm v}$  alltaf t $_{\rm v}$  viðtöl b. Auk pess sýna $_{\rm v}$  pau t $_{\rm v}$  viðtöl alltaf t $_{\rm v}$  t $_{\rm i}$  Besides show they (interviews) always (interviews)

We will need three constraints, ranked in the order given:

(23) **LICENSING** An object must be licensed by being c-commanded by its selecting verb (this subsumes Shortest Move/Equidistance/Case assignment, cf. the discussion above).

**SCOPING** An element has the position in the clause that corresponds to its relative scope (cf. the discussion above)

STAY Movement should be avoided (this corresponds to Procrastinate/ Economy of Derivation).

#### 3.2 (Icelandic) Objects with narrow scope

Input: object has narrow scope relative to the adverbial (i.e. every foreign news programme contains an interview with Clinton). Object shift is possible in (24), but not in (25):

(24)	<pre>Input: narrow</pre>	scope object	Licensing	Scoping	Stay	
	a. ► sýna	þau alltaf <u>viðtöl við C</u>				= (18a)
	b. * sýna	þau <u>viðtöl við C</u> alltaf		*!	*	= (18b)

(25)	Inp	put: n	arrow	scop	e obje	ct			Licensing	Scoping	Stay	
	a.	٠	hafa	þau	alltaf	sýnt <u>v</u>	<u>iðtöl</u>	• • •				= (19a)
	b.	*	hafa	þau	alltaf	<u>viðtöl</u>	sýnt		*!		*	= (19b)
	C.	*	hafa	þau	<u>viðtöl</u>	alltaf	sýnt		*!	*	*	= (19c)

(24a)/(25a) are the optimal candidates = the grammatical sentences. However, this could be achieved in any framework, including ones with non-violable constraints: There is no conflict between the constraints, the winning candidates violate no constraints.

# 3.3 (Icelandic) Objects with wide scope

Input: The object has wide scope relative to the adverbial (i.e. every interview with Clinton appears in the foreign news programme). Object shift is possible in (24), but not in (25):

(26)	Inp	out: w	ide scope	object			Licensing	Scoping	Stay	
	a.	*	sýna þau	alltaf	viðtöl v	við C		*!		= (18a)
	b.	٠	sýna þau	<u>viðtöl</u>	<u>við C</u> al	lltaf	 		*	= (18b)

Given that the optimal/grammatical (26b) violates a constraint, namely Stay (= Procrastinate), Stay must not only be a violable constraint (as it is also in Minimalism, cf. section 3.5 below) but also have lower priority than Scoping, as can be seen when the choice is between having to violate either Scoping or Stay.

(27)	Inj	out: w	ide so	cope	object			Licensing	Scoping	Stay	
	a.	٠	hafa	þau	alltaf	sýnt <u>v</u>	iðtöl		*		= (19a)
	b.	*	hafa	þau	alltaf	<u>viðtöl</u>	sýnt	 *!	*	*	= (19b)
	c.	*	hafa	þau	<u>viðtöl</u>	alltaf	sýnt	 *!		*	= (19c)

Given that the optimal (27a) violates a constraint, namely Scoping, Scoping must not only be a violable constraint (which is NOT the case in Diesing's minimalist analysis, cf. section 3.5 below) but also have lower priority than Licensing, as can be seen when the choice is between having to violate either Licensing or Scoping.

#### 3.4 German Objects

I will take the difference between Icelandic and German, i.e. the difference between object shift and scrambling, to be that where Icelandic has Licensing > > Scoping, German has Scoping > > Licensing. This could reflect that object licensing is less necessary in German than in Icelandic, or that c-command is not a necessary condition on object licensing in German.

