

THE TYPOLOGY OF ANAPHORIC DEPENDENCIES:  
ICELANDIC (AND OTHER) REFLEXIVES\*

0. INTRODUCTION

The properties of English reflexive pronouns have had a profound effect on the development of syntactic theory over the past twenty years or so. Hardly any presentation of a theoretical position, (at least) since Postal's (1964) classic argument for the existence of transformations from the interaction of reflexives with imperative formation, is considered complete unless it provides an analysis of reflexives in English. The principles of the Government/Binding (GB) theory, in particular, rest centrally on the distinction between anaphors and non-anaphors, and thus on the properties of reflexives.

Despite this, however, it would probably seem to many investigators who have worked on other languages that the properties of English reflexives, far from being a sort of central, unmarked case, are actually rather unusual. The existence of non-subject antecedents for reflexives, the behavior of 'picture-noun' phrases, and other properties that have engaged syntacticians working on English form a cluster which has few precise parallels in the languages of the world.

In this paper, we consider the behavior of reflexives in another 'unusual' language, Icelandic, which has aroused interest in the recent literature. A treatment of Icelandic reflexives will be proposed which differentiates the states of affairs obtaining in clauses bearing autonomous (base generated) Tense and those without basic tense. The superficially bizarre properties of Icelandic reflexives will be reduced to the option of whether or not Tense is present in underlying structures, together with an (independently needed) rule of Tense Agreement. This account has consequences for the set of conditions which referential elements may (or must, or must not) meet — the Binding Conditions of the GB framework. The Icelandic evidence suggests that the binding theory should be enriched by the addition of a parametric choice which determines the domain within which certain anaphoric dependencies hold. Consequences of this choice for the system of anaphoric elements in Icelandic are considered. Finally, the relevance of the principles in question to the description of anaphoric elements in other languages will be discussed.

1. PROPERTIES OF ICELANDIC REFLEXIVES

The interesting characteristics of reflexive pronouns in Icelandic were first brought to light by Thráinsson (1976a, 1976b, 1979); further facts and

analysis are provided by Maling (1981 and this volume). Both authors mention the special reflexive form which exists only for third person NP, and which is invariant for gender and number: accusative **sig**, dative **sér**, and genitive **sín** (there is no nominative form of this element, as we will have occasion to remark below). In addition, there is a possessive adjective **sinn** (/sín/sitt, etc.) which shows a full paradigm of cases, genders, and numbers in agreement with the noun it modifies. Our discussion below is limited to the independent reflexive pronouns; the facts concerning the possessive forms are in essence the same, and constitute a natural extension of the account to be offered here.

Let us recapitulate previous discussion: the facts can be divided into those concerning simplex sentences and those concerning complement structures. Within a single clause, a NP can be interpreted as coreferential with the subject NP if and only if it is reflexive (i.e., reflexivization is obligatory if the antecedent is a subject):

- (1)<sup>1</sup> **Jón** rakaði **sig** /\***hann**.  
*John shaved himself/\*him*  
 John shaved himself.

Still within a single clause, a NP can be interpreted as coreferential with a c-commanding non-subject NP whether it is reflexive or not (i.e., reflexivization is optional if the antecedent is an object):<sup>2</sup>

- (2) **Ég** sendi **Haraldi** föt á **sig** /**hann**.  
*I sent Harold DAT clothes for himself/him*  
 I sent Harold clothes for himself.

Finally, and most interestingly, we have a class of cases in which the antecedent of a reflexive need not be in the same clause. This state of affairs can arise when a matrix clause contains a complement whose verb is in the subjunctive mood:

- (3) **Jón** segir að **María** elski **sig** /**hann**.  
*John says that Mary loves SUBJ himself/him*  
 John says that Mary loves him.

As this example shows, a reflexive in such a subjunctive complement may be interpreted as coreferential with the subject of the matrix clause. Furthermore, the reflexive in question can be arbitrarily deeply embedded, so long as all intervening clauses are in the subjunctive:

- (4) a. **Jón** segir að **María** viti að **Haraldur**  
*John says that Mary knows SUBJ that Harold*  
**vilji** að **Billi** meiði **sig**.  
*wants SUBJ that Bill hurts SUBJ himself*  
 John says Mary knows Harold wants Bill to hurt him.

- (4) b. \***Jón** segir að **María** viti að **Haraldur**  
*John says that Mary knows SUBJ that Harold*  
**vill** að **Billi** meiði **sig**.  
*wants INDIC that Bill hurts SUBJ himself*

In (4a), **sig** can be coreferential with the subject of the highest clause (**Jón**), because all of the intervening clauses are in the subjunctive. This is not the only possibility for the reference of **sig** however: it can also be taken as coreferential with any of the intervening subjects (**María**, **Haraldur**, or **Billi**). Compare this with the variant of (4a) in which the object of **meiði** 'hurt' is non-reflexive. In sentence (3), we saw that a non-reflexive in such a subjunctive complement could be coreferential with the matrix subject. This possibility extends to intervening subjects in larger structures; a non-reflexive pronoun may *not*, however, be interpreted as coreferential with the subject of the clause which immediately contains it:

- (5) a. **Jón** segir að **María** viti að **Haraldur**  
*John says that Mary knows SUBJ that Harold*  
**vilji** að **Billi** meiði **hann/hana**.  
*wants SUBJ that Bill hurts SUBJ him/her*  
 John says Mary knows that Harold wants Bill to hurt him/her (John, Harold, Mary, \*Bill).
- b. **Jón** segir að **Billi** meiði **hann**.  
*John says that Bill hurts SUBJ him*  
 John says that Bill is hurting him (\*himself).

A final condition to note is that a reflexive in the complement clause may not be interpreted as coreferential with a non-subject outside of its clause:

- (6) \***Ég** sagði **Jóni** að **María** hefði **boðið sér**.  
*I told John DAT that Mary had SUBJ invited himself*  
 I told John that Mary had invited him.

From these observations, we can see that reflexives with antecedents in higher clauses do not completely fall together with either of the two cases in simple clauses: on the one hand, non-reflexives with (higher) subject antecedents are possible (but not obligatory), while on the other, reflexives with (c-commanding) non-subject antecedents outside of their immediate clause are impossible. We thus seem to have yet a third variety of reflexivization (reflexivization can optionally cross clause boundaries, if the antecedent is a subject and the embedded clause is in the subjunctive).<sup>3</sup>

The conditions just reviewed are difficult to state adequately in any syntactic theory (as demonstrated by Thráinsson and Maling). They seem

particularly problematic for a theory such as that represented by Chomsky (1981) and related work, however. The notion of a rule of grammar which is obligatory under some circumstances and optional under others appears to require a complex Boolean condition, while this theory attempts to limit all rules to the general case of free optional application (though of course the optionality may be limited in particular cases by the interaction of the rule with independent constraints).

