

Logophoric Anaphora in Icelandic

Eric Reuland

Utrecht Institute of Linguistics OTS, the Netherlands

- 1 Two domains
- 2 Subjunctives
- 3 Infinitives
- 4 Summary of the facts
- 5 The interpretation of *sig*: binding versus coreference
- 6 Conclusion: issues for further research

1 Two domains

As outlined in Thráinsson (1976),¹ *sig* in Icelandic may take a long-distance antecedent when the clause that contains *sig* is infinitive or subjunctive (i.e., the antecedent may be beyond the nearest c-commanding subject), in violation of Condition A of the Canonical Binding Theory (CBT, Chomsky 1981). However, if *sig* is contained in an indicative clause, it can only refer to the local antecedent. This is exemplified in (1):²

(1) Icelandic

- a. Jón_j skipaði Pétri_i [að PRO_i raka-INF sig_{i,j,*k} á hverjum degi]
John ordered Peter to shave SIG every day
- b. Jón_j segir [að Pétur_i raki-SBJV sig_{i,j,*k} á hverjum degi]
John says that Peter shaves SIG every day
- c. Jón_j veit [að Pétur_i rakar-IND sig_{i,*j,*k} á hverjum degi]
John knows that Peter shaves SIG every day

The Wiley Blackwell Companion to Syntax, Second Edition.

Edited by Martin Everaert and Henk C. van Riemsdijk.

© 2017 John Wiley & Sons, Inc. Published 2017 by John Wiley & Sons, Inc.

DOI: 10.1002/9781118358733.wbsyncom042

The proposals in the literature to account for the long-distance use of *sig* in sentences like (1a) and (1b) can be divided into two groups. One group assumes a unified binding analysis of long-distance *sig* in subjunctives and infinitives. One of these analyses is Anderson's (1986) "Tense-Agreement" account of Icelandic anaphora. Anderson postulates an "anaphoric domain" in which *sig* has to be bound by a "superordinate subject."³ Infinitive complements always constitute an anaphoric domain, whereas in subjunctives an anaphoric domain is established when a rule of "Tense-Agreement," which copies the tense of the matrix clause onto the subjunctive complement, has applied. It follows that *sig* can take a long-distance antecedent out of infinitives and subjunctives, given that an anaphoric domain has been established in subjunctives. Thus the same account, stated in terms of an anaphoric domain, is given for long-distance *sig* in infinitives and subjunctives.⁴ Also, both the Parameterized Binding Theory, developed in Wexler and Manzini (1987),⁵ and the head movement analysis of anaphors, proposed in Pica (1985; 1987),⁶ treat long-distance *sig* in subjunctives and infinitives in a parallel fashion. Within the Wexler and Manzini (1987) Parameterized Binding Theory, the governing category for *sig* is determined by [+indicative mood], and thus the antecedent possibilities for *sig* should be the same out of infinitives and subjunctives. Similarly, Pica (1987) proposes that *sig* undergoes head movement out of infinitives and subjunctives at the level of logical form, again predicting parallel antecedent possibilities on the two conditions.

The other approach to long-distance anaphora in Icelandic maintains that the long-distance use of *sig* out of subjunctives is ruled by discourse factors rather than by "standard" syntactic principles (but see section 6 on how these may be unified in the end). Thráinsson (1976; 1990; 1991), Maling (1984), Sells (1987), Sigurðsson (1990), and Sigurjónsdóttir (1993) observe that the antecedent possibilities of long-distance *sig* in subjunctives are not constrained by structural conditions such as c-command, but rather by discourse factors such as perspective or point of view. Also, as pointed out by Thráinsson (1976; 1990), the presence of a subjunctive complement is not enough to license long-distance use of *sig*. Thus only a certain type of subjunctives allows *sig* to take a long-distance antecedent, in particular subjunctives that imply "a report from the higher subject's 'point of view'" (Thráinsson 1976, 229). Subjunctives that state a fact about the matrix subject and do not convey the higher subject's perspective or point of view, on the other hand, do not allow *sig* to be coindexed with the matrix subject. Thus the long-distance use of *sig* is not uniquely determined by the presence of a subjunctive complement. Rather it looks as if discourse information can only be accessed if there is a subjunctive. If it can, it still has to be of the "right kind."

Hagège (1974) and Clements (1975) subsume the use of long-distance *sig* in subjunctives under logophoricity (see Logophoricity). This idea was further pursued in Maling (1984). A semantic characteristic of logophoric pronouns is that they are used in "reportive contexts" to refer back to an individual (other than the speaker-narrator) whose speech, thought, feeling, or point of view is reported in the sentence (from Maling 1984, 211, 231). As discussed most extensively by Sigurðsson (1990), this more or less sums up the semantic properties of *sig* when it takes a long-distance antecedent from subjunctives.

These two approaches to long-distance anaphora in Icelandic make different predictions regarding the antecedent possibilities of *sig*. According to the first approach, long-distance *sig* should be subject to the same constraints in subjunctive and infinitive clauses; that is, structural conditions such as c-command and discourse factors should play the same role in both domains. The second approach predicts that long-distance *sig* in subjunctives and infinitives is governed by different factors. Whereas discourse factors should be relevant to the logophor *sig* in subjunctives, such factors should not play a role in the case of infinitives, where the interpretation of *sig* should only be constrained by the availability of a suitable c-commanding antecedent.

Such a difference between infinitival and subjunctive domains does not by itself exclude the possibility that strictly grammatical factors play a role in both. For instance, it could be that some grammatical factor associated with subjunctives, but not with infinitives, entails that logophoric interpretation is in principle admissible, whereas discourse factors determine whether the ensuing interpretation is well formed. This possibility will be discussed later. Until then the two approaches will be discussed at a more general level.

In the literature, the focus of research has been on the subjunctive domain and on how it differs from that of the indicative. Much less attention has been paid to the infinitive case, and until now the different tests for discourse versus syntactic principles have not been applied systematically to the two domains. This calls for a more detailed analysis of the mechanisms governing *sig* in subjunctives and infinitives, and an attempt will be made to give the relevant data in each case.

2 Subjunctives

It is a well-known fact that in Icelandic long-distance *sig* in subjunctives can take as its antecedent a non-c-commanding determiner phrase (DP). Thus, as first observed by Maling (1984), the DP *Jón* can serve as the antecedent of *sig* in sentences like (2), although it does not c-command the anaphor.