Consider first the narrow scope cases where the object has narrow scope relative to the adverbial (i.e. every foreign news programme contains an interview with Clinton):

(28)	Input: narrow scope object	Scoping	Licensing	Stay	
	a. ► zeigen sie immer <u>C-Interviews</u>				= (16a)
	b. * zeigen sie <u>C-Interviews</u> immer	*!		*	= (16b)
(29)	Input: narrow scope object	Scoping	Licensing	Stay	
	a. ► immer [ <u>C-Interviews</u> gezeigt				= (17a)
	b. * <u>C-Interviews</u> immer [gezeigt	*!	*!	*	= (17b)

This is the unproblematic case, also in German the winning candidates violate no constraints.

Consider now the wide scope cases where the object has wide scope relative to the adverbial (i.e. every interview with Clinton appears in the foreign news programme):

(30)	Input: wide scope object	Scoping	Licensing	Stay	
	a. * zeigen sie immer <u>C-Interviews</u>	*!			= (16a)
	b. ► zeigen sie <u>C-Interviews</u> immer			*	= (16b)
(31)	Input: wide scope object	Scoping	Licensing	Stay	
	a. * immer [ <u>C-Interviews</u> gezeigt	*!			= (17a)
	b. ► <u>C-Interviews</u> immer [gezeigt		*!	*	= (17b)

Even though (31b) violates Licensing, because the object is not c-commanded by the main verb, it is still grammatical, because its competitor, (31a), violates Scoping.

The result of the reranking is thus that in German, Scoping determines everything regardless of whether there is licensing via c-command, i.e. that there is a one-to-one correspondence between word order and interpretation in German.

#### 3.5 Object pronouns

Recall that if object shift is possible, a pronominal object must move, but if object shift is excluded, the pronoun may remain inside the VP:

```
    (32) Da. a. *Hvorfor læste Peter aldrig den ?
        b. Hvorfor læste Peter den aldrig ?
        Why read Peter (it) never (it)?
    (33) Da. a. Hvorfor har Peter aldrig læst den ?
        b. *Hvorfor har Peter aldrig den læst ?
        b. *Hvorfor har Peter den aldrig læst ?
        Why has Peter (it) never (it) read (it)?
```

Assuming that the licensing of pronominal objects is different in such a way as to allow pronouns to undergo object shift when the verb leaves VP also in the Mainland Scandinavian languages (maybe because the licensing constraint/mechanism involved is incorporation rather than case assignment, cf. Deprez 1989:241, 1994:122, Holmberg 1991:167, Josefsson 1992, Jonas & Bobaljik 1993:69, Diesing 1997:415, ..., contra Vikner 1994:501, Roberts 1995:276, Holmberg & Platzack 1995:153, ...), and assuming further that definite pronouns inherently have wide scope (D&J:131, Diesing 1997:380, 416), we arrive at the following:

(34)	Input: definite object pronoun (wide sc)	Licensing	Scoping	Stay	
	a. * læste Peter aldrig <u>den</u>		*!		= (32a)
	b. ► læste Peter <u>den</u> aldrig			*	= (32b)
(35)	Input: definite object pronoun (wide sc)	Licensing	Scoping	Stay	
	a. ► har Peter aldrig læst <u>den</u>		*		= (33a)
	b. * har Peter aldrig <u>den</u> læst	*!	*	*	= (33b)
	c. * har Peter <u>den</u> aldrig læst	*!		*	= (33c)

One might think that pronouns do not fall under the Scoping constraint, e.g. because of their status as heads, which might require that they undergo object shift to be licensed, see Holmberg (1986:231, 1991:158), Holmberg & Platzack (1995:163), and Vikner (1994:506-9). I.e. these works would imply that (34a) should also have a star under Licensing.