Most importantly, however, the facts concerning reflexives in embedded clauses are quite unusual. The behavior of reflexives in simple sentences shows that, in GB terms, they are to be treated as anaphors; but the anaphors that have been studied in other languages typically do not exhibit dependencies with elements outside of their clause unless (a) movement has taken place, or (b) intermediate empty categories are present which form a chain of coindexed elements. There is no reason to believe, however, that either of these situations obtains in the Icelandic examples cited above.

## 2. KAYNE'S ANALYSIS OF NON-CLAUSE-BOUNDED REFLEXIVES

The problems posed by Icelandic reflexives for the GB theory center crucially on the cases in which a reflexive and its antecedent are not in the same clause. There are a number of approaches we might take toward these cases: we might, for example, claim that in some sense a subjunctive complement does not in fact constitute a separate clause from the matrix S in which it is embedded. The facts we have already surveyed, however, give little hope for such a view. As noted above, the facts internal to a subjunctive complement are strictly parallel to those obtaining in simple sentences: exactly a reflexive pronoun can be interpreted as coreferential with a subject antecedent. Furthermore, while non-subjects outside of an embedding cannot serve as antecedents for internal reflexives, a c-commanding non-subject inside the embedding can be the antecedent of a reflexive:

- (7) *María heldur að Haraldur sendi Jóni föt á*  
*Mary thinks that Harold sends SUBJ John clothes for*  
*sig /hann.*  
*himself/him*

Mary thinks Harold is sending **John** clothes for **himself**.

Apparently, then, the facts internal to a subjunctive embedding are entirely parallel to those internal to any other clause; and the special fact which we must somehow capture is the ability of a superordinate subject antecedent to penetrate such a clause.

Kayne (1981) makes a proposal to deal with this problem. He suggests that, in Icelandic, the GOVERNING CATEGORY of a complement to a verb in the subjunctive can be "projected up" through any number of Vs,  $\bar{V}$ s,

Ss, and  $\bar{S}$ s (which Kayne treats as projections of V) insofar as (informally stated) all of the clauses but the topmost are subjunctive. On this view, we could retain the simple statement that anaphors (including reflexives) must be bound in their governing category, since the governing category for an embedded reflexive would be the matrix clause rather than the embedding itself.

There are two problems which show that this approach cannot be fully adequate. First, as Kayne notes, it predicts that reflexives in subjunctive embeddings should appear only in non-subject position. This is because the definition of the governing category of a given element crucially involves the presence of a governor for the element in question; and since the subject position is not in fact governed by the verb of the clause, no projection of this V can serve as the governing category of the subject. Kayne's view thus predicts an asymmetry between subjects and non-subjects with respect to the possibility of reflexives in subjunctive embeddings.

In fact, however (as demonstrated conclusively by Maling (1981)), the asymmetry which does appear has nothing to do with subjects vs. non-subjects, but rather with the simple absence of a morphological nominative form for the reflexive pronoun. While it is true that nominative subjects coreferential with the subject of a matrix clause cannot be represented as reflexives, this is due entirely to the absence of an appropriate pronominal form.

We can see this in two ways. On the one hand, Icelandic contains a large class of predicates whose subjects have a case form other than nominative. Considerable research (as reported in, e.g., Andrews (1976); Maling (1980, 1981); and Thráinsson (1979)) has demonstrated that these NPs have essentially all of the properties of subjects except nominative case. When such a predicate appears in a subjunctive embedding, however, its subject may be a reflexive (under coreference with a matrix subject).

Secondly, possessive reflexives are subject (as noted above) to essentially the same conditions as full reflexive pronouns. They differ, however, in that they occur in an agreeing nominative form as well as in oblique cases. Accordingly, it is possible for them to appear in subject position in subjunctive embeddings. These points are illustrated below:

- (8) a. *þó sagði karl einn, sem menn héldu vera*  
*nevertheless said man a who men thought to be*  
*skyggnan, að sér hefði einu sinni sýnt vofa standa*  
*clairvoyant that self had one time seen wraith stand*  
*við stofuhurðina.*  
*by (guest)room-door*

Nonetheless, a man who was thought to be clairvoyant said he thought he had seen a ghost by the door of the guest room.

- (8) b. **Olafur** segir að bókin **sín** sé ennþá til sölu.  
*Olaf says that book self's is SUBJ still for sale*  
 Olaf says that his book is still for sale.

Confirmation that it is indeed the lack of a nominative form for the reflexive pronoun, and not occurrence in subject position, that accounts for such asymmetries as appear in relation to this construction comes from the small class of verbs which take their *objects* in the nominative case. With such verbs, it is reflexivization from a higher subject into object position that is blocked:

- (9) **Guðrún** telur að mér líki **hún** /\*sig.  
*Gudrun thinks that I DAT like her NOM/\*herself*  
 Gudrun thinks that I like her.

While one might well be tempted to offer such a 'morphological gap' argument only as a last resort, it seems clear that it captures precisely the nature of the generalization at work in Icelandic: exactly where one would expect a morphologically nominative case form of a reflexive pronoun, the construction is blocked. If one construes a grammar as generating structures which are subsequently interpreted by inserting (existing) lexical items into appropriate positions, and then requiring the satisfaction of certain conditions on binding of referential elements, it is precisely in the domain of such internally suppletive paradigms as the class of pronouns that one might expect to find syntactic consequences of a defective paradigm.

A second problem for Kayne's account is the fact that it fails to account for the differences between reflexives in subjunctive embeddings and those in main clauses. If the governing category for an embedded reflexive is projected upward through an arbitrarily long chain of subjunctive clauses, we would expect to find both that (a) object controlled reflexives are possible within such a larger domain; and (b) subject-controlled reflexivization is obligatory (as it is in simplex sentences). As we have seen above, however, non-subject controlled reflexives cannot have an antecedent outside of their clause, and reflexivization into a subjunctive embedding is optional. There is no reason to expect either of these facts if reflexivization into subjunctive embeddings is a simple consequence of the fact that subjunctive verbs project their governing category upwards.

### 3. THE DOMAIN OF ANTECEDENT-REFLEXIVE ANAPHORA

Although Kayne's proposal does not solve all of the problems of Icelandic reflexives, it points the way to an analysis of these facts within GB theory.

That is, what we seek is a set of conditions on how reflexives are related to their antecedents within some syntactic domain, together with a set of principles for defining the domains in question. We begin by approaching the second problem above: the optionality of subject-controlled reflexivization into subjunctive embeddings.