(2) Icelandic

- a. [DP skoðun Jóns_i] er [að sig_i-ACC vanti-SBJV hæfileika]⁷
 opinion John's is that SIG lacks talents
 'John's opinion is that SIG lacks talents.'

(see Maling 1984, 222)

- b. [DP álit Jóns_i]_j virðist [t_j vera [að ég hati-SBJV sig_i]]
 belief John's seems be that I hate SIG
 'John's belief seems to be that I hate SIG.'

- c. Björn sagði Pétri frá [DP ósk Jóns_i] um [að Ari sýndi-SBJV
 Björn told Peter about wish John's about that Ari showed
 sér_i virðingu]⁸
 SIG respect]
 'Björn told Peter about John's wish that Ari showed SIG respect.'

Furthermore, *sig* in subjunctives can refer to a non-c-commanding matrix object, as illustrated in (3):

(3) Icelandic

?Jón_i er masókisti. Það gleður Jón_i [að ég muni-SBJV lemja sig_i í hausinn með spýtu á morgun]

'John is a masochist. It pleases John that I will hit SIG in the head with a stick tomorrow.'

(see Sigurjónsdóttir 1993)

These sentences show that the antecedent possibilities of *sig* in the long-distance subjunctive case are not constrained by a c-command requirement. (There may be some ill-understood variation among speakers. Sigurðsson (1990) presents another case showing the same point.) By comparing these sentences to the ones in (4), we see that the antecedent-anaphor relations are discourse-dependent. The antecedent of *sig* must be the person (distinct from the speaker-narrator) whose perspective or point of view is reported in the sentence:

(4) Icelandic

a. *[_{DP}skoðun Jóns_i] fær mig til að halda
 opinion John's leads me to to believe
 [að sig_i-ACC vanti-SBJV hæfileika]
 that SIG lacks talents

'John's opinion leads me to believe that SIG lacks talents.'

(see Maling 1984, 222)

b. *[_{DP}vínur Jóns_i] telur [að ég hati-SBJV sig_i]
 friend John's believes that I hate SIG
 'John's friend believes that I hate SIG.'

c. *Þetta vandamáli krafðist þess [að við hugsuðum-SBJV
 this problem demanded it that we thought
 stöðugt um sig_i]
 constantly about SIG

'This problem demanded that we constantly thought about SIG.'

(see Sigurðsson 1990, 335)

In the ill-formed sentences in (4), the coindexed DP bears the same structural relation to *sig* as in the well-formed sentences in (2). The difference between these two sets of sentences is that in (2) *Jón* is the person (distinct from the speaker) whose opinion, belief, or wish is reported in the sentence. In (4a) and (4b), on the other hand, the sentences are not reported from *Jón*'s point of view; rather it is the first person pronoun 'me' in (4a) and the DP 'John's friend' in (4b) that carry the perspective of these sentences. This analysis is further supported by the example in (4c), which shows that, despite its position of c-command, an inanimate DP, which cannot possibly be a perspective holder, cannot serve as the antecedent for *sig* in subjunctives.⁹

Also, it has been noted in the literature (Maling 1984, 232; Sigurðsson 1990, 336) that passives in Icelandic do not in general allow their subject to serve as a long-distance antecedent for *sig* in the cases considered. If *sig* in an embedded

subjunctive is ruled by discourse factors, the derived subject of a passive should not be able to serve as an antecedent for *sig*, since a derived subject does not carry the perspective or point of view of the sentence. This is illustrated in (5):

- (5) Icelandic
- a. Jón_i sagði Pétri_j [að ég elskaði-SBJV sig_{i,*j}]
'John told Peter that I loved SIG.'
 - b. Pétri_j var sagt (af Jóni_i) [að ég elskaði-SBJV sig_{*i,*j}]
'Peter was told (by John) that I loved SIG.'

In (5a) *sig* takes the perspective-holding subject *Jón* as its antecedent, but in the passive sentence in (5b), where neither *Jón* nor *Pétur* bears the perspective of the sentence, *sig* cannot refer to the c-commanding subject or to the object of the *by* phrase.¹⁰

The minimal pair in (6), reported in Sells (1987, 451), is further evidence that the antecedent possibilities of *sig* in subjunctives are determined by discourse factors:

- (6) Icelandic
- a. barnið_i lét ekki í ljós [að það hefði-SBJV verið hugsað vel
the child put not in light that there had been thought well
um sig_i]
about SIG
'The child didn't reveal that SIG had been taken good care of.'
 - b. *barnið_i bar þess ekki merki [að það hefði-SBJV verið
the child bore it not signs that there had been
hugsað vel um sig_i]
thought well about SIG
'The child didn't look as if SIG had been taken good care of.'

The difference in grammaticality between (6a) and (6b) can be attributed to the fact that, in the (6a) sentence, the report is made from the child's point of view; that is, it is the child, and not the speaker, who didn't reveal that he/she had been taken good care of, whereas in the (6b) sentence it is the speaker who reports that the child didn't look as if he/she had been taken good care of. Hence *sig* in subjunctives demands an antecedent that bears the perspective or point of view of the sentence, and whether or not this DP c-commands the anaphor is irrelevant.

A final indication of the crucial role of perspective is provided by (7):

- (7) Icelandic
- María var alltaf svo andstyggileg. þegar Ólafur_j kæmi segði hún sér_{i/*j} áreiðanlega að fara.
- (Thráinsson 1991, citing Sigurðsson 1986 and 1990)
- 'Mary was always so nasty. When Olaf would come, she would certainly tell himself [the person whose thoughts are being presented – not Olaf] to leave.'

In this context, which represents an internal monologue, *sig* is interpretable even in the absence of a linguistic antecedent – and hence surely in the absence of c-command – namely as the person whose thoughts are being presented. This possibility *a fortiori* applies to cases where an envisaged antecedent/perspective holder is in fact represented in a preceding sentence.

3 Infinitives

This pattern contrasts with what we find in infinitives. Here the derived subject of a passive is a possible antecedent for *sig*, even if it is not a perspective holder. That c-command is sufficient is witnessed by the examples in (8) and (9).

(8) Icelandic

Jón_i sagði [Maríu_j hafa-INF látið [mig þvo-INF sér_{i,j}]]
 John said Mary have made me wash SIG
 'Jon said that Mary had made me wash him/her.'

(9) Icelandic

Maria var sögð (af Jóni_i) [t_j hafa-INF látið [mig þvo-INF sér_{j,*i}]]
 Mary was said (by John to have made me wash her/*him
 'Mary was said (by John) to have made me wash her/*him.'

