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Verb Raising in Icelandic Infinitives<sup>1</sup>

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Verb Raising (henceforth VR) in Icelandic bears on several central issues within the theory of grammar; in particular, the ECP, the PRO theorem and theta theory. I will argue that a proper treatment of VR in Icelandic requires (i) that some PROs be properly governed, (ii) a conjunctive definition of the ECP and (iii) a reconsideration of the claim in Pollock (1989) that "weak" I(NFL) prohibits a raised verb from theta marking its arguments. The data discussed below also argue in support of the organization of the grammar originally proposed in Chomsky and Lasnik (1976). In specific, the properties of case chains in Icelandic support a T-structure for the grammar in which PF branches with respect to LF.

1. The Data

Icelandic displays three kinds of embedded clauses. Finite clauses have an ad complementizer and, on the standard analysis, have obligatory raising of V to I. As a result, both the negation ekki and VP adverbs such as alltaf ('always') obligatorily follow the finite verb as illustrated in (1).

(1) a. ég taldi a María læsi ekki/alltaf bókina  
 I believed C María read not/always books

b. \*ég taldi a María ekki/alltaf læsi bókina

The structure of (1)a after the verb has raised to I is (2).

(2) ég taldi [<sub>S/CP</sub> ad [<sub>S/IP</sub> María [<sub>I</sub> læsi]<sub>I</sub>] [<sub>VP</sub> ekki/alltaf t<sub>i</sub> bókina]]

VR in Icelandic finite clauses follows the pattern displayed in French and the other Romance languages (see

Emonds 1978 and Pollock 1989). VR is required in finite clauses, it is argued, to enable the V to receive its tense and agreement features. The relative order of the finite verb with respect to negation and VP adverbs follows from this obligatory movement.

In contrast to the finite clauses in (1), Icelandic also has two types of non-finite clauses. One kind is akin to the English ECM construction (henceforth ACI constructions). These forms have no overt complementizer and the embedding verb both governs the embedded subject position -it can assign case to a lexical NP in this position- and properly governs the position -it allows movement from this position. Such non-finite clauses do not tolerate verb raising. This is illustrated in (3).

- (3)a. *Ég taldi Maríu (ekki/alltaf) lesa bókina*  
 I believe M(acc) not/always read-infin  
 books
- b. \**Ég taldi Maríu lesa (ekki/alltaf) bókina*
- c. *María<sub>i</sub> virtist t<sub>i</sub> (ekki/alltaf) lesa*  
 M (nom) seemed t<sub>i</sub> not/always read-infin  
 (\*ekki/lesa) bókina  
 books
- d. *Drengirnir eru taldir hafa verið kysstir*  
 The boys(nom)<sub>i</sub> are believed(nom) t<sub>i</sub> have  
 been kissed(nom)
- e. \*....[<sub>S/TP</sub> Maríu [<sub>i</sub>lesa<sub>i</sub>] [<sub>VP</sub> ekki/alltaf t<sub>i</sub>  
 bókina]]

The contrast between (3)a and (3)b indicates that VR is prohibited from applying in these ECM structures. The accusative case on *Maríu* indicates that case is being assigned from the matrix verb *taldi*. If NP raising applies as in (3)c or (3)d the case shifts to nominative. The full acceptability of these raised constructions also indicates that the matrix verb can properly govern the embedded NP-t left by 'Move NP'. It is worth observing that in these infinitival embedded clauses VR is absolutely prohibited *i.e.* (3)e is an ungrammatical structure in Icelandic. This contrasts with French where the infinitives *être* and *avoir* can optionally raise (see Pollock 1989).

In addition to the ACI infinitives, there is another class of non-finite sentences in Icelandic. These have an *ad* complementizer similar to the one found in finite clauses. They have PRO subjects and the verb is in the infinitive form. These PRO infinitives show all the marks of verb raising. Indeed, in these

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constructions, VR is obligatory and, in contrast with French, all infinitives must raise.

(4) María lofaði að (\*ekki/alltaf) lesa  
(ekki/alltaf) bókina

María promised C (\*not/always) read-infin  
(not/always)books

If we follow Sigurdsson (1989) and we assume that in PRO infinitives the verb obligatorily raises to yield a structure such as (5) we can account for the contrast noted in (4).