When we consult accounts of these facts in the traditional literature (e.g. Einarsson (1949, p. 124), we see that reflexive rather than non-reflexive forms are the rule when a pronoun in a subjunctive embedding is coreferential with the subject of the matrix clause. Perhaps more interestingly, we find that for at least a subclass of the verbs which take subjunctive complements (namely, those whose complements represent indirect speech) there is a related property which affects nominative subject pronouns within the embedding. According to Einarsson (1949, 157ff.), "[t]he subjunctive is always used in indirect speech when the reporter is not the same person as the subject of the indirect speech clause"; whereas "[w]hen the subject of the indirect speech clause is the same as the reporter, the indirect speech is not put in the subjunctive, but in the infinitive".

The explanation for this complementarity is not far to seek. When the subject of the "indirect speech clause" is the same as the "reporter", it follows that the subject of the embedding is the same as the subject of the matrix clause. In this case, then, we might expect a reflexive form in the embedding. As we have already seen, however, there is no nominative form of the reflexive pronoun. The use of the infinitive in this case avoids this difficulty by substituting a controlled PRO in subject position. The absence of a variant with a simple, non-reflexive subject pronoun suggests that such a substitution is virtually obligatory in Einarsson's dialect, at least for the verbs in question. As a result, the situation here reduces (at least as far as subject-controlled reflexives are concerned) to the same complementarity of distribution between reflexives and non-reflexives as we found above in simplex clauses.

We can confirm that the alternation between subjunctive and infinitive is really a function of obligatory subject-controlled reflexivization, because in fact Einarsson gives some examples elsewhere in his work which are clear exceptions to his generalization. One of these is sentence (8a) above; another is the following:

- (10) **Anna** sagði að sér hefði leiðzt svo mikið, að  
*Anna said that self had SUBJ been sorry so much that*  
 ekkert hefði frétt af honum í langan tíma.  
*nothing had SUBJ been heard of him in long time*

Anna said that she had been so sorry not to have heard from him in a long time.

The distinctive property of such sentences, of course, is that their complements contain verbs with non-nominative subjects (*sýnast* 'think one sees', *leiðast* 'be bored, sorry'). As a result, a reflexive form exists to fill the subject position in the embedding, and the use of a controlled PRO with an infinitive is not necessary.

It appears, then, that in at least a central core of cases we have to do not with optional application of reflexivization (in traditional terms), but rather with the same obligatory complementarity of reflexives and non-reflexives as we find in simple sentences (still confining our attention to the subject-controlled cases). This suggests that we should approach the apparent optionality of the process in the full range of complex sentence cases by stating a principle which applies obligatorily within certain domains; if we then allow (at least some) subjunctive complements to vary as to whether or not they form a part of such a domain, the full range of facts will follow correctly. Since the relevant complex-sentence cases seem to involve subject-controlled reflexives, this suggests that the principle in question is similarly limited:

- (11) Reflexive pronouns must be bound by a subject within the same domain; non-reflexive pronouns (as well as full NPs) must not be bound by a subject in the same domain.

Of course, the important issue to be resolved is the correct way to define the domain in question. Its minimal scope is the simple  $S^4$  in which the pronoun (or NP) occurs; under some conditions it is extended so as to include superordinate structure as well. An adequate characterization of these conditions should provide an account of the circumstances in which reflexivization into subordinate clauses appears to be optional.

Let us assume (arbitrarily, for the moment) that there is some property  $P$  which may or may not be assigned to subjunctive embeddings, such that when  $P$  is present the domain referred to in (11) is the minimal clause, while in the absence of  $P$ , this domain is extended upwards to include the matrix clause as well. We could then say that the unusual property of verbs like *segja* 'say' in the dialect described by Einarsson is that they require the absence of  $P$  in their complements, while other verbs allow it optionally (in subjunctives).

Principle (11) is (not accidentally) similar to the central conditions of the binding theory of Chomsky (1981), according to which an anaphor is bound in its governing category while a pronominal is free in its governing category (and an "R-expression" is simply free). The notion of "governing category" developed in that work, however, does not meet our needs here: it is, in essence, the minimal  $S$  or NP containing the element in question, a governor for it, and an accessible "SUBJECT". In the case of Icelandic

subjunctive complements, this would have the effect that the governing category for non-subject NPs is the subjunctive clause itself (which contains the NP, its governor, and an AGR element which satisfies the definition of a SUBJECT). We would then expect that reflexives (if they are indeed anaphors) would have to be bound within this smaller domain; whereas we have seen abundant evidence that this is not the case.

In seeking a characterization of the domains within which reflexive binding takes place, the most valuable evidence comes from cases in which it is obligatory. In addition to those already considered above, there is one more set of such structures: infinitival clauses with PRO subject ('Equi' structures). Thráinsson (1979) provides abundant evidence that the embedded clause in a sentence like (12) has a fully sentential structure, and that its subject element has the properties of a pronominal:

- (12) *Jón* reyndi að *raka sig* /\**hann*.  
*John* tried COMP *shave himself/ him*  
 John tried to shave himself.

While there is some question in the literature about the exact status of the element *að* in such structures, we can (on the basis of Thráinsson's evidence for the internal structure of such embeddings) identify it with the *að* which appears in other (finite, indicative or subjunctive) embeddings. Apparently then, complements such as (12) differ from those seen earlier only in that (a) they have a controlled PRO as subject, rather than a pronoun or R-expression; and (b) their verbs appear in the (invariant) infinitive, rather than showing tense, mood, and subject agreement as is characteristic of finite clauses.

What is interesting for our purposes about these complements with controlled PRO as subject is their behavior with respect to reflexivization. Of course, we expect the pattern in (12) in any event: since the PRO subject of *raka* 'shave' is controlled by the matrix subject, an object pronoun coreferential with *Jón* could only be reflexive. What is more interesting is the case in which the controller of embedded PRO is the matrix object:

- (13) *Jón* skipaði mér að *raka sig* /\**hann*.  
*John* ordered me COMP *shave self/ him*  
 John ordered me to shave him.

In (13) we see that reflexivization from the matrix subject is obligatory into the embedding, where the antecedent of *sig* (or the improper binder of *hann*) cannot be taken to be the subject of the same clause (PRO, controlled in this instance by *mér* 'me').

It might be suggested that, at least for the purposes of anaphora, these facts show that Thráinsson's conclusion that infinitival complements have fully sentential structure is incorrect. If we maintained that there is only one clause in (13), the obligatory reflexivization of the object of *raka* by the matrix subject would follow. This cannot be the case, however, as shown by the properties of non-subject-controlled reflexivization. It will be recalled that indirect objects can optionally serve as antecedents for reflexives within their clause, but this sort of reflexivization does not cross clause boundaries. In this light, (14) provides conclusive evidence for an embedded clause:

- (14) *Ég lofaði Harald* að *raka hann*/\*sig.  
*I promised Harold COMP shave him / himself*

I promised Harold to shave him.