It is illuminating to compare the pair in (8) and (9) to that in (5), repeated below:

(5) Icelandic

- a. Jón_i sagði Pétri_j [að ég elskaði-SBJV sig_{i,*j}]
 'John told Peter that I loved SIG.'
- b. Pétri_j var sagt (af Jóni_i) [að ég elskaði-SBJV sig_{*i,*j}]
 'Peter was told (by John) that I loved SIG.'

As exemplified in (9), *sig* in an infinitive complement can take the subject of a passive sentence as its antecedent, although this subject does not carry the perspective or point of view of the sentence. In the parallel (5b), binding by the derived subject is impossible. This shows that only c-command determines the antecedent possibilities of *sig* in infinitives.¹¹

The following facts contribute to the picture, even if they would not be conclusive by themselves. For instance, *sig* in infinitives can only take a matrix subject and not a matrix object as an antecedent (see Thráinsson 1979; 1991; Sigurjónsdóttir 1993). This is illustrated in (10):

(10) Icelandic

- a. Jón_i skipaðimér_j [að PRO_j lemja-INF sig_i]
 John ordered me to hit SIG
- b. *Eg_j hótaði Jóni_i [að PRO_j lemja-INF sig_i]
 I threatened John to hit SIG

Note that the contrast between (10a) and (10b) could follow from the difference in perspective these sentences could be argued to show. But, given that perspective is not operative here, as shown by (9), appeal to the difference in c-command is needed to account for the contrast.¹² The sentences in (11) provide an interesting (near-)parallel to those in (2), repeated below (11).

The sentences in (11) contain a propositional attitude noun with a possible perspective holder that does not c-command *sig*, while the latter is in an infinitival complement.

(11) Icelandic

- a. *_{[DPskoðun Jóns_i]_j} virðist [_{t_j} vera-_{INF} hættuleg fyrir sig_i]
 opinion John's seems to be dangerous for SIG
 'John's opinion seems to be dangerous for SIG.'
- b. *_{[DPósk Jóns_i]_j} er líkleg til [_{t_j} að hafa-_{INF} slæmar afleiðingar fyrir sig_i]
 wish John's is likely to to have bad consequences for SIG
 'John's wish is likely to have bad consequences for SIG.'
- c. *_{[DPálit Jóns_i]_j} er sagt [_{t_j} hæfa-_{INF} sér_i vel]
 belief John's is said suit SIG well
 'John's belief is said to suit SIG well.'

Despite the close structural correspondence to the well-formed sentences in (2), the sentences in (11) are ruled out.¹³

(2) Icelandic

- a. [_{DPskoðun Jóns_i]} er [að sig_i-_{ACC} vanti-_{SBJV} hæfileika]
 opinion John's is that SIG lacks talents
 'John's opinion is that SIG lacks talents.'
 (see Maling 1984, 222)
- b. [_{DPálit Jóns_i]_j} virðist [_{t_j} vera [að ég hati-_{SBJV} sig_i]]
 belief John's seems to be that I hate SIG
 'John's belief seems to be that I hate SIG.'
- c. Björn sagði Pétri frá [_{DP ósk Jóns_i]} um [að Ari sýndi-_{SBJV} sér_i virðingu]
 Björn told Peter about wish John's about that Ari showed
 SIG respect]
 'Björn told Peter about John's wish that Ari showed SIG respect.'

This shows that in infinitival clauses a non-c-commanding antecedent is unable to bind *sig*. One may try to go one step further. The sentences in (11) could be argued to indicate that, for *sig* in infinitival clauses, discourse factors are unable to compensate for the lack of c-command. But, as pointed out by an anonymous reviewer, for the latter conclusion this fact is not decisive since, unlike what we see in (2), the complement clause is not interpreted as being in the scope of the attitude noun. So, in order to control for this factor, one should test structures of the form (12):

(12) Jon's wish is for SIG to have talent.

However, as Sigga Sigurjónsdóttir (p.c.) informed me, a structure such as (12) or any other structure with the required properties does not exist in Icelandic. This leaves us with the contrast between the ill-formed (5b) and the well-formed (9), and the contrasts in the effect of c-command between (2) and (11). These contrasts are enough to establish the point.

4 Summary of the facts

There are consistent differences between the conditions on long-distance antecedents for *sig* in subjunctive and in infinitive complement clauses. *Sig* in subjunctives is constrained by discourse factors; in particular, the antecedent of *sig* has to be the

person (other than the speaker-narrator) whose perspective or point of view is presented in the sentence, and whether or not this antecedent *c*-commands *sig* is irrelevant (see examples (2), (3), and (4)). A linguistic antecedent may even be absent, as in (7). The antecedent possibilities of *sig* in infinitives, on the other hand, are uniquely governed by the structural condition of *c*-command, and discourse factors are not reflected in this domain (see example (11)). Thus *sig* in subjunctives cannot refer to an inanimate DP (see example (4c)) or normally to the derived subject of a passive (see example (5b)), since these DPs cannot serve as perspective holders. Subjects of passive sentences (see example (9)) can serve as antecedents for *sig* in infinitives, just on the basis of *c*-command. Moreover, *sig* in infinitives cannot take a non-*c*-commanding matrix object as an antecedent (see example (10b)), whereas *sig* in subjunctives can, given that the object bears the perspective or point of view of the sentence (see example (3)). Non-local inanimate antecedents of *sig* are considered dubious, though, presumably since *sig* – which is not marked for number and gender – is marked for third person, with a further restriction that it be a *possible* discourse participant, which entails animacy. (This in turn may suggest that non-local binding of *sig* also proceeds through the Force center of the clause containing it; see section 6.)

If the mechanisms governing *sig* in subjunctives and infinitives were of the same type, as proposed, among others, by Anderson (1986), Wexler and Manzini (1987), and Pica (1985; 1987), these differences would be unexpected. Non-*c*-commanding antecedents should then be equally available in infinitives and in subjunctives, and non-perspective-holding DPs (such as inanimate and passive subjects) should be able to serve as antecedents for *sig* in subjunctives just as in infinitives. It appears that the Icelandic data are only consistent with analyses that differentiate between the mechanisms governing long-distance *sig* in subjunctives and infinitives.