(5) María lofaði [<sub>S'</sub>/CP]að [<sub>S'</sub>/IP]PRO [<sub>I</sub>lesa<sub>i</sub>] [<sub>VP</sub>  
ekki/alltaf t<sub>i</sub> bókina]]

We have observed that Icelandic has three kinds of embedded clauses. Finite clauses behave as expected given current analyses of VR. The finite verb raises to pick up its agreement and tense features. Regardless of the specific mechanism employed, the obligatory nature of VR in Icelandic finite clauses is in no way idiosyncratic. Non-finite clauses, however, are a very different matter. First, as we have observed, the two kinds of infinitive constructions pattern in opposite ways. In ACI infinitives VR is strictly prohibited while in PRO infinitives it is absolutely obligatory. Furthermore, both types of infinitives contrast with infinitives found in the Romance languages, specifically French. ACI infinitives contrast in barring raising of any verb whatsoever and PRO infinitives contrast in requiring that every verb raise, regardless of its theta assigning qualities. It is the obligatory and exhaustive nature of these two requirements that require explanation. Furthermore, it requires an account largely in terms of principles of UG rather than specific features of Icelandic. The reason is that infinitives only occur in embedded positions. On the assumption that processes that occur only in infinitive clauses are not part of the Primary Linguistic Data available to the child, we must explain their properties in terms of principles of UG (see Lightfoot 1989 and in press). The fact that VR is mandatory in PRO infinitives and prohibited in ACI infinitives cannot be fixed without relying on negative data; data that this is not part of the PLD. Thus we must seek an account in terms of principles of UG. In what follows, I offer such an account. In section 3, I outline some assumptions which suffice to derive the fact that VR is obligatory in PRO infinitives and I provide a way of prohibiting VR in ACI constructions.

2. Some Assumptions

Four assumptions suffice to derive the observed data. I will list them and discuss them in turn.

First, following Chomsky (1977), I assume (6).

(6) PRO is freely indexed (anywhere) whereas NP-t and WH-t are indexed under movement.

(6) is one way of encoding the fact that PRO differs from the other empty categories (ec) in several respects. Thus, for example, PRO need not have an antecedent, nor, if it has one, need it be subjacent to it. This contrasts with the ecs left behind by 'Move  $\alpha$ '.

In addition, assumption (6), in combination with the version of the ECP motivated in Aoun, Hornstein, Lightfoot and Weinberg (1987), provides a natural mechanism for excluding PRO from the purview of the ECP.

(7) ECP: Indexed ecs must be properly governed by an  $X^{\circ}$  at PF i.e. on the PF side of the grammar

All theories of proper government must find some way of excluding PRO from the strictures of the ECP. The combination of (6) and (7) accomplish this by allowing PRO to receive its index at LF and making proper government a PF requirement. Thus, where the ECP applies, PRO is an unindexed ec and hence not subject to proper government (see Aoun et. al 1987 and Franks and Hornstein). What (7) says, in effect, is that bearing an index is a necessary condition for PF visibility. PROs can evade the requirements of the ECP by being "invisible" at PF where the ECP applies. Let's make this visibility condition explicit.

(8) To be visible at a given level of representation an ec must bear an index

(8) implies that for an ec to participate in grammatical processes at any given level of representation, the ec must be indexed. Thus, only indexed ecs can be members of A-chains. Similarly, only indexed ecs can transmit case or theta roles or be controlled or bear an arbitrary interpretation. For present purposes, one instance of (8) is of particular importance: only indexed ecs can be PF active, i.e. participate in PF processes.

The final required assumption is borrowed from Stowell (1981). I assume that case marking is actually case checking and that it is carried out on the PF side

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of the grammar. This, in conjunction with (8), implies that only indexed ecs can be members of case chains. Case chains are chains in which one of the elements bears case. Given the assumption about case marking actually being case checking at PF, I assume that case chains are PF constructs (see Franks and Hornstein).