In sentences of this type, we see that the matrix object may not be the antecedent of a reflexive in the embedding, even optionally. The evident conclusion is that infinitival complements represent a genuinely multi-clause structure, in which the reflexivization possibilities are the same as those in sentences with subjunctive complements, except that subject-controlled reflexivization from the matrix clause is obligatory instead of optional.

Recall that we proposed above to treat the optionality of reflexivization into subjunctive embeddings in terms of the optional assignment of some property *P* to them, such that when *P* is assigned, the domain referred to by principle (11) above is limited to the embedded clause itself; but when it is not assigned, the relevant domain extends upward so as to include the matrix clause (and perhaps even further, in more complex structures). We have just seen, in effect, that the domain of (11) is always extended in this way from infinitival clauses: we might thus hypothesize that they systematically lack the property *P*. On the other hand, indicative embeddings must systematically possess property *P*, since the domain of principle (11) in such cases can never be extended upward from the simple clause:

- (15) *Jón veit að María elskar hann*/\*sig.  
*John knows that Mary loves INDIC him / himself*

John knows that Mary loves him.

Evidently, then, *P* is some property always displayed by indicative clauses, never displayed by infinitives, and optionally present in subjunctives.

#### 4. THE ROLE OF TENSE

In attempting to identify the property *P*, we focus on the differences

between indicative and infinitive clauses. The two are distinguished by the fact that the former contain marking for agreement, and for tense and mood, while infinitives are marked for none of these properties. Agreement is an unlikely candidate for property *P*, since subjunctive embeddings uniformly display agreement material which is completely independent of any other sentence element, and which must be base generated. This agreement presumably governs the subjects of these clauses. The simple presence of mood marking, similarly, seems unlikely to serve as property *P*, since (a) infinitive clauses are not marked either indicative or subjunctive, and (b) taking Subjunctive (or rather its lack) to be *P* would give us no account of the optionality we have seen.

The only remaining overtly marked property is marking for tense, but on the face of it this seems no more promising than agreement marking. Verbs in the subjunctive are uniformly marked as either present or preterite subjunctive, and thus appear to show the same tense options as do indicative clauses.

When we look more closely, however, we find that tense marking in subordinate subjunctives is subject to rather strict limitations. In fact, under the heading of sequence-of-tense phenomena, traditional descriptions generally observe that the present subjunctive in embeddings is found exactly when the inflected verb of the matrix clause is also marked present; and the preterite subjunctive is found when the matrix inflected verb is also preterite:

- (16) a. *Hún fer heim á morgun.*  
*she goes home tomorrow*  
 She goes home tomorrow.
- b. *Hann segir, að hún fari heim á morgun.*  
*he says that she goes PRES SUBJ home tomorrow*  
 He says that she goes home tomorrow.
- c. *Hann sagði, að hún færi heim á morgun.*  
*he said that she went PRET SUBJ home tomorrow*  
 He said that she goes home tomorrow.
- d. *Hún kom heim í gær.*  
*she came home yesterday*  
 She came home yesterday.
- e. *Hann segir, að hún hafi komið heim í gær.*  
*he says that she has PRES SUBJ come home yesterday*  
 He says she came home yesterday.

- (16) f. Hann sagði, að hún hefði komið heim ígær  
*he said that she had PRETSUBJ come home yesterday*  
 He said she came home yesterday.

From such examples, it appears that the assignment of tense to the verbs of subjunctive complements is (at least in a central core of cases) a matter of rule, rather than of free choice. Since exactly the same complement, embedded under matrix clauses differing only in tense, shows different forms, it would seem that tense in such complements does not contribute to interpretation.

Let us assume, therefore, that Icelandic contains a rule of Tense Agreement, which has the effect of copying the tense marked on a verb onto a (subjunctive) verb in a complement clause which it governs. Given such a rule, the rules of the base would not need to generate Tense in subjunctive complements whenever possible, since the tense required for morphologically well formed representations would be supplied by the rule of Tense Agreement. This possibility of not generating Tense, of course, need not be separately stipulated, but can be taken simply as an instance of the more general optionality of rule application in core grammar.

Tense thus seems a plausible candidate for the property *P* for which we have been looking, since infinitival embeddings lack it, indicative embeddings uniformly display it, and subjunctive embeddings display it optionally (prior to the operation of the rule of Tense Agreement). We might then define the domain which is relevant for principle (11) as:

- (17) 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.

This notion of anaphoric domain is obviously quite close to the notion of governing category defined in other work within the GB framework.

Anticipating later observations, we next define a notion of SUPERORDINATE SUBJECT:

- (18) A is a subject superordinate to B if either (a) A is the subject of the S or NP in which B appears; or (b) A is the subject of a verb which governs an S or NP in which B appears.

Finally, we reformulate principle (11) on the basis of these definitions:

- (19) Reflexive pronouns must be bound by a superordinate subject within their anaphoric domain; non-reflexive pronouns (as well as full NPs) must not be bound by a superordinate subject within their anaphoric domain.

We now have an account of the optionality of reflexivization into subjunctive embeddings. Consider the version of sentence (3) above with a

reflexive pronoun, for example. If we assume this structure is generated without tense in the embedded subjunctive, the anaphoric domain of the object of *elski* will be the matrix clause (the minimal S or NP containing this object, its governor, and the subject of a tensed clause). Within this domain, there are two subjects superordinate to the NP in question (*Jón* and *María*). Either of these could thus serve as the antecedent of a reflexive, and so the binding of *sig* by *Jón* satisfies (19). In the version of (3) with a non-reflexive, on the other hand, we simply assume that tense is base-generated in the embedding, rather than being supplied by Tense Agreement.<sup>5</sup> Since the embedding bears tense, its subject defines the anaphoric domain for the object, and thus a reflexive would have to be bound within the embedding itself. Nothing prevents the object from being a non-reflexive pronoun coindexed with a NP outside of its anaphoric domain (in this case, coindexed with *Jón*), and thus that structure as well satisfies (19).

We can also accommodate the facts of the dialect described by Einarsson, in which certain verbs appear to require reflexive pronouns in their complements, and to disallow non-reflexives bound by the matrix subject. In this dialect, we need only say that the verbs in question have the lexical property of requiring their complements not only to be subjunctive but also (underlyingly) tenseless. As a result, the anaphoric domain of NPs in such an embedding will always include the matrix clause, just as in the case of infinitival complements (which are always tenseless in all dialects).