5 The interpretation of *sig*: binding versus coreference

Since Reinhart's work on anaphoric relations, it has been established that syntactic binding requires *c*-command (see Reinhart 1983 for detailed discussion of the properties of the *c*-command relation). One might, of course, entertain the possibility that syntactic binding of some sort is nevertheless involved in cases such as (2), since certain types of binding, for instance variable binding, appear to allow violations of *c*-command (as in *every boy's mother loves him*).¹⁴

However, as discussed in Thráinsson (1991, 60), the strict/sloppy identity ambiguity typically associated with pronouns also shows up with *sig* in the case of long-distance subjunctives and is sensitive to differences in *c*-command. Example (13) shows the strict/sloppy ambiguity:

(13) Icelandic

Jóni telur [að prófessorinn muni fella-SBJV sig_i á prófinu] og Ari_j telur það líka.

'John believes that the professor will fail SIG on the test and Ari believes so too.'

a. = Ari believes that the professor will fail Ari on the test

b. = Ari believes that the professor will fail John on the test

Where *sig* in subjunctive contexts is not c-commanded by its long-distance antecedent, the sloppy reading is much harder to obtain. This is illustrated in (14):

- (14) Icelandic
 skoðun Jóns_i er [að sig_i vanti hæfileika] og það er skoðun Péturs_j líka
 opinion John's is that SIG lacks talents and that is opinion Peter's too
 'John's opinion is that SIG lacks talents and that is Peter's opinion too.'
 a. = ??Peter's opinion is that Peter lacks talents
 b. = Peter's opinion is that John lacks talents

This is evidence that the relation between *Jón* and *sig* in a subjunctive context such as (14) must be one of coreference rather than syntactic binding.¹⁵

The conclusion is strengthened by the fact that *sig* may occur, and be interpreted, without any linguistic antecedent whatsoever, as we saw in (7), which is repeated here:

- (7) Icelandic
 María var alltaf svo andstyggileg. þegar Ólafur; kæmi segði hún sér_{i/*j} áreiðanlega
 að fara.
 (Thráinsson 1991, citing Sigurðsson 1986 and 1990)
 'Mary was always so nasty. When Olaf would come, she would certainly tell
 himself [the person whose thoughts are being presented – not Olaf] to leave.'

In such cases *sig* must be able to get its interpretation just as pronominals do. The most straightforward interpretation of such facts is that there is no intrinsic necessity for elements like *sig* to be *syntactically* linked to their antecedent in order for them to be interpreted (but see below for some further remarks).¹⁶

6 Conclusion: issues for further research

We found a consistent difference between the conditions on long-distance antecedents for *sig* in subjunctive and infinitive complement clauses. The interpretation of *sig* in subjunctives is constrained by discourse factors; the interpretation of *sig* in infinitives just involves a c-command relation with its antecedent.

Ideally, such differences should follow from a general theory about the interplay between structural conditions and discourse factors and about the nature of logophoric interpretation. Developing such a theory is still one of the concerns of current anaphora research.

One of the starting points for such a theory is what is known about the nature of logophoric interpretation (see Logophoricity). Another starting point is what is known about anaphors in other languages. Napoli (1979) observes that Italian *se/si* can only have a long-distance antecedent in positions where it cannot cliticize. In Reuland (1990) it is argued that cliticization leads to the syntactic encoding of an interpretive dependency. In English, *himself* can have a logophoric interpretation in positions where establishing a syntactic dependency by head movement of SELF to the verb would be blocked (Reinhart and Reuland 1991; Reuland 2011; see Pollard and Sag 1992 for a related idea).

Returning to Icelandic, as argued in Reuland (2001; 2011), the role of the subjunctive in licensing logophoric *sig* is again that of blocking a syntactic dependency between *sig* and a more local antecedent. Thus, what is observed in these languages appears to be governed by the following regularity (with precursors in Reinhart and Reuland 1991; 1993; Pollard and Sag 1992):

- (15) Free anaphors are facilitated not by a syntactic encoding process that applies, but by a syntactic encoding process that is blocked.

An important issue that I haven't touched on in the present chapter so far is the role of the left periphery in encoding discourse access (see Logophoricity for more discussion). To what extent are the participants in the utterance event represented in the left periphery as dedicated functional heads (see for instance Speas and Tenny 2002)? On the basis of ideas from Sigurðsson (2004), Sigurðsson (2011) provides interesting evidence that the licensing of null objects in Germanic proceeds through the left periphery. Delfitto and Fiorin (2011) do the same for the interpretation of first- and second-person pronouns, extending the analysis to logophoric pronouns in Amharic. They specifically relate it to the Force center. So far, no specific implementation along such lines has been published for logophoric *sig* in Icelandic. An analysis of non-local binding of simplex anaphors in Mainland Scandinavian that involves the left periphery of infinitival clauses is presented in Reuland (2011). This analysis, however, does not address the restriction on inanimate antecedents mentioned in section 4. How generally this restriction obtains is a matter for further research.

The question is to what extent such an analysis is compatible with the insight in (15) that free anaphors are facilitated by the failure of some syntactic encoding process to apply. In fact, however, also analyses of free anaphors involving the left periphery crucially depend on (15). Any syntactic process, be it based on Move or on Agree, that provides a more local antecedent for the anaphor will cause an intervention effect between the anaphor and the relevant position in the left periphery. Thus, in line with (15), any such process must indeed be prevented from applying, in order for the anaphor to be able to relate to the envisaged peripheral position. Note that, if this is on the right track, the logophoric interpretation of a free anaphor may also involve a syntactic process. If so, (15) should be reformulated as (16):

- (16) The logophoric interpretation of free anaphors is facilitated by a more local syntactic encoding process that is blocked.

As a final remark, note that the role of the subjunctive in this process is not entirely settled. As pointed out by Halldór Sigurðsson, there are speakers who accept logophoric reflexives in indicative environments, provided that the indicative can be interpreted as having perspective semantics. This is reminiscent of the conditions on long-distance anaphors in Faroese (Barnes 1986), which are discussed in Long-Distance Binding in Germanic Languages. If so, the crucial question is how perspective semantics is syntactically encoded. If perspective semantics is structurally encoded in a way similar to that of the subjunctive, the relevant conditions may be satisfied at a more general level.

Although much work remains to be done for a full picture, the outlines appear to be clear. More extensive discussion would lead us beyond the scope of this chapter.