However, as pointed out by Diesing (1996:76, 1997:413, D&J:155), some pronouns do **NOT** undergo object shift: indefinite pronouns. They do not have wide scope, and therefore remain in their base position (in both object shift languages and scrambling languages):

```
(36)
     Ic. a.
              Ég á
                       ekki
                              eldspýtur,
                                              áttu
                                                                ekki
                                                                      nokkrar?
         b. *Ég á
                       ekki
                             eldspýtur,
                                              áttu
                                                       <u>nokkrar</u> ekki
             Jeg har ingen tændstikker,
                                             har du
(37)
     Da. a.
                                                                ikke
         b. *Jeg har ingen tændstikker,
                                             har
                                                  du
                                                                ikke
(38)
             Ich habe keine Streichhölzer, hast Du
                                                               nicht welche ?
          b. *Ich habe keine Streichhölzer, hast Du
                                                       <u>welche</u>
                                                               nicht
                                             have you (any)
                  have no
                              matches,
                                                                not
                                                                      (any)
(39)
     Input: indefinite obj pronoun (narrow sc)
                                                     Licensing Scoping Stay
                                       nicht welche
      a. ► ekki <u>nokkur</u> / ikke <u>nogen</u> /
     b. *nokkur ekki / nogen ikke /
                                       welche nicht
```

(39) is identical to (24). Because (39a) wins over over (39b), but (34b) over (34a), it is impossible to appeal to Stay (predicted best: (34a) and (39a), and also to appeal to Licensing (either no predictions or predicted best: (34b) and (39b, cf. the discussion of (34)). It is therefore preferable to take Scoping to be relevant for pronouns as well as for full DPs.

#### 3.6 Comparison with the minimalist analysis in Diesing (1997)

a.

According to Diesing (1997:422), a minimalist analysis (Chomsky 1993, 1995, Jonas & Bobaljik 1993, Collins & Thráinsson 1996) regulates the availability of object shift by means of **Shortest Move**: object shift is only a possible movement if the verb itself has moved (due to **Equidistance**, see e.g. Chomsky 1993:17-19 = 1995:184-186 and Jonas & Bobaljik 1993).

b.

**Shortest Move** is a "CONDITION ON CONVERGENCE", i.e. if it is violated, the derivation will crash rather than converge. **Procrastinate**, which is a generalisation that says that overt movement (before Spell-Out/in the syntax) is more costly than covert movement (after Spell-Out/at LF), is an "ECONOMY CONSIDERATION", which means that it can only select between different converging derivations, but not cause a derivation to crash.

c.

This difference is important: If **Procrastinate** had been a condition on convergence, "there would never be any cases of overt movement" (Diesing 1997:422). In terms of the present analysis, this would correspond to Stay being inviolable.

d.

Given that object shift does take place, Diesing (1997:422) concludes that it must be the case that "the Scoping Condition is a condition on Convergence, which leads to the overriding of Procrastinate". In terms of the present analysis, this simply corresponds to Scoping being higher ranked than Stay.

e.

The difference between **Minimalism** and **Optimality Theory**: If the Scoping Condition is a condition on convergence, the Scoping Condition itself may **NOT** be violated, as this would make the derivation crash. However, as the discussion of (27) above showed, the Scoping Condition **MUST** be a violable constraint, otherwise wide scope interpretation of the object would only be possible in object shift constructions, which clearly is not the case, cf. the ambiguity of (19a).

f.

This amounts to an insoluble dilemma for Diesing's minimalist analysis: Scoping must override Procrastinate, and this is only possible if Scoping is a condition on convergence. This however means that Scoping is an inviolable constraint, and this cannot be true. The problem is that Minimalism does not allow for a constraint (in this case Scoping) to override another constraint (in this case Procrastinate), cf. (26), and at the same time be overridden itself by yet another constraint (in this case Shortest Move/Licensing), cf. (27). (Admittedly, versions of minimalism exist that allow this, e.g. Bobaljik 1995:351).

g. In a theory of violable constraints, this is not a problem, Icelandic might simply have:

(40) Shortest Move (= Licensing) >> Scoping >> Procrastinate (= Stay)

Conclusion: To account for OS, we need OT.