There is some additional evidence confirming our claim that the extension of an element's Anaphoric Domain beyond its Governing Category depends on the presence of Tense. First, there is a limited class of cases in which Tense apparently must be generated independently in subjunctive embeddings. Several Icelandic auxiliaries have special idiosyncratic modal senses associated with their (formally) preterite subjunctive forms. For example, the verb *eiga* 'own; have to' has a preterite subjunctive *ætti*, which in addition to serving in the expected relation to other forms of *eiga*, also has the sense 'ought to'. Similarly, *þurfa* 'need, have to' in the preterite subjunctive also has the sense 'should'. The correct representation of these facts is not entirely clear: it is quite possible, for instance, that although these items are formally preterite subjunctives of other verbs, they ought to be represented as separate lexical items whose tense is ambiguous (compare the situation with English *will/would*, *shall/should* for example). However, when they appear in the complements of verbs (not belonging to the class of those which require their subjunctive complements to be tenseless), it appears that they have the property of inhibiting the appearance of reflexives:

- (20) a. *Jón* heldur að þú ættir að kyssa hann/??sig.  
*John thinks that you ought SUBJ COMP kiss him / himself*  
 John thinks that you ought to kiss him.

- (20) b. **Jón** heldur að ég þyrfti að heimsækja  
*John think that I should SUBJ COMP visit*  
**hann/??sig.**  
*him / himself*

John thinks I should visit him.

Since the embeddings here are subjunctive (containing, in turn, infinitival complements of their own), reflexivization ought to be able to penetrate them. If the surface tense is interpreted as one that could not have been assigned by Tense Agreement, however, it must have been base generated, in which case the anaphoric domains of the most deeply embedded objects will not contain the subject of the topmost clause (**Jón**). Principle (19) thus account for the comparative ill-formedness of attempting to bind a reflexive in this position from the topmost subject.

Secondly, we can note that facts very similar to those surveyed above for Icelandic occur in the closely related language Faroese. In particular, reflexives in embedded clauses may be interpreted as coreferential with the subject of the matrix clause:

- (21) a. Gunnvør visti, at tey hildu lítið um seg.  
*Gunnvør knew that they thought little of REFL*  
 Gunnvør knew that they had a poor opinion of her.
- b. Ein dagin, sum hann stóð og rakaði kongi, segði kongur  
*one day as he stood and shaved king said king*  
 við hann, at um hann blóðgaði seg, skuldi hann  
*to him that if he caused bleed REFL should he*  
 missa lív.  
*lose life*  
 One days, when he was standing shaving the king, the king said to him that if he made him (the king) bleed, he (the barber) would lose his life.

What is interesting is that Faroese has lost all trace of a morphological subjunctive, so it cannot possibly be this category which directly determines the possibility of such non-clause-bounded reflexives. Further fieldwork is necessary to establish this conclusion; but it appears from the examples available (Lockwood 1964; Hammershaimb 1891) that the possibility arises precisely in cases like those above where the tense in the embedding is not free, but rather governed by sequence of tense rules. Faroese, in other words, has a rule of Tense Agreement (like Icelandic), which permits certain clauses to be generated without basic tense; but the complements to which this rule applies are indicative rather than subjunctive (since Faroese lacks this category). The anaphoric domain of such

(underlyingly) tenseless embeddings includes the matrix clause, as in Icelandic.

We have claimed above that the optionality of reflexivizing into a subjunctive embedding in Icelandic is not in fact due to the optional application of a reflexivization rule, but rather to an optional choice of base structures. If this is true, we might expect to find some other difference between the two possibilities. In fact, as Thráinsson (1976) reports, there is a difference in interpretation between the two versions of, e.g., sentence (3). Considerably more work remains to be done on the nature of the distinction involved, although Thráinsson's observations seem to suggest a line consistent with our analysis here. Versions of such sentences with reflexives in the embedding appear to differ from versions with (identically indexed) non-reflexives in that the complements containing reflexives seem to be more directly integrated into a unitary network of semantic and pragmatic conditions, while the complements with non-reflexives are more semantically insulated from the matrix clause. This could be taken to correspond to the claim that Tense is a canonical characteristic of an independent predication; and that where we have only one instance of tense, we have a more unitary predication than where we have a distinct tense in the embedded structure.

The sort of insulation in question can also be related to the logician's notion of an opaque context. This comes out clearly when we add additional logical operators:

- (22) a. Aðeins **Jón** telur að María elski **hann.**  
*only John thinks that Mary loves SUBJ him*  
 Only John believes that Mary loves John.
- b. Aðeins **Jón** telur að María elski **sig.**  
*only John thinks that Mary loves SUBJ himself*  
 Only John believes himself to be loved by Mary.

The glosses in (22) (provided by Thráinsson) show that the sentences with reflexive and non-reflexive pronouns have different logical forms: the former corresponds essentially to the case of two variables bound by the same identifier, and the latter to two independent variables which happen to be assigned the same value. This is exactly parallel to the difference in English between sentences such as *Only John wants John to solve this problem* and *Only John wants to solve this problem*.

The reflexive version of (22) is thus similar in logical structure to cases of controlled PRO, while the non-reflexive version is similar to independently assigned identical reference. We might therefore be tempted to attribute the reflexivization rule in question to the theory of control, rather than to the theory of binding; but there is little else to support that

conclusion. In particular, the choice of antecedents for reflexives in Icelandic is always limited to subjects (in the cases involving complex anaphoric domains), and shows no sensitivity to the lexical properties of individual verbs, to a minimal distance principle, or to other aspects of the theory of control. What is involved, then, seems to be simply a particular choice of parameters in the principles of the binding theory for Icelandic.

### 5. NON-SUBJECT-CONTROLLED REFLEXIVES

Most of our attention thus far has been occupied by cases in which a reflexive and its antecedent are in different clauses, since it appears to be in the principles underlying this possibility that Icelandic holds its greatest interest. Let us now return to the case of reflexives whose antecedents are to be found within the same clause.

The binding theory in (19) is quite adequate to describe the facts of sentences like (1) above. The version of (1) with a reflexive is allowed by (19), since the reflexive is bound by a superordinate subject; while the non-reflexive version is prohibited by the (disjoint reference) requirement that non-reflexives not be bound by a superordinate subject. When we turn to (2) (in which the proposed antecedent is not a subject), we see that the non-reflexive version, again, is allowed by (19) — since even though **hann** in this sentence is bound (by the indirect object **Haraldi**), it is not bound by a superordinate subject. We do not, however, have an account thus far of the reflexive version of this sentence.

As we have already seen, instances of non-subject-controlled reflexivization should not be directly assimilated to the subject-controlled cases. Two properties distinguish them: (a) optionality vs. obligatoriness, and (b) the possibility of having antecedent and reflexive in different clauses. We observed above, that is, that object-controlled reflexivization does not go down into either infinitives or (what we now analyze as) tenseless subjunctive complements, even optionally. We thus appear to need a distinct principle to account for the possibility of a reflexive in (2).