Acknowledgments

This chapter is based on work with Sigríður Sigurjónsdóttir (Reuland and Sigurjónsdóttir 1997). I subsequently used this material as section 8.5 in my 2011 book *Anaphora and Language Design*. When I was preparing the book I received a number of further comments, which I also incorporated into the present version. I added a few further updates and some discussion of future developments in the final section. I am very grateful to Halldór Sigurðsson and Sigríður Sigurjónsdóttir for the many occasions on which they supplied me with important information and to my anonymous reviewers, both those of the previous version and those of the present version, for their helpful comments. All errors are my own.

SEE ALSO: Bound Variable Anaphora; Logophoricity; Long-Distance Anaphora: Syntax and Discourse; Long-Distance Binding in Germanic Languages; Reflexive Marking in Romance: Voice and Feature Deficiency; Switch Reference and Obviation

Notes

1. See also Thráinsson (1979; 1990; 1991); Maling (1984; 1986); Anderson (1986); Rögnvaldsson (1986); Sells (1987); Sigurðsson (1990); Sigurjónsdóttir (1993) – among others.
2. One may abstract away from the two different verb classes that have different effects on the interpretation of *sig*. With one class of verbs, exemplified by the verb *raka* ‘shave’ in (1), *sig* can take either a local or a long-distance antecedent in the infinitive and subjunctive domain, whereas with the other class of verbs *sig* can only refer to the long-distance antecedent. These facts will not be discussed, since the class of verbs only affects the interpretation of *sig* in the local domain, which is not the domain that concerns us here. These lexical effects in Icelandic (first noted by Thráinsson) are described by Hyams and Sigurjónsdóttir (1990); Sigurjónsdóttir and Hyams (1992); and Sigurjónsdóttir (1993). Similar lexical effects have been discussed by Everaert (1986) and Reinhart and Reuland (1989; 1991; 1993) for Dutch and by Hellan (1988) for Norwegian.
3. Anderson (1986, 76) gives the following definition of an anaphoric domain: “The ANAPHORIC DOMAIN of A is the minimal S or NP containing A, a governor of A, and a subject of either tensed S or NP which c-commands A.”
4. Anderson’s proposal accounts for the fact that, in embedded infinitives in Icelandic, *sig*, but (normally) not the pronouns, can take the matrix subject as its antecedent, whereas both *sig* and the pronouns can refer to the matrix subject in subjunctives. The obligatoriness of *sig* in this domain in infinitives follows from Anderson’s analysis, since an infinitive and its matrix clause always constitute an anaphoric domain. The rule of tense agreement, on the other hand, optionally applies to the subjunctive clause, and hence either an anaphoric domain is established and *sig* refers to the matrix subject or there is no anaphoric domain, in which case a pronoun is used to refer to the long-distance antecedent. An alternative analysis for these facts is proposed in Sigurjónsdóttir (1993).
5. See also Manzini and Wexler (1987); Koster (1984); and Yang (1984).

6. See also Lebeaux (1983; 1985) and Chomsky (1986).
7. Note that *sig* in Icelandic cannot license “subject verb” agreement (see Everaert 1990 and the discussion in Reuland 2011, 5.8.2). Hence, *sig* can occur in subject position only with those verbs that select a non-nominative subject, that is, with the so-called “quirky” case verbs in Icelandic. The verb *vanta* ‘to lack, need’, which appears in example (2a), is one of these verbs and takes an accusative subject. Quirky subjects in Icelandic have been discussed by a number of authors: see for example Andrews (1976); Thráinsson (1979); Bernóðsson (1982); Zaenen, Maling, and Thráinsson (1985); and Sigurðsson (1989; 1992).
8. Note that there are two DPs in this sentence whose perspective or point of view is being reported, namely *Jón* and *Björn*. Hence *sig* could also take *Björn* as its antecedent.
9. A reviewer wonders about the factors that enter into determining perspective and point of view. Are these dependent on semantic properties of verbs or on thematic roles carried by the arguments involved? In fact many factors could contribute. Crucial is only the end result, namely the way in which the sentence is linked to the discourse. As shown by example (7), which reflects an inner monologue, the conditions can be met by context alone. This is also reflected in the judgment on an example the reviewer adduces. The reviewer raises the question of whether SIG can have the value ‘Peter’ in a case like (i):

(i) Icelandic

- a. Peter was heartbroken. John just told him that I don’t love SIG.
- b. Peter was heartbroken. He was just told that I don’t love SIG.

I consulted two native speakers, who provided me with slightly different renderings of these examples and with some interesting variation in judgment, which indicates that it is unlikely that purely structural conditions are involved. One rendering is given in (ii):

(ii) Icelandic

- a. Pétur er harmi lostinn. Jón sagði honum að ég elskaði sig ekki.
Pétur is grief struck. Jón told him that I loved SIG not
- b. Pétur er harmi lostinn. Honum var sagt að ég elskaði sig ekki.
Pétur is grief struck. Him.DAT was told that I loved SIG not

According to this speaker, both examples are ungrammatical with *Pétur* as the antecedent, while (iia) is OK with *Jón* as the antecedent (although pragmatically it is a bit weird). Another speaker provides me with the translation and judgments in (iii):

(iii) Icelandic

- a. Pétur var alveg miður sín. Jón var nýbúinn að segja honum að ég elskaði
*/[?]SIG/HANN ekki.
Peter was just beside himself. John was just finished to tell him that I loved
SIG not.
‘Peter felt really bad. John had just told him that I did not love SIG.’
- b. Pétur var alveg miður sín. Honum var sagt að ég elskaði SIG/HANN ekki.
Peter was just beside himself. Him (DAT) was told that I loved SIG not.
‘Peter felt really bad. He was told that I did not love SIG.’

In this speaker’s judgment, (iiib) allows both *sig* and *hann*. In (iiia) *hann* is preferred over *sig*, leaving open whether *sig* is a one- or two-star question mark. (Many thanks to Sigríður Sigurjónsdóttir and Halldór Sigurðsson for sharing their judgments with me.) The

question is why there can be variation, and modulo this variation, why there can be a contrast in (iii). As discussed in Logophoricity, Sells (1987) distinguishes the following factors – and notes that languages may differ as to which factors license logophoricity:

- (iv) SOURCE: one who is the intentional agent in a communication,
- SELF: one whose mental state or attitude the content of the proposition describes,
- PIVOT: one with respect to whose (space–time) location the content of the proposition is evaluated.