None of these assumptions is particularly controversial. Furthermore, each has been independently motivated (see Aoun et. al. (1987) and Franks and Hornstein (1989)). The four assumptions taken together imply a key conditional in terms of which the obligatory movement of V to I in Icelandic PRO infinitives can be explained.

(9) If a PRO were PF active then it would be subject to the ECP  
 (9) follows from (6), (7) and (8) as follows. To participate in PF processes an ec must be visible. By (8), to be visible at PF a PRO must be indexed at PF. By (7), all indexed ecs at PF must be properly governed. In other words, PF active PROs are subject to the ECP.

3. VR in Icelandic Infinitives

In this section, I will provide evidence for two conclusions. First, I show that PRO is obligatorily case marked in Icelandic. Second, I provide evidence that a V in I properly governs the subject position in Icelandic. Thus, we can view the movement of V to I in PRO infinitives as a way for case active (hence, indexed) PROs in Icelandic to meet the ECP requirement. In short, VR in this case is simply an instance of (9).

As is well known, Icelandic PRO seems to be obligatorily case active. In particular, it always forms part of a case chain. There are three reflections of this fact. PRO in Icelandic can bear 'quirky' case.

(10) Ég vonast til að PRO vanta ekki einan fé  
 I hope to COMP lack not alone(acc)  
 money

The embedded verb in (10), vanta, assigns quirky case to its subject. Given the standard assumption that secondary predicates agree in case with what they modify, the fact that einan appears in the accusative case in (10) indicates that this quirky case marking obtains even when the subject is PRO.

Case marking is evident in cases of non-quirky case marking as well. In this instant, the PRO can bear the

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nominative case, as predicate adjective agreement indicates.

- (11) *ég bad hann a PRO vera góður*  
 I asked him(acc) COMP to be good(nom)

The predicate adjective *góður* appears in the nominative case in (11). It seems that PRO can bear nominative case if the verb whose clause it is in is not a quirky case marker. If it is a quirky case marking predicate however the PRO must bear the quirky case.<sup>23</sup> Following, Andrews (1989), I assume that nominative case assignment is a default case.

PRO enters into case processes in one more way in Icelandic. It can be part of a case chain in which the PRO "transmits" the case of its antecedent. (12)a minimally contrasts with (11) in that the predicate adjective bears the case of the accusative object controller of the PRO *hann*. If we assume that PRO can form a case chain with *hann*, we account for the two attested case marking configurations.

- (12) a. *ég bad hann að PRO vera góðan*  
 I asked him(acc) COMP PRO to be good(acc)  
 b. *Hún skipaði honum a PRO vera góðum/  
 góður/\*góðan*  
 She ordered him(dat) C PRO to be good  
 dat/nom/\*acc

(12)b indicates that it is the case of the controller that is relevant. The verb *skipaði* assigns dative case to its object. As the data indicate, the predicate adjective can appear in either the dative case or the default nominative case. Accusative case is barred.

These examples indicate that in Icelandic PROs are case active in the sense that they must be members of a case chain. They can do this either by directly bearing case, or by forming part of a case chain with the controller as head. With either option, given (8), it follows that PRO must be indexed and given (9), it follows that PRO must be properly governed in Icelandic. I would like to suggest that the reason that the infinitival V obligatorily raises to I in these structures is to properly govern the indexed case active PRO.

If this supposition is correct, it implies that a raised V in Icelandic properly governs the subject position in Icelandic. This appears to be correct (see Ottósson 1989a). The relevant piece of corroborating evidence is the absence of ECP effects in Icelandic.

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Icelandic displays neither the that-t effect nor subject/object asymmetries in 'long' extraction configurations. In short, the ECP seems not to apply.