Given that the two sorts of reflexivization have significantly different properties, it seems reasonable to distinguish two sorts of reflexive. Let us reserve the name REFLEXIVE PRONOUN as a technical term for elements subject to the first part of condition (19). Recalling the distinct notion of ANAPHOR utilized in Chomsky (1981) and related work, we note that the basic property of anaphors is that they are subject to the following principle:

(23) An anaphor is bound in its governing category.

All of the instances of object-controlled reflexives in Icelandic satisfy this condition, since the object which serves as their antecedent is in each case within the same clause. We might then represent the properties of

Icelandic **sig** (/sér/sín, as well as the possessive element **sinn** etc.) by saying it is ambiguous between two senses: one as an anaphor (and thus subject to principle (23)), and one as a reflexive pronoun (sensu stricto) subject to (19). This allows for all of the instances of **sig** which we have seen: either (a) it has a superordinate subject as antecedent, within its anaphoric domain, and thus satisfies (19); (b) it has a c-commanding object within its clause as antecedent, and thus satisfies (23); or (c) it has the subject of its clause as antecedent, and thus satisfies both (19) and (23) simultaneously. Furthermore, we can see easily that there are no positions in which **sig** is found which satisfy neither of these conditions.

It might appear that distinguishing two sorts of reflexives is an ad hoc move which serves simply to patch up the fact that neither (23) nor (19) provides an adequate description of the distribution of Icelandic **sig**. There is some reason to believe that we must make this distinction internal to Icelandic, however. When we turn to reciprocal expressions, we find that they display exactly the properties of anaphors (as defined by (23) above), and not those of reflexive pronouns.

Icelandic reciprocals are made up of two parts: a form of **hver** 'each', agreeing in gender and case with the antecedent; and a form of **annar** 'other', agreeing in gender with the antecedent but showing the case appropriate to the position in which the expression appears. There are a number of additional morphological properties of the construction (some differing from speaker to speaker), but its syntactic distribution (as described by Thráinsson (1979)) is fairly clear. As the examples in (24) below show, the antecedent of **hver annar** may be either the subject or a (c-commanding) object within its clause, but may not be outside of its clause. Neither infinitives nor subjunctive complements (nor, of course, indicative complements) can have an antecedent for a reciprocal expression outside of the immediate clause:

- (24) a. þeir rökuðu hver annan.  
           they shaved each other  
           They shaved each other.
- b. Ég sendi þeim gallabuxur á hvorn annan.  
           I sent them bluejeans for each other.  
           I sent them bluejeans for each other.
- c. þeir lofuðu mér að raka hver annan.  
           they promised me COMP shave each other  
           They promised me to shave each other.
- d. \*þeir skipuðu mér að raka hver annan.  
           they ordered me COMP shave each other  
           They ordered me to shave each other.

- (24) e. \***Mennirnir** telja að ég hafi **hvor annan**.  
*the men believe that I hate SUBJ each other*

The men believe that I hate each other.

- f. \***þeir** vita að ég hef sent **hver öðrum** bréf.  
*they know that I have INDIC sent each other letters*

They know that I have sent each other letters.

Icelandic reciprocals, then, are like (one sense of) **sig** in that their distribution is governed by principle (23), but unlike **sig** in that they do not also have a sense governed by principle (19).<sup>6</sup> We can also note that non-third person pronouns can occur in all of the positions occupied by either **sig** or the non-reflexive pronouns **hann**, **hún**, **það** ('he', 'she', 'it') etc. We might thus say that these items are three ways ambiguous: they may be either reflexive pronouns, anaphors, or simple pronouns.

The binding theory for Icelandic, then, consists of four principles:

- (25) a. Reflexive pronouns are bound by a superordinate subject within their anaphoric domain.  
 b. Anaphors are bound in their governing category.  
 c. (Other) pronouns are SUBJECT-FREE (i.e., not bound by a superordinate subject) within their anaphoric domain.  
 d. R-expressions are free.

In terms of this set of principles, the 'optionality' of object-controlled reflexivization is immediately accounted for. The disjoint reference principle applicable to ordinary pronouns, (25c), requires only that they not be bound by a subject. As a result, an oblique position bound by a non-subject within its governing category represents the one possibility of overlap between elements satisfying (25b) (such as **sig**), and elements satisfying (25c) (such as **hann**).

In exactly this position, then, anaphors and ordinary pronouns are not in complementary distribution. It seems reasonable to suggest that this state of affairs arises as a result of the fact that Icelandic uses both (25a) and (25b) for elements not having independent reference: in consequence, the disjoint reference principle governing ordinary pronouns might be either the complement of (25b) (as it is in English), or the complement of (25a) (as it is in Icelandic).

## 6. SOME COMPARISONS AND CONCLUSIONS

The binding theory for Icelandic proposed in (25) above differs to some extent from that which has been proposed for English. English, that is, appears to have a class of anaphors (the *-self* pronouns, as well as the

reciprocal *each other*) subject to condition (25b) and a class of pronominals (ordinary pronouns) subject to the inverse of this condition:

- (26) Pronominals are free in their governing category.

Just as Icelandic has some elements (**sig**, **sinn** etc.) which are ambiguous between two categories (in this case, between those of true reflexives and of anaphors) or even three (as the non-third person forms are ambiguous among reflexive, anaphoric and simple pronominal uses), English also displays such a situation: it seems plausible to suggest that English possessive forms (*his*, *her*, etc.) are ambiguous between the categories of anaphors and simple pronominals.

We proposed above that the existence of condition (25c) for pronominals in Icelandic was a consequence of the fact that the language uses (25a) for reflexives. This suggests that the range of parametric variation allowed in the binding theories of particular languages admits of either (25a) or (25b) (or both) as a condition on elements without independent reference, but requires that the disjoint reference condition applying to pronominals be the inverse of another condition in the grammar. We might propose, then, that a language (like English) which does not have the subject-sensitive condition (25a) on reflexives could not have a subject-sensitive disjoint reference condition (25c) on ordinary pronominals. On the other hand, a language like Icelandic, which uses both (25a) and (25b), has a choice of either (25c) or the (English) condition (26).

This choice seems to be a legitimate parameter of variation in languages. When we consider the facts of Georgian, for example (see Harris (1981) for important discussion), we find that in this language reflexive substitutes for NP ("tav reflexives") can take precisely the subject of their own clause as their antecedent:

- (27) a. mxaṭvari daxaṭavs vanos tavistvis.  
*painter he paints him Vano DAT self for*

The painter<sub>i</sub> will paint Vano<sub>j</sub> for himself<sub>i,\*,j</sub>.

- b. vano pikrobs, rom nino sačmels amzadebs tavistvis.  
*thinks that Nino food DAT prepares self for*

Vano<sub>i</sub> thinks that Nino<sub>j</sub> is preparing food for herself<sub>i,\*,j</sub>.