Clearly, the most straightforward way to interpret either text in (i) is as a description of a state of affairs. If so, no licensing of a logophoric interpretation of *sig* is to be expected, and this is reflected in the first speaker’s judgment. Hence the question is how easily a person allows the text to be coerced in the required manner – and what this would take. Consider a speaker who is able to interpret the first sentence as an indirect rendering of Peter’s internal thought process. If so, Peter could qualify as a SELF, and indirectly also as SOURCE, and could serve as a licenser of a logophoric *sig*. However in order for this to be possible, the protagonist should also qualify as a SELF in the second sentence. The contrast between (iiia) and (iiib), then, reflects the fact that there is topic continuity in (iiib) but not in (iiia), and the SELF-role carries over (and see note 10 for another case of a derived subject as a perspective holder). The object pronoun in (iiia) is ill suited to serve as an instrument of continuity. Note, further, that objects are generally not the perspective-holding DP of a sentence and hence rarely qualify as antecedents for the logophor *sig*, although, again, it is not impossible to coerce them this way (see Sigurðsson 1990, 334). For more discussion of logophoricity per se, the reader is referred to Logophoricity.

10. As observed by Sigurðsson (1990, n. 22), the exceptions to this generalization show that the passive as such does not block long-distance coreference of *sig*. Thus, as illustrated in (i), the derived subject of a passive (in this case, *honum* ‘him’) can serve as an antecedent for *sig* in subjunctives, given that it carries the perspective or point of view of the sentence. As pointed out by Sigurðsson, “made x to believe” implies “x believes”:

(i) Icelandic

Honum_i (DAT) var talin trú um [að sig_i (ACC) vantadi_(SBJV) hæfileika]
 him was made belief about that SIG lacked talents
 ‘He was made to believe that SIG lacked talents.’

(see Maling 1984, n. 28)

11. As Halldór Sigurðsson (personal communication) points out, under the current copy theory of movement (Chomsky 1995 and subsequent work), some of the infinitival cases discussed here fall under a clause-internal scenario. For the argument it suffices that moving the envisaged antecedent into the higher clause does not add any possibilities not present in its position of first merge.

He also points out that, to his ear, (i) is only slightly less natural than (2a):

(i) Icelandic

Krafa Jóns_i til okkar_j um [að PRO_j styðað sig_i við
 demand John’s to us about to support SIG under
 Þessar aðstæður] er skiljanleg.
 these circumstances is understandable

‘John’s demand that we support him under these circumstances is understandable.’

Nevertheless, there is a contrast, as we would expect. Note that the infinitival clause in this case is a complement to the head noun *krafa* ‘demand’. Hence it depends on ill-understood details of the internal structure of the DP whether or not *Jóns* c-commands *sig*.

Sigurðsson also notes that the sentences in (ii) are not as good as their counterparts in (7) and (8) (in contrast to what is reported in Reuland and Sigurjónsdóttir 1997):

(ii) Icelandic

a. ^{??}Jón_i sagði [_{þetta} vandamál_j hafa_{INF} neytt okkur_k til [að PRO_k leysa_{INF} sig_j]].
John said this problem have forced us to to solve SIG

‘John said this problem to have forced us to solve SIG.’

b. ^{??}Þetta vandamál_j var sagt [_{t_j} hafa_(INF) neytt okkur_k til [að PRO_k leysa_{INF} sig_j]].
This problem was said have forced us to solve SIG

‘This problem was said to have forced us to solve SIG.’

The sentences in (iii) are perfect, however:

(iii) Icelandic

a. Jón sagði [_{þetta} vandamál_i hafa mint á sig_i].
John said this problem have reminded of SIG

b. Þetta vandamál_i var sagt [_{t_i} hafa mint á sig_i].
This problem was said have reminded of SIG

Although (8) and (9) suffice to prove the main point in the argumentation, one may wonder what causes the contrast between (ii) and (iii). One possibility is that there is an independent difference in lexical semantics between *remind* and *force*, making the latter less easily compatible with an inanimate subject. Alternatively, it could be the case that LD-bound *sig* favors an animate antecedent. I will tentatively go for the first possibility—keeping in mind the option that the contrast has a deeper cause.

12. I am making here the standard assumption that in (10b) *hótaði* is first merged with its theme object *Jóni*. Subsequently the subordinate clause is merged.
13. These and other non-attributed examples are from Reuland and Sigurjónsdóttir (1997).
14. Note, that in such cases appearances are deceptive, since binding is only allowed under the reading where *every boy* also scopes over *mother*, which is compatible with an adjunction structure, such that, under a definition of c-command that reflects the segment–category distinction, *every boy* does c-command *him* (see Reuland 2011: ch. 2 for discussion).
15. Locally bound *sig* does not allow a strict reading. This is illustrated in (i):

(i) Icelandic

Jón_i rakaði sig_i og Pétur_j gerði það líka.
‘John shaved SIG and Peter did so too.’
≠ Peter shaved John.

Yet in the long-distance infinitive case both readings are possible:

(ii) Icelandic

Jón_i skipaði prófessorum_j [a PRO_j fella_{INF} sig_i á prófinu] og Ari gerði það líka.
‘John ordered the professor to fail SIG on the test and Ari did so too.’

- a. = Ari ordered the professor to fail Ari on the test.
- b. = Ari ordered the professor to fail John on the test.

This may indicate that what forces the sloppy reading in (i) is not a property of the antecedent–anaphor relation but a property of the predicate. In (i) the copied predicate is intrinsically reflexive, whereas (ii) has no reflexive predicate (see Sigurjónsdóttir 1993 for discussion of intrinsic reflexives in Icelandic).

16. Elaborating ideas from Reinhart and Reuland (1991), Reuland (2001; 2011) proposes that *sig* enters into an Agree-based dependency with T_{AGR}. In this position, it is proposed, it copies the \varnothing -features from Agr, but also the value that Agr receives by agreement with the subject. Hence the subject orientation of this type of anaphor.