# Appendix: Subjects, Scoping, and different types of movement

- (41) Da. a. Desuden bliver der <u>altid</u> vist <u>Clinton-interviews</u> i udlandsnyhederne Besides are there always shown Clinton-interviews in abroad-news-the
  - b. Desuden bliver <u>Clinton-interviews</u> <u>altid</u> vist i udlandsnyhederne Besides are <u>Clinton-interview</u> always shown in abroad-news-the

As shown throughout Diesing (1992), subjects may show similar effects. The difference in interpretation here is completely parallel to those discussed above: In (41a), all foreign news programmes contains one or more interviews with Clinton (narrow scope, existential). In (41b), all interviews with Clinton are shown in foreign news programmes (wide scope, generic).

In the Icelandic and German versions of (41b), there is no overt expletive, but the interpretations of (42) and (43) are exactly parallel to (41):

- (42) Ic. a. Auk þess eru <u>alltaf</u> sýnd <u>viðtöl</u> <u>við Clinton</u> í erlendu fréttunum Besides are always shown interviews with Clinton in foreign news-the
  - b. Auk þess eru <u>viðtöl</u> <u>við Clinton</u> <u>alltaf</u> sýnd í erlendu fréttunum Besides are interviews with Clinton always shown in foreign news-the
- $(43) \quad \text{Ge. a. } \ddot{\text{U}} \text{brigens werden } \underline{\text{immer}} \quad \underline{\text{Clinton-Interviews}} \\ & \quad \text{in den Auslandsnachrichten gezeigt} \\ \textit{Besides are} \quad \textit{always Clinton-interviews} \\ & \quad \text{in the Abroad-News} \quad \textit{shown} \\ \\$ 
  - b. Übrigens werden <u>Clinton-Interviews immer</u>
    in den Auslandsnachrichten gezeigt
    Besides are <u>Clinton-interviews always</u>
    in the Abroad-News shown

Consider now what happens when the indefinite DP is moved to CP-spec. In Danish, there are still two different possibilities, with and without *der* `there'. In the version with *der* `there', (44a), the interpretation is existential as in (41a) above, i.e. all foreign news programmes contain interviews with Clinton. In the version without *der* `there', (44b), the interpretation is generic as in (41b) above, i.e. all interviews with Clinton are shown in foreign news programmes:

- (44) Da. a. Clinton-interviews bliver der altid vist i udlandsnyhederne Clinton-interviews are there always shown in abroad-news-the
  - b. <u>Clinton-interviews</u> bliver <u>altid</u> vist i udlandsnyhederne Clinton-interviews are always shown in abroad-news-the

Icelandic/German topicalisation of the objects in (42a)/(43a) result in exactly the same surface string(s) as topicalisation of the objects in (42b)/(43b). The results are both ambiguous, i.e. either has both the reading of (42a)/(43a) and the one of (42b)/(43b):

- (45) Ic.  $\underbrace{\text{Viðt\"ol}}_{\text{Interviews}} \underbrace{\text{við Clinton}}_{\text{eru alltaf}} \text{eru alltaf}_{\text{s\'end}} \text{s\'end} \text{\'e} \text{relendu fr\'ettunum}_{\text{Interviews}}$

To account for (45) and (46), I assume that the topic (the indefinite DP) is an operator, and that operators underlie a separate constraint, **Op-Spec** (Bakovic 1998, Grimshaw 1997:377), which requires them to move to a specifier position (which for various reasons will be CP-spec, see e.g. Grimshaw 1997:377). Op-Spec has to be ranked above Scoping and Stay. Its effect would be parallel to the effect of Licensing in (25) and (27), i.e. regardless of whether the object has wide or narrow scope, Op-Spec will let (phonetically) identical candidates win in the two cases (45)/(46):

(47)	<pre>Input: object = topic, narrow scope</pre>	Licensing	Op-Spec	Scoping	Stay
	a. * eru alltaf sýnd <u>viðtöl</u>		*!		
	b. * eru <u>viðtöl</u> alltaf sýnd		*!	*	*
	c. ► <u>Viðtöl</u> eru alltaf sýnd		-	*	*