- (13) Hver<sub>i</sub> segir þú [COMP/ð-ad t<sub>i</sub> kaupi bókina]  
 who say you COMP buy book  
 "\*Who did you say that bought the book"
- (14) a. Hvað<sub>i</sub> veist þú ekki hvort Jón keypti t<sub>i</sub>  
 what know you not whether Jón bought  
 "?What don't you know whether Jón bought"  
 b. Hver<sub>i</sub> veist þú ekki hvort t<sub>i</sub> keypti bókina  
 who know you not whether bought the  
 book  
 "\*Who don't you know whether bought the book"
- (15) b. Þetta er glæpur sem ég veit ekki hvaða  
 glæpmaður framdi  
 this is crime that I know not what  
 criminal committed  
 a. Þetta er glæpamaðurinn sem ég veit ekki  
 hvaða glæp framdi  
 this is criminal that I know not  
 what crime committed

(13) indicates that extraction of a subject across an overt complementizer, i.e. ad, is acceptable in Icelandic. The lack of a contrast between the a and b sentences in (14) and (15) provide further support for the inapplicability of ECP restrictions in Icelandic.

These facts are fully explicable if we assume that a V in I properly governs the subject position. Recall that in Icelandic finite clauses the VR obligatorily applies raising V to I. If this raised V properly governs the WH-t in the examples above, then the ECP is fully adhered to and the acceptability of these sentences is accounted for.<sup>4</sup> However, if a raised V in I in finite clauses properly governs the subject position in finite clauses then a raised V in infinitival clauses should similarly properly govern the subject position. This is just the desired conclusion. Given (9), the PRO subject must be properly governed in Icelandic. By moving to I, the V moves to a position from which it can properly govern the subject position and thereby allows the indexed PRO to meet the requirements of the ECP.

Note two features of this analysis. First, it is incompatible with the account provided in Pollock (1989) that prohibits the raising of most verbs in infinitival clauses. Pollock (1989) claims that VR in infinitives



would violate theta theory except in the case of verbs such as avoir and être which are not theta assigning predicates. The Icelandic data indicate that this analysis cannot be maintained. All verbs raise in PRO infinitive constructions regardless of their theta assigning properties. Second, the account crucially relies on treating Icelandic PROs as case marked. However, we cannot assume that PRO in general is case marked, as suggested for example in Chomsky (1986b), for this would imply that all PROs must be properly governed in all languages. However, this is incorrect. At least some PROs in English are ungoverned e.g. non-obligatory Control PROs. Furthermore, Icelandic contrasts with the other Scandinavian languages as regards the order of the negation element and adverbs such as alltaf in infinitival clauses. We could account for this difference if we assumed that in these languages, as in English, PRO is not case marked.

How reasonable is this assumption? There is no counter-evidence to this assumption from English or the other Scandinavian languages. No data analogous to those cited in (10), (11) and (12) concerning predicate adjective or secondary predicate agreement exist in these languages. There is no overt evidence to suggest that PRO is case marked in these languages nor what case it possesses if it is case marked. If PRO does bear case in these languages, it this must be assigned by UG. Furthermore, the particular case assigned to PRO must also be determined by UG given that there is no relevant evidence in the primary linguistic data which could accommodate linguistic variation. However, the existence of a UG principle is quite unlikely given the Icelandic facts. Icelandic PRO does not bear a unique case. It can be quirky case marked, be part of a case chain in which some other member bears case and can receive a default nominative case.<sup>25</sup> If PRO universally bore a particular case, these data would be inconsistent with the generally accepted position that chains have only one case marked member and that lexical elements can bear at most one case (Chomsky 1986b:135). In sum, there is no empirical reason to question the assumption that Icelandic PRO is case active in Icelandic but not in English or the other Scandinavian languages and there are theoretical reasons for rejecting the position that PRO is universally case marked.

An important question still remains: How does the

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child figure out that PRO must be case marked in Icelandic but not in English or Norwegian? I offer the following speculative solution. Assume the two following markedness assumptions. First, that PROs are not case marked and second that any ec that can be case marked i.e. be a member of a case chain, must be case marked. Icelandic has quirky case marking predicates. Lightfoot (1977) and Ottósson (1989c) have argued that such predicates must assign their case. However, this implies that some PROs must be case marked; those which are the subjects of quirky case marking predicates. Thus, the Icelandic child will have positive evidence that PRO can bear case in Icelandic as it must bear quirky case. The English (or Scandinavian child) will have no such positive evidence and will conclude that the unmarked option obtains and that PRO is not case marked. The Icelandic child, furthermore, will assume, given the second assumption, that PRO must be case marked if it can be. But he clearly knows that it can be! He knows from the obligatory nature of quirky case marking that PRO can be case marked. He also knows that VR can apply to allow these case bearing PROs to be properly governed. He concludes that all PROs must bear case in Icelandic.