We might interpret this as indicating that they are simultaneously reflexives (thus subject to (25a)) and anaphors (thus subject to (25b)). A more conservative interpretation might be that they are simply reflexives, but that in Georgian the definition of an anaphoric domain is narrower than in Icelandic, and is never larger than an element's governing category. In any event, the subject-sensitive condition (25a) clearly obtains in Georgian.

We can also see that the 'anaphoric' condition forms part of the binding theory for Georgian, however. That is, possessive reflexive elements ("tavis-reflexivization", in Harris' terminology) can be bound by a non-subject within their governing category<sup>7</sup> (cf. 28):

- (28) nino adzlevs bavšvs tavis dedas.  
gives child DAT self's mother DAT

Nino<sub>i</sub> is giving the child, to her<sub>i,j</sub> mother.

Non-possessive reflexives may not, however, be bound by non-subject (cf. (27b) above). The possessive forms are thus subject to (25b), while the non-possessive forms are subject to (25a). As a result, the binding theory for Georgian contains both (though they apply to different items), and we predict that the disjoint reference principle for ordinary pronominals could be either (25c) or (26).

If the relevant principle were (26), as in English, the result would be that in a Georgian sentence meaning 'The artist painted Vano for him(self)', in which direct and indirect objects are coreferential, neither a reflexive (by virtue of (25a)) nor a non-reflexive (by virtue of (26)) could fill the indirect object position, and the language would have to resort to a paraphrase of some sort. While further research remains to be done on this topic, preliminary investigation suggests that this is indeed the case.

When one discovers that two languages differ in some respect, it is easy enough to characterize this difference (whatever it may be) as a parameter of variation in grammars. In order for this claim to be significant, however, it should be the case that the proposed parameter gives a basis for a useful and economical characterization of significant typological differences between languages. We have already seen that if we treat the choice of (25a) and (25b) (or both at once) in the binding theory for a language as a parameter, this allows us to distinguish English, Icelandic, and Georgian in a useful way. It appears that the choice of binding principles for elements without independent reference constrains the disjoint reference principles applicable to other pronominals in a language. Still, in order to establish the proposed view of Icelandic as a plausible one, it would be useful to show that this system is not entirely isolated.

In fact, while Icelandic reflexive anaphora has generally been treated as a unique case in the generative literature, there are other systems which seem to be similar in essential ways. Consider the system of reflexives and reflexive possessives in Classical Latin, for example. We are generally told that a (third person) reflexive (**sui**, **se**, **sibi**; possessive **suus** etc.) refers to the subject of the clause in which it appears. In addition, however, the grammars describe a class of so-called 'indirect reflexives': instances of reflexives in a subordinate clause, but referring to the subject of the matrix clause.

- (29) a. Miles se interfecit.  
soldier self murdered  
The soldier killed himself.
- b. Caesar imperavit hostibus ut se dederent.  
ordered army that self they surrender  
Caesar ordered the enemy to surrender (themselves).
- c. iussi Helvetios in suos fines reverti.  
I ordered Helvetii into self's frontiers they return  
I ordered the Helvetii to return into their territory.
- d. orat te pater ut ad se venias.  
asks you father that to self you come  
Your father asks you to come to him.
- e. orat te mater ut filio ignoscas suo  
asks you mother that son you pardon self's  
The mother asks you to pardon her son.

Milner (1978) cites the following interesting example:

- (30) Ariovistus<sub>i</sub> ad Caesarem<sub>j</sub> legatos mittit, uti ex  
to ambassadors sent that from  
suis<sub>j</sub> legatis aliquem ad se<sub>i</sub> mitteret.  
his ambassadors some to him might send  
Ariovistus sent ambassadors to Caesar, in order that he (C.)  
would send his own (C.'s) ambassadors to him (A.).

In this example, we find two reflexives in the same (lower) clause: one (**se**) controlled by the subject of the matrix clause, and the other (**suis**) controlled by the subject of the lower clause.

Indirect reflexives appear in infinitival and subjunctive subordinate clauses embedded under the (numerous) verbs which govern the rather strict principles of indirect discourse, and are possible exactly when "the subordinate clause expresses the words or thought of the subject of the principal clause" (D'Ooge 1921, p. 224). Evidently, non-subjects did not control reflexives either within their clause or into such a subordinate clause. We can thus surmise that (a) Latin third person reflexives were subject to (25a), not (25b); and (b) anaphoric domains in Latin included not only the clause in which an NP appeared, but also a matrix clause, in the case that the embedding itself was infinitival or an indirect-discourse subjunctive. The special sequence-of-tense rules obtaining in these cases

suggest that relevant definition may have been quite close to that which is operative in Icelandic.

Finally, we can consider the system of reflexives in Classical (Attic) Greek. According to Smyth (1963), Greek had a special set of reflexives in all three persons and numbers. Within a single clause, these generally appear with the subject of the same clause as antecedent; but Smyth also gives examples showing that objects could be antecedents. We can thus conclude that this class of words in Greek were anaphors, subject to (25b). We also find, however, that Greek (like Latin and Icelandic) displays indirect reflexives: reflexives in a subordinate clause with the subject of the matrix clause as antecedent (subject to conditions similar to those of Latin):

- (31) Oreste:s epeisen Athe:naious heauton katagein.  
           *persuaded*                    *self*        *to-restore*  
 Orestes persuaded the Athenians to restore him(self).

It also appears, however, that only third-person reflexives ever appear as indirect reflexives. We conclude that Greek third person reflexives were ambiguous between a reflexive and an anaphoric use, as in Icelandic; but that first and second person forms were only anaphoric (though still distinct from ordinary independent pronominals). The Greek situation is thus closely analogous, though not identical, to the Icelandic set of pronouns.

While the state of affairs illustrated here for Icelandic thus has an unusual appearance in the context of previous discussion of anaphors in GB, we see that it is actually not at all unique. On the basis of the proposed distinction between two versions of the binding principle for elements without independent reference, we have suggested a parametric account of the range of binding theories available for natural languages. The relevant parameter distinguishes two classes of such elements, in terms of the domain over which they exhibit an anaphoric dependency and the sensitivity of that dependency to the difference between subjects and non-subjects. On this basis, we can give an orderly and substantive account of a variety of languages and their typological differences. We can also situate the facts of English reflexives, which have been the basis of so much theoretical discussion, in their proper place with respect to the theory of binding.

#### NOTES

\* This paper represents a talk which was originally given at the 1982 GLOW colloquium in Paris, and of which a previous version was published in the *Journal of Linguistic Research*. Permission of the Indiana University Linguistics Club for the publication of the present version is gratefully acknowledged. I would like to recognize explicitly Höskuldur

Thráinsson's original discovery of the fascinating properties of Icelandic reflexives, together with his and Joan Maling's considerable further development of their analysis. Most of the examples in this paper are taken from their previous works. Both of them, as well as Avery Andrews and Annie Zaenen, have also been very generous in sharing their knowledge of Icelandic with me. Tim Stowell also made several helpful suggestions when some of this material was presented at a proseminar at UCLA in the Fall quarter, 1981. In addition, I am indebted to Guðrún Ingólfssdóttir for help with Icelandic, and to Alice Harris for help with Georgian. None of these people should be held responsible for my opinions or assertions.