(48)	<pre>Input: object = topic, wide scope</pre>	Licensing	Op-Spec	Scoping	Stay
	a. * eru alltaf sýnd <u>viðtöl</u>		*!	*	
	b. * eru <u>viðtöl</u> alltaf sýnd		*!		*
	c. ► <u>Viðtöl</u> eru alltaf sýnd		-		*

Both (47c) and (48c) correspond to (45) in Icelandic and (46) in German. However, this only works if all topicalisation structures are ambiguous (just as when object shift was impossible: the object could have both readings, (25) and (27)). The problem is that this is not the case in Danish, where there are two topicalisation structures, (44a,b), and where (44a) is only existential, and (44b) only generic.

The **ONLY** possibility, given the parallel interpretations of (41a) and (44a) (with *der*), and of (41b) and (44b) (without *der*), would seem to be that Scoping applies to the structure as it looked **BEFORE** topicalisation. The tableaux for (44a) therefore looks like (49) and the one for (44b) like (50) (where the position of the DP before topicalisation is marked by an underlined trace):

(49)	Ing	out: object = topic, narrow scope	Licensing	Op-Spec	Scoping	Stay
	a.	* bliver der altid vist <u>interviews</u>		*!		
	b.	* bliver <u>interviews</u> altid vist t		*!	*	*
	c.	► <u>Interviews</u> bliver der altid vist <u>t</u>				*
	d.	* <u>Interviews</u> bliver <u>t</u> altid vist t		-	*!	**

(50)	Inp	put: object = topic, wide scope	Licensing	Op-Spec	Scoping	Stay
	a.	* bliver der altid vist <u>interviews</u>		*!	*	
	b.	* bliver <u>interviews</u> altid vist t		*!		*
	C.	* <u>Interviews</u> bliver der altid vist <u>t</u>			*!	*
	d.	► <u>Interviews</u> bliver <u>t</u> altid vist t				**

(50d) results in the generic (44b) in Danish, (45) in Icelandic, and (46) in German. (49c) results in the existential (44a) in Danish, (45) in Icelandic, and (46) in German, assuming for Icelandic/German that the expletive (*der* in (49a,c)/(50a,c)) is not pronounced when it occurs lower than CP-spec (cf. Vikner 1995:184-186, 225-227 and references cited there).

If we modify (49)/(50) slightly, they are also the relevant tableaux for (41), (42), and (43), where (51a,b) and (52a,b) are taken not to violate Op-Spec, because the object is not the topic:

(51)	In	out: object = narrow scope, not topic	Licensing	Op-Spec	Scoping	Stay
	a.	► bliver der altid vist <u>interviews</u>				
	b.	* bliver <u>interviews</u> altid vist t			*!	*
	С.	* <u>Interviews</u> bliver der altid vist <u>t</u>				*!
	d.	* <u>Interviews</u> bliver <u>t</u> altid vist t			*!	**

(52)	Input: object = wide scope, not topic	Licensing	Op-Spec	Scoping	Stay
	a. * bliver der altid vist <u>interviews</u>			*!	
	b. ► bliver <u>interviews</u> altid vist t				*
	c. * <u>Interviews</u> bliver der altid vist <u>t</u>			*!	*
	d. * <u>Interviews</u> bliver <u>t</u> altid vist t				**!

Consequently, if the object has narrow scope, (51), the winning candidate is (51a), giving the existential (41a), (42a), and (43a), and if the object has wide scope, (52), the winning candidate is (52b), giving the generic (41b), (42b), and (43b).

The conclusion thus is that scope is **NOT** read off the surface word order, i.e. that *wh*-movement/topicalisation does not count (is transparent) for Scoping, as opposed to both scrambling and object shift which do count for Scoping.

Given that the position into which wh-movement/topicalisation moves is an A-bar-position, it might seem that the positions which count are A-positions, and therefore that both scrambling and object shift are A-movement (following Deprez 1989, Mahajan 1990, ..., contra Müller & Sternefeld 1993, 1994, Vikner 1994, Müller 1995, ...).

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