These remarks are clearly speculative. The second markedness assumption, nonetheless has some plausibility. It can be viewed as an application of the Principle of Full Interpretation; realize case if you can. Moreover, it clearly makes a strong empirical prediction: Any language which has quirky case will have case marked PRO.

The analysis presented above ties the obligatoriness of VR in infinitives to the fact that Icelandic PROs are case marked and hence must be properly governed. A recent analysis by Sigurdsson (1989:80) suggests a slightly different analysis of these data. He suggests that VR must apply so that I can case mark the PRO as only a lexically filled I can be a case assigner. Further, Icelandic PROs are obligatorily case marked. There is a problem with this solution. It predicts that if a PRO is not directly case marked but is a member of a case chain of which it is not the head, then VR need not apply. We have seen that this is indeed an option in Icelandic.

(16) Hún skipaði honum að (\*ekki) vera (ekki)  
góðum

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She ordered him(dat) C (\*not) to be (not)  
good(dat)

In (16), PRO is part of a case chain with honum as the head. This results in the predicate adjective bearing dative case. In these sorts of constructions, the PRO is not itself case marked BUT is a member of a case marked chain. However, here too VR is obligatory as the unacceptability of the pre-verbal ekki indicates.<sup>6</sup> This is not what Sigurdsson's analysis would lead us to expect.<sup>7</sup>

This said, the analysis presented above is very similar to Sigurdsson's. Both tie together VR and the fact that PRO is case marked in Icelandic. The main difference is that the present analysis sees VR as only indirectly related to case marking and rather more closely related to the ECP.

One last problem remains. Why is VR prohibited in ACI constructions? I would like to suggest this is due to the following principle.

(17) An element can be (properly) governed by at most one X<sup>0</sup>

(17) is reminiscent of Koster's (1984) assumption that core grammatical dependencies are unique: If 'R' is a core grammatical dependency and ' $\alpha R \beta$ ' then there is only one  $\alpha$  for each  $\beta$  (Koster 1984:418). If we assume that (proper) government is a core grammatical relation, then this implies that an element can have at most one (proper) governor. (17) becomes a special case of Koster's principle. It suffices to block VR raising in Icelandic ACI constructions. Consider (18).

- (18)a. Ég taldi Mariu (ekki/alltaf) lesa bókina  
I believe M(acc) not/always read-infin book  
b. María<sub>i</sub> virtist t<sub>i</sub> (ekki/alltaf) lesa  
M (nom) seemed t<sub>i</sub> not/always read-infin  
(\*ekki/lesa) bókina  
the-book  
c. Drengirnir eru taldir hafa verid kysstir  
The boys(nom)<sub>i</sub> are believed(nom) t<sub>i</sub> have  
been kissed(nom)

These sentences indicate that in ACI constructions the matrix verb (properly) governs the embedded subject position. In (18)a the matrix verb taldi case marks (and hence governs) Mariu, in (18)c taldir properly governs the NP-t left by NP movement, as does virtist in (18)b. As (18)b indicates, VR is unacceptable in these constructions.

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ACI constructions with raised Vs instantiate the structure in (19).

(19) NP V<sub>1</sub> [<sub>S</sub>/I<sub>F</sub> NP\* [<sub>I</sub> V<sub>2</sub>] ...t<sub>2</sub>...]

We have seen that in these structures, V<sub>1</sub> properly governs NP\*. If V<sub>2</sub> raises to I to yield a structure such as (19), then it too will properly govern NP\*. This violates (17). Thus, VR is prohibited from applying in ACI constructions and the I must be left vacant given that a V raised to I in Icelandic properly governs the subject position.