Since the appearance of the original version of this paper, important problems have been noted for the analysis it presents by Joan Maling and Eiríkur Rögnvaldsson, among others. The conclusions of the paper must thus be regarded as subject to further refinement, if not to wholesale revision. Nonetheless, it seems worthwhile to make the analysis available to a wider audience of syntacticians working on Scandinavian languages for the sake of discussion.

<sup>1</sup> We follow here the convention of indicating intended coreference by boldface script.

<sup>2</sup> As in English, this is an oversimplification, due to the existence of restrictions on the range of prepositional phrases into which such reflexivization is possible (cf. Chomsky (1981, 290ff.)). We will ignore these considerations here, as have previous researchers. We also note Maling's (1983) observation that non-subject-controlled reflexives are impossible for some speakers. In the terms to be developed below, this is to be interpreted as the absence in this dialect of an anaphor reading (controlled by (25b) below) in addition to the reflexive pronoun reading for these elements.

<sup>3</sup> There is considerably more to be said about the possibility of reflexives in subordinate subjunctive clauses with antecedents in higher clauses. In particular, they may also appear in certain adverbial clauses, and even in relative clauses under appropriate conditions (providing always that the clause in question be in the subjunctive). Though we will not explicitly address these cases here for lack of space, the conditions developed below will be stated so as to accommodate them implicitly insofar as possible.

<sup>4</sup> Though we have not demonstrated this fact here, reflexivization of the same sort can also apply within NP, controlled by a referential expression appearing in the position of a genitive modifier (see Maling (1981) for some examples). A complete account should thus extend the principles in question to these cases, in a natural way familiar from other instances of S/NP parallelism.

<sup>5</sup> To accommodate cases in which base-generated tense in an embedding does not agree with the tense of the matrix clause, we might assume that an output constraint of some nature mirrors the effect of Tense Agreement, requiring tense in subjunctive embeddings to agree with the tense of the matrix clause. Alternatively (and preferably), as suggested to me by R. Carter, we might simply allow Tense Agreement to operate freely (inserting a tense feature equal to that of the matrix into the embedding); and then block by morphological means any structure in which contradictory markings have been assigned to a single verb (one base generated, and one by Tense-Agreement). The correct analysis of such cases depends on the extent to which two base-generated tenses may be independent, as suggested by Eiríkur Rögnvaldsson (this volume).

<sup>6</sup> It has been suggested by an anonymous reader of this paper that the absence of non-clause-bounded examples of reciprocals results from the fact that these expressions contain a quantifier (*hver* 'each'): if we assume that the rule of QR (Quantifier Raising) relating s-structure to LF is clause bounded in Icelandic, then we could argue that the properties of reciprocals are simply the intersection of those of reflexives and of quantifiers. This suggestion has some appeal, but before it can be accepted it would have to be shown that QR is indeed limited in the appropriate way in Icelandic. If this were the case it would, for example, have the consequence that Icelandic sentences meaning 'Some

boy wanted to kiss each of the girls' should not have a reading in which 'each' has wide scope with respect to 'some'. In this connection, consider sentence (i) below:

- (i) Einhver strákur vill kyssa hverja stelpu.  
*some boy wants to kiss each girl*  
 Some boy wants to kiss each girl.

This sentence has both of the following readings:

- (ii) a.  $(\exists x)(\text{boy}(x) \ \& \ (\forall y)(\text{girl}(y) \Rightarrow \text{wants}(x, \text{kiss}(x, y))))$   
 b.  $(\forall y)(\text{girl}(y) \Rightarrow (\exists x)(\text{boy}(x) \ \& \ \text{wants}(x, \text{kiss}(x, y))))$

Reading (iib) appears to involve an operation of the Quantifier Raising rule which extracts a quantifier (*all*) from its clause, giving it scope over another quantifier from the matrix clause, which suggests that the limitations on *hver annar* cannot follow in general from properties of quantifiers in Icelandic.

<sup>7</sup> Apparently *tavis* (possessive) reflexives within relative clauses can sometimes take as their antecedent the subject of the main clause: e.g.

- (i) Vano icnobs im kaçs, romlis mxařvrobac tavis sařumro otaxši hķidia.  
*knows that man whose art self's living room-in hangs*  
 Vano knows the man whose art hangs in his (i.e., Vano's) living room.

The conditions under which this structure (with a reflexive whose antecedent is not in its clause) is possible require further study. I am obliged to Alice Harris for this example.

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## SOME COMMENTS ON REFLEXIVIZATION IN ICELANDIC\*

### 0. INTRODUCTION

In this paper I will make some comments on Anderson's and Maling's papers in this volume on reflexivization in Icelandic. I will show how that Anderson's theory makes some predictions which are not borne out by the facts, while Maling's notion of predication often makes it difficult to see what the predictions of her theory actually are. Occasionally, I will hint at other explanations, but these comments do not present any coherent theory of Icelandic reflexivization.

Informants' judgments on reflexivization differ very widely — much more widely than I thought previous to writing these comments. From reading Maling's paper, one could think that there are essentially two dialects; speakers of one accept object-controlled reflexivization, whereas speakers of the other don't. Anderson, on the other hand, does not mention any dialectal differences, and claims (as does Thráinsson (1976 and 1979)) that object-controlled reflexivization is optional. But the situation is in fact much more complex than any of these papers would indicate, since judgments differ so much: not only do speakers differ, but the same speaker's judgments can differ from one day to another. I am thus quite sure that many speakers of Icelandic would not agree on all the grammaticality judgments presented here, so I have tried to use more than one type of examples in arguing for or against any particular claim, and I hope that although some speakers of Icelandic may disagree with me in some cases, enough evidence will be left to support my conclusion.

### 1. NON-CLAUSE-BOUNDED REFLEXIVIZATION

Let us first turn to the main topic of Anderson's paper (this volume): NON-CLAUSE-BOUNDED REFLEXIVIZATION (NCBR). Thráinsson (1976) was the first to draw attention to this phenomenon in Icelandic, and he pointed out that although NCBR correlates with a certain use of the subjunctive, "subjunctive as such doesn't 'govern' Reflexive — or to put it differently: it is not a sufficient condition for the application of the NCBR that we have a subjunctive form of the verb in the lower clause" (Thráinsson 1976, p. 230). Thráinsson's conclusion is that "It doesn't seem possible to find a