References

- Anderson, Stephen. 1986. "The Typology of Anaphoric Dependencies: Icelandic (and Other) Reflexives." In *Topics in Scandinavian Syntax*, edited by Lars Hellan and Kirsti Koch Christensen, 65–88. Dordrecht: Reidel.
- Andrews, Avery. 1976. "The VP Complement Analysis in Modern Icelandic." In *Proceedings of the North Eastern Linguistic Society 6*, edited by Alan Ford, John Reighard, and Rajendra Singh, 1–21.
- Barnes, Michael. 1986. "Reflexivisation in Faroese." *Arkiv för Nordisk Filologi*, 101: 95–126.
- Bernódusson, Helgi. 1982. "Opersónulegar Setningar." PhD diss., University of Iceland.
- Chomsky, Noam. 1981. *Lectures on Government and Binding*. Dordrecht: Foris.
- Chomsky, Noam. 1986. *Knowledge of Language: Its Nature, Origin and Use*. New York, NY: Praeger.
- Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge, MA: MIT Press.
- Clements, George. 1975. "The Logophoric Pronoun in Ewe: Its Role in Discourse." *Journal of West African Languages*, 10: 141–177.
- Delfitto, Denis, and Gaetano Fiorin. 2011. "Person Features and Pronominal Anaphora." *Linguistic Inquiry*, 42 (3): 193–224.
- Everaert, Martin. 1986. *The Syntax of Reflexivization*. Dordrecht: Foris.
- Everaert, Martin. 1990. "Case Theory and Binding Theory." *Edinburgh Working Papers in Cognitive Science*, 6: 87–108.
- Hagège, Claude. 1974. "Les pronoms logophoriques." *Bulletin de la Société de Linguistique de Paris*, 69: 287–310.
- Hellan, Lars. 1988. *Anaphora in Norwegian and the Theory of Grammar*. Dordrecht: Foris.
- Hyams, Nina, and Sigríður Sigurjónsdóttir. 1990. "The Development of Long Distance Anaphora: Cross-Linguistic Comparison with Special Reference to Icelandic." *Language Acquisition*, 1: 57–93.
- Koster, Jan. 1984. "On Binding and Control." *Linguistic Inquiry*, 15: 417–459.
- Lebeaux, David. 1983. "A Distributional Difference between Reciprocals and Reflexives." *Linguistic Inquiry*, 14: 723–730.
- Lebeaux, David. 1985. "Locality and Anaphoric Binding." *Linguistic Review*, 4: 343–363.
- Maling, Joan. 1984. "Non-Clause-Bounded Reflexives in Modern Icelandic." *Linguistics and Philosophy*, 7: 211–241.
- Maling, Joan. 1986. "Clause-Bounded Reflexives in Modern Icelandic." In *Topics in Scandinavian Syntax*, edited by Lars Hellan and Kirsti Koch Christensen, 53–63. Dordrecht: Reidel.
- Manzini, Maria Rita, and Kenneth Wexler. 1987. "Parameters, Binding Theory, and Learnability." *Linguistic Inquiry*, 18: 413–444.

- Napoli, Donna-Jo. 1979. "Reflexivization across Clause Boundaries in Italian." *Journal of Linguistics*, 15: 1–28.
- Pica, Pierre. 1985. "Subject, Tense and Truth: Towards a Modular Approach to Binding." In *Grammatical Representation*, edited by Jacqueline Guéron, Hans-Georg Obenauer, and Jean-Yves Pollock, 259–291. Dordrecht: Foris.
- Pica, Pierre. 1987. "On the Nature of the Reflexivization Cycle." In *Proceedings of the North Eastern Linguistic Society 17*, edited by Joyce McDonough and Bernadette Plunkett, 483–499.
- Pollard, Carl, and Ivan Sag. 1992. "Anaphors in English and the Scope of the Binding Theory." *Linguistic Inquiry*, 23: 261–305.
- Reinhart, Tanya. 1983. *Anaphora and Semantic Interpretation*. London: Croom Helm.
- Reinhart, Tanya, and Eric Reuland. 1989. "Anaphoric Territories." MS, Tel Aviv University and Groningen University.
- Reinhart, Tanya, and Eric Reuland. 1991. "Anaphors and Logophors: An Argument Structure Perspective." In *Long-Distance Anaphora*, edited by Jan Koster and Eric Reuland, 283–321. Cambridge: Cambridge University Press.
- Reinhart, Tanya, and Eric Reuland. 1993. "Reflexivity." *Linguistic Inquiry*, 24: 595–652.
- Reuland, Eric. 1990. "Reflexives and Beyond: Non-Local Anaphora in Italian Revisited." In *Grammar in Progress*, edited by Juan Mascaró and Marina Nespors, 351–362. Dordrecht: Foris.
- Reuland, Eric. 2001. "Primitives of Binding." *Linguistic Inquiry*, 32: 439–492.
- Reuland, Eric. 2011. *Anaphora and Language Design*. Cambridge, MA: MIT Press.
- Reuland, Eric, and Sigríður Sigurjónsdóttir. 1997. "Long Distance 'Binding' in Icelandic: Syntax or Discourse?" In *Atomism and Binding*, edited by Hans Bennis, Pierre Pica, and Johan Rooryck, 323–340. Dordrecht: Foris.
- Rögnvaldsson, Eiríkur. 1986. "Some Comments on Reflexivization in Icelandic." In *Topics in Scandinavian Syntax*, edited by Lars Hellan and Kirsti Koch Christensen, 89–102. Dordrecht: Reidel.
- Sells, Peter. 1987. "Aspects of Logophoricity." *Linguistic Inquiry*, 18: 445–479.
- Sigurðsson, Halldór Ármann. 1986. "Moods and (Long-Distance) Reflexives in Icelandic." Working Papers in Scandinavian Syntax 25. Trondheim.
- Sigurðsson, Halldór Ármann. 1989. "Verbal Syntax and Case in Icelandic." PhD diss., University of Lund.
- Sigurðsson, Halldór Ármann. 1990. "Long Distance Reflexives and Moods in Icelandic." In *Modern Icelandic Syntax*, edited by Joan Maling and Annie Zaenen, 309–346. New York, NY: Academic Press.
- Sigurðsson, Halldór Ármann. 1992. "The Case of Quirky Subjects." *Working Papers in Scandinavian Syntax*, 49: 1–26.
- Sigurðsson, Halldór Ármann. 2004. "The Syntax of Person, Tense, and Speech Features." *Rivista di Linguistica*, 16: 1–36.
- Sigurðsson, Halldór Ármann. 2011. "Conditions on Argument Drop." *Linguistic Inquiry*, 42 (3): 267–304.
- Sigurjónsdóttir, Sigríður. 1993. "Binding in Icelandic: Evidence from Language Acquisition." *UCLA Working Papers in Psycholinguistics*, 2 (1), n.p.
- Sigurjónsdóttir, Sigríður, and Nina Hyams. 1992. "Reflexivization and Logophoricity: Evidence from the Acquisition of Icelandic." *Language Acquisition*, 2: 359–413.
- Speas, Margaret, and Carol Tenny. 2002. "Configurational Properties of Point of View Roles." In *Asymmetry in Grammar*, vol. 1: *Syntax and Semantics*, edited by Anna-Maria Di Sciullo, 321–411. Amsterdam: John Benjamins.