#### 4. Some Further Implications

The present analysis turns on the claim that Icelandic PROs must be properly governed. On the assumption that proper government implies government, this would appear to contradict the PRO theorem which states that a PRO must be ungoverned. However, the data above do not force this conclusion. I have assumed that the ECP is a requirement that holds on the PF side of the grammar (see (7)). The PRO theorem is derived from principles of the Binding Theory. If we assume that the Binding Theory applies at LF and the ECP applies at PF then we can assume that PRO is indeed ungoverned at LF and that it is properly governed on the PF side of the grammar. However, saving the PRO theorem in this way has a cost. It implies that the Binding Theory only applies at LF, that the ECP applies only at PF and that the locality restrictions on Verb Raising cannot be traced to an LF notion of proper government. For example, a theory of proper government of the kind outlined in Lasnik and Saito (1984) cannot be extended to VR phenomena precisely because in this system the ECP applies at LF. To maintain an LF version of the ECP requires giving up the PRO theorem if the analysis above is correct.

The Icelandic data also provide support for the conjunctive account of the ECP outlined in Aoun, Hornstein, Lightfoot and Weinberg (1987) and the T-model of grammatical organization outlined in Chomsky and Lasnik (1977). Consider the facts concerning case marking of PRO. With a non-quirky case marking predicate the PRO can either bear the case of its antecedent or the default nominative case.

(20) Hún skipaði honum að PRO vera  
góðum/góður/\*góðan

She ordered him(dat) C PRO to be

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good dat/nom/\*acc

The assumptions outlined in section 2 in conjunction with the assumption that PF branches with respect to LF leads us to expect this dual possibility in (20). By (6), PRO is freely indexed anywhere. If indexed to its controller at S-structure then, at PF, PRO and its controller form the case chain ( $\text{honum}_i, \text{PRO}_i$ ) and PRO "bears" the case of its controller. In effect, in this case chain, PRO acts just like an NP-t. This is not surprising; PRO is properly governed and, if indexed, it will be indistinguishable from an NP-t at this level of representation.⊗

To derive the sentence in which PRO bears the default nominative case, refrain from coindexing PRO and its controller until LF. PRO won't form a case chain with honum and won't "receive" its case. PRO is freely indexed at PF to enable it to bear case but its index is different from the index of its controller. For this account to go through, we must assume that PRO can be freely indexed anywhere and that PF branches with respect to LF. Only this assumption enables us to index PRO one way at PF and another at LF. Were the grammar linear, this sort of indexation would be impossible. PRO and its controller would have to be coindexed or conindexed at both S-structure and LF. The latter assumption yields the wrong interpretive results. The former does not allow for the case marking possibilities that are attested in Icelandic. This account also predicts that the only ec that can form multiple case chains is PRO. NP-t is always indexed by S-structure as it is indexed under movement. Hence, NP-t can not delay its indexation until PF. This implies that it must form a case chain with its antecedent. This is correct. An NP-t always transmits the case of its antecedent (see Anderson 1989).

- (21) a. Drengirnir eru taldir hafa verið  
           kysstir/\*kyssta  
 The boys(nom)<sub>i</sub> are believed t<sub>i</sub> have been  
 kissed(nom/\*acc)
- b. Hann segir drengina vera talda hafad  
           He says the boys(acc)<sub>i</sub> be believed t<sub>i</sub> have  
           verið kyysta/\*kysstir  
           been kissed(acc/\*nom)

Given these facts, it is also clear that the ECP must apply on the PF side of the grammar. Recall that all PROs in Icelandic must be properly governed. But

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some PROs are only indexed at PF. Section 3 argued that VR is required in PRO infinitives to meet the strictures of the ECP. But the ECP only applies to indexed ecs. Thus, the analysis requires the ECP to apply at PF.

1. I would like to thank Steve Anderson, Kjartan Ottósson, David Lightfoot, Amy Weinberg and Richie Kayne for helpful comments.

2. The data in this section is culled from Anderson (1989), Andrews (1989), Ottósson (1989a,b), Sigurdsson (1989) and Thrainsson (1979).

3. Ottósson (1989c) argues that oblique cases must be assigned. If 'quirky' is 'oblique' in the relevant sense, as Ottósson suggests, this would also explain why the default nominative form of the PRO infinitive construction is unavailable with quirky case predicates. A similar principle is suggested in Lightfoot (1977).

