

November 2007
To appear in *Linguistic Inquiry*.

Fact and Fiction in Icelandic Control*

Jonathan David Bobaljik and Idan Landau

Abstract

A rich literature on Icelandic syntax has established that infinitival complements of obligatory control (OC) verbs constitute a case assignment domain independent from the matrix clause, and in this differ systematically from all types of A-movement, which manifest case dependence/preservation. As Landau (2003) observed, these facts provide significant counter-evidence to the Movement-Theory-of-Control (MTC) (Hornstein 1999 and subsequent work). Boeckx and Hornstein (2006b) (B&H) attempt to defend the MTC in light of Icelandic data. We offer here a review of the relevant literature, and show that B&H's reply fails on a number of counts. We further argue that contrary to their claims, PRO in Icelandic gets structural, not default (nominative) case, leaving B&H with no account for the distinction between PRO and lexical subjects.

Keywords: case transmission, case concord, control, raising, Icelandic, PRO

1 Introduction

The relevance of case in Icelandic for theories of control and raising was first noted in Andrews (1976, 1982) and Thráinsson (1979) and explored in depth in Andrews (1990) and Sigurðsson (1989, 1991). As Landau (2003) has observed, these facts provide significant counter-evidence to the Movement-Theory-of-Control (MTC), as presented in Hornstein (1999, 2003) and Boeckx & Hornstein (2003, 2004, 2006b). The core fact is this: infinitival complements of Obligatory Control (OC) verbs generally constitute an

independent case assignment domain from the matrix clause, and in this property, differ systematically from all types of A-movement (passive, raising, ECM/Raising-to-Object). This data provides some of the most compelling evidence for a null category as the subject of OC infinitives that is distinct in kind from trace. This conclusion is one result whose implications are recognized across frameworks (GB, LFG), but which is directly at odds with the core thesis of the MTC. Boeckx and Hornstein (2006a) (B&H) provide the first attempt to defend the MTC in light of Icelandic data. They contend that “the argument does not undermine the movement approach when the facts are considered in their entirety” (p.591).

Despite this (repeated) claim to have considered “the facts ... in their entirety” (B&H p.591, 604 cf. Boeckx & Hornstein 2004:448), B&H have been quite selective in the facts they report, failing to acknowledge, let alone discuss, key facts, prominently discussed in the literature that they cite (including examples of the type given in Landau (2003) to motivate the counter-argument). The oversights lead to a misleading characterization of the established results in this area, and theoretical proposals that are at odds with the known facts.

In the service of permitting a fairer evaluation of future debates, we offer here a careful review of the relevant literature. Rather than advancing new data or theoretical proposals in this paper, we restrict ourselves to a discussion of the empirical facts as presented in the literature prior to 2003, and the conclusions to be drawn from them. We compare these to the claims (factual and theoretical) in B&H and show that B&H’s article fails to explain the classic raising/control contrast in case agreement patterns. In

addition, the considerations that lead to this conclusion expose an important lacuna in the MTC, namely, its failure to explain the fundamental fact of OC – that controlled subjects are unpronounced.¹

In section 2 we review the classic contrast in Icelandic between A-chains, in which quirky case is preserved, and OC dependencies, in which it is not. We show that B&H’s core theoretical proposal for OC (“case overwriting”) fails to capture this contrast, and generates false predictions elsewhere. In section 3 we address B&H’s claim that the NOM case seen on embedded secondary predicates and floating quantifiers (SP/FQ) is a marked, default case. It is shown that all the available evidence points to the opposite conclusions – embedded NOM is neither marked nor default, but rather standard structural case. Section 4 discusses the detrimental implications of this conclusion for the MTC; essentially, lexical subjects are overgenerated in OC infinitives, a result unchanged even when their case is inherited from the controller or is locally determined to be quirky. In section 5 we show that inherent/quirky case *can* be transmitted to PRO, contra B&H’s claims; this undermines their implied account of why embedded NOM is not marked under an inherently case marked/quirky controller. Finally, the conclusion addresses some broader issues of methodology and linguistic ontology underlying this debate.²

2. The central issue: case in control vs. A-movement

The primary challenge to the MTC from Icelandic case facts is that control is systematically unlike all forms of A-movement. For expository reasons, we consider separately environments in which the embedded predicate is a quirky case assigner (§2.1-2.2) from those where it is not (§2.3). However, the point is the same—it is only in

control configurations that case-independence between the matrix and embedded environments obtains.

2.1 Case preservation: The classic paradigms

As Andrews (1990) comments, one of “[t]he two most striking peculiarities of [quirky] case-marked NPs [is] the phenomen[on] of case preservation...” (p.189). In Government-Binding (GB) terms, quirky case DPs behave for all manner of case-driven movements as if they were moving for case. However, they systematically retain the quirky case associated with their θ -assigning predicate.³ We reproduce here Andrews 1990:189-190 illustration of case preservation under passive (in (1)), ECM/Raising-to-Object (in (2)), and passive of ECM in (3); all examples are paired with garden variety structural case examples.⁴

- (1) a. Strákarnir voru kitlaðir.
 the.boys.M.PL.NOM were tickled.M.PL.NOM
 ‘The boys were tickled.’
- b. Strákunum var bjargað
 the.boys.M.PL.DAT was rescued.DFLT
 ‘The boys were rescued.’
- (2) a. Ég tel strákana (hafa verið) kitlaða.
 I believe the.boys.M.PL.ACC to.have been tickled.M.PL.ACC
 ‘I believe the boys to have been tickled.’
- b. Ég tel strákunum (hafa verið) bjargað.
 I believe the.boys.M.PL.DAT to.have been rescued.DFLT

‘I believe the boys to have been rescued.’

- (3) a. Strákarnir eru taldir (hafa verið) kitlaðir.
the.boys.M.PL.NOM are.PL believed.M.PL.NOM to.have been tickled.M.PL.NOM
‘The boys are believed to have been tickled.’

- b. Strákunum er talið (hafa verið) bjargað.
the.boys.M.PL.DAT is.SG believed.DFLT to.have been rescued.DFLT
‘The boys are believed to have been rescued.’

Andrews characterizes these examples quite succinctly: “[A]s the structurally case-marked NPs of the (a) examples shift between subject and object positions, their case shifts between nominative and accusative, but the [quirky] case-marked NPs in the (b) examples remain dative” (p.190).⁵ Thus, the distribution of quirky case DPs precisely tracks that of structural case DPs. As for the case value that surfaces on the moved DP, however, it is always the “lowest” case value, i.e., the one determined by the θ -assigning predicate. Indeed, it was this mismatch between distribution (like structural case) and form (case preservation), that constituted the landmark challenge to GB Case Theory, as articulated in Zaenen, Maling and Thráinsson 1985).

Control is strikingly different (see Andrews 1976, Andrews 1982, Andrews 1990, Thráinsson 1979, Sigurðsson 1989, Sigurðsson 1991; hereafter labeled collectively as ATS). In control structures, the case of the controller is determined locally—the controller DP bears the locally appropriate structural case. Case-preservation is ungrammatical, as shown here.

- (4) a. Honum var bjargað af fjallinu.

Him.DAT was rescued.DFLT of the.mountain

‘He was rescued from the mountain.’

b. Hann /*Honum vonast til að verða bjargað af fjallinu.

He.NOM/*DAT hopes to be rescued.DFLT of the.mountain

‘He hopes to be rescued from the mountain.’ (after Andrews 1990:198)

Under the standard analysis of control, the failure of case-preservation is the result of there being two distinct nominal elements involved. In GB, these are the controller DP and PRO, each with one case and one theta-role. This corresponds to ‘anaphoric control’ in LFG, whereby the PRO subject of the embedded clause (SCOMP) is a distinct F-structure object from the matrix controller (see Andrews 1990:197).

The failure of case preservation under (non-quirky) object control is arguably shown by examples such as (5), after B&H’s (7).⁶

(5) (#) Jón bað hann að leiðast ekki einum.

Jon.NOM asked him.ACC to be.bored not alone.DAT

‘Jon asked him not to be bored alone.’

The challenge that these facts propose for the MTC should be obvious: if control is analyzed as a species of A-movement, quirky case should be retained on the “moved” DP, just as it is in all types of A-movement dependencies (raising, ECM, passive).⁷ However, this is patently impossible. As Landau (2003) noted, the challenge lies not merely in describing the control facts, but rather in describing them in a way consistent with the raising facts. Most specifically, the task is to explain why the mechanism that ensures case independence in OC dependencies does not apply in raising chains, which uniformly

display case preservation. As we show in the next section, B&H does not meet this challenge.

2.2 Case cover-up: a non-answer

B&H addresses the failure of case-preservation effects in control constructions such as (4b) and (5). The derivation they propose for a control example in all relevant respects identical to (4b) is given here (their (26)-(27), p. 599).

- (6) a. nominative NP ... [quirky FQ/SP ...]
 b. Jón vonast til [að leiðast ekki einum]
 Jon.NOM hopes to be.bored not alone.DAT
 ‘Jon hopes not to be bored alone.’

- (7) $NP_i T^\circ \dots t'_i V^\circ \dots [T_{inf} \dots V^\circ [t_i FQ]]$

Step 1 embedded V° assigns a θ -role/quirky Case to NP and quirky Case to FQ

Step 2 matrix V° attracts NP and assigns a θ -role to it

Step 3 matrix T° assigns structural Case to NP, which moves to check EPP.

Note that under this analysis, the moved DP is assigned case twice, receiving quirky case in its base position and structural case in (what amounts to) its surface position. B&H’s core proposal is that quirky case on a moving DP is obligatorily overwritten by a structural case assigned at the landing site (or in the higher clause). Thus, they state: “As for the Case value that surfaces on the moving element [...], it is always the highest Case value” and thus, “Case is morphologically realized only once ..., according to the context in which the NP is pronounced” (pp. 600-601).

The reader will note that this position is flatly contradictory to the standard analysis

of quirky case, as discussed in section 2.1 above. Indeed, on that view, quirky case is *defined* by its systematic resistance