- Thráinsson, Höskuldur. 1976. "Reflexives and Subjunctives in Icelandic." In *Proceedings of the North Eastern Linguistic Society 6*, edited by Alan Ford, John Reighard, and Rajendra Singh, 225–239.
- Thráinsson, Höskuldur. 1979. *On Complementation in Icelandic*. New York, NY: Garland.
- Thráinsson, Höskuldur. 1990. "A Semantic Reflexive in Icelandic." In *Modern Icelandic Syntax*, edited by Joan Maling and Annie Zaenen, 289–307. New York, NY: Academic Press.
- Thráinsson, Höskuldur. 1991. "Long Distance Reflexives and the Typology of NPs." In *Long-Distance Anaphora*, edited by Jan Koster and Eric Reuland, 49–75. Cambridge: Cambridge University Press.
- Wexler, Ken, and Maria Rita Manzini. 1987. "Parameters and Learnability in Binding Theory." In *Parameter Setting*, edited by Thomas Roeper and Edwin Williams, 41–76. Dordrecht: Reidel.
- Yang, Dong-Wee. 1984. "The Extended Binding Theory of Anaphors." *Theoretical Linguistic Research*, 1: 195–218.
- Zaenen, Annie, Joan Maling, and Höskuldur Thráinsson. 1985. "Case and Grammatical Functions: The Icelandic Passive." *Natural Language and Linguistic Theory*, 3: 441–483.

Further readings

- Aikawa, Takako. 1993. "Reflexivity in Japanese and LF-Analysis of Zibun-Binding." PhD diss., Ohio State University.
- Anagnostopoulou, Elena, and Martin Everaert. 1999. "Towards a More Complete Typology of Anaphoric Expressions." *Linguistic Inquiry*, 30: 97–118.
- Ariel, Mira. 1990. *Accessing Noun-Phrase Antecedents*. London: Croom Helm.
- Battistella, Edwin. 1987. "Chinese Reflexivization." Paper presented at the 2nd Harbin Conference on Generative Grammar, Heilongjiang University, Harbin.
- Bouchard, Denis. 1984. *On the Content of Empty Categories*. Dordrecht: Foris.
- Cole, Peter, Gabriella Hermon, and C.-T. James Huang. 2001. *Long Distance Reflexives*. San Diego, CA: Academic Press.
- Cole, Peter, Gabriella Hermon, and L.-M. Sung. 1990. "Principles and Parameters of Long Distance Reflexives." *Linguistic Inquiry*, 21: 1–23.
- Everaert, Martin. 1991. "Contextual Determination of the Anaphor/Pronominal Distinction." In *Long-Distance Anaphora*, edited by Jan Koster and Eric Reuland, 77–118. Cambridge: Cambridge University Press.
- Giorgi, Alessandra. 1984. "Towards a Theory of Long Distance Anaphors: A GB Approach." *Linguistic Review*, 3: 307–359.
- Hara, Takaaki. 2001. "Reflexive Interpretation in Japanese." MS, UIL OTS, Utrecht.
- Heim, Irene, Howard Lasnik, and Robert May. 1991. "Reciprocity and Plurality." *Linguistic Inquiry*, 22: 63–103.
- Huang, C.-T. James. 1982. "Logical Relations in Chinese and the Theory of Grammar." PhD diss., MIT.
- Huang, C.-T. James, and C.-C. Jane Tang. 1991. "On the Local Nature of the Long-Distance Reflexive in Chinese." In *Long-Distance Anaphora*, edited by Jan Koster and Eric Reuland, 263–282. Cambridge: Cambridge University Press.
- Jayaseelan, K. A. 1997. "Anaphors as Pronouns." *Studia Linguistica*, 51: 186–234.
- Johnson, Kyle. 1985. "Some Notes on Subjunctive Clauses and Binding in Icelandic." *MIT Working Papers in Linguistics*, 6: 102–137.
- Katada, Fusa. 1991. "The LF Representation of Anaphors." *Linguistic Inquiry*, 22: 287–313.
- Koster, Jan. 1985. "Reflexives in Dutch." In *Grammatical Representation*, edited by Jacqueline Guéron, Hans Obenauer, and Jean-Yves Pollock, 141–168. Dordrecht: Foris.

- Manzini, Maria Rita. 1993. "The Subjunctive." *Paris 8 Working Papers*, 1.
- Postal, Paul M. 1971. *Cross-Over Phenomena*. New York, NY: Holt, Rinehart and Winston.
- Reinhart, Tanya. 2000. "Strategies of Anaphora Resolution." In *Interface Strategies*, edited by Hans Bennis, Martin Everaert, and Eric Reuland, 295–324. Amsterdam: Royal Netherlands Academy of Arts and Sciences.
- Reinhart, Tanya. 2002. "The Theta System: An Overview." *Theoretical Linguistics*, 28: 229–290.
- Reuland, Eric. 1996. "Pronouns and Features." In *Proceedings of the North Eastern Linguistic Society 26*, edited by Kiyomi Kusumoto, 319–333.
- Reuland, Eric. 1998. "Structural Conditions on Chains and Binding." In *Proceedings of the North Eastern Linguistic Society 28*, edited by Pius Tamanji and Kiyomi Kusumoto, 341–35.
- Reuland, Eric. 2005. "Icelandic Logophoric Anaphora." In *The Blackwell Companion to Syntax*, edited by Martin Everaert and Henk van Riemsdijk. Accessed January 21, 2013. http://www.blackwellreference.com/subscriber/tocnode.html?id=g9781405114851_chunk_g978140511485136.
- Reuland, Eric, and Tanya Reinhart. 1995. "Pronouns, Anaphors and Case." In *Studies in Comparative Germanic Syntax*, edited by Hubert Haider, Susan Olsen, and Sten Vikner, 241–269. Dordrecht: Kluwer.
- Safir, Kenneth. 1996. "Semantic Atoms of Anaphora." *Natural Language and Linguistic Theory*, 14: 545–589.
- Vikner, Sten. 1984. "Anaphors in Danish as Compared to English Seen from the Point of View of the Government-Binding Theory." MA diss., University of London.