4. The fact that the raised V properly governs the subject position in Icelandic counts against reducing the Tensed S condition to the ECP (Chomsky 1986b). The structure given in (i) (see examples (14) and (15)) does not constitute an ECP violation despite the fact that the WH-t is not antecedently governed.

(i) WH<sub>i</sub>.....[CP/SP-WH<sub>j</sub>[IP/SP t<sub>i</sub> .....t<sub>j</sub>...]]

Being properly governed by the raised verb suffices to make the structure licit. This implies that an NP-t in the same position should also be acceptable. But passivization from the subject position of a finite embedded clause is strictly prohibited.

5. Similar facts obtain in Russian. See Franks and Hornstein (1989) for discussion.

6. These constructions vary in acceptability among speakers. However, all agree that sentences without VR are far worse than those with it.

7. Sigurdsson also assumes that quirky case marked subjects derive from post verbal position initially. This makes the necessity of VR in examples with quirky case marked PRO superfluous. Ottósson (1989b) argues against Sigurdsson's analysis. This reanalysis does not require VR for purposes of case assignment in these constructions either.

8. Observe that this chain will not violate the theta criterion as it holds at LF.

#### References

- Anderson, S.: 1989, 'The Grammar of Icelandic Verbs in-  
**st**, in Maling and Zaenen.
- Andrews, A. :1989, 'Case Structure and Control in Modern  
Icelandic', in Maling and Zaenen.
- Aoun, J., N. Hornstein, D. Lightfoot and A. Weinberg:  
1987, 'Two Types of Locality', Linguistic Inquiry,  
18.4, pp. 537- 577.
- Chomsky, N.: 1977, 'On WH Movement', in P. Culicover, T.  
Wasow, and A. Akmajian (eds.), Formal Syntax, 71-  
132, Academic Press, New York.
- : 1986a, Barriers, MIT Press, Cambridge, Mass.
- : 1986b, Knowledge of Language, Pantheon, New York.
- : 1988, 'Some notes on Economy of Representation  
and Derivation', MIT MS.
- and H. Lasnik: 1977, 'Filters and Control',  
Linguistic Inquiry, 8, 425-504.
- Emonds, J.: 1978, 'The Verbal Complex V'-V in French',  
Linguistic Inquiry, 9, pp. 151-175.
- Franks, S. and N. Hornstein: 1989, 'Properly Governed  
PRO and Secondary Predicates in Russian', IU and  
UMCP MS.
- Hornstein, N. and K. Ottósson: forthcoming, 'Expletives:  
a comparative study of Icelandic and English',  
UMCP MS.
- Hornstein, N. and D. Lightfoot: 1981, Explanation in  
Linguistics, Longman, London.
- Koster, J.: 1984, 'On Binding and Control', Linguistic  
Inquiry 15, pp. 417-459
- Lasnik, H. and M. Saito: 1984, 'On that Nature of Proper  
Government', Linguistic Inquiry, 15, 235-289.
- Lightfoot, D.: 1977, 'On traces and Conditions on  
Rules', in Formal Syntax, P. Culicover, T. Wasow  
and A. Akmajian eds. Academic, New York.
- : 1989, 'The Child's Trigger Experience: Degree-0  
learnability', Behavioral and Brain Sciences, 12,  
321-375.
- Maling, J. and A. Zaenen: 1990, Modern Icelandic Syntax  
Academic, New York.
- Ottósson, K.: 1989a, 'Governing Properly in Icelandic',  
UMCP MS
- : 1989b, 'Structural and Lexical Case in  
Icelandic', UMCP MS.
- : 1989c, 'The Anticausative Middle and Other

## VERB RAISING

- Voices in Modern Icelandic', UMCP MS.
- Pollock, J-Y.: 1989, 'Verb Movement, Universal Grammar and the Structure of IP', Linguistic Inquiry, 20, pp. 365-424.
- Sigurðsson, H.A.: 1989, Verbal Syntax and Case in Icelandic, PhD dissertation, Lund.
- Stowell, T.: 1981, Origins of Phrase Structure, unpublished dissertation, MIT.
- Thrainsson, H. 1979: On Complementation in Icelandic, Garland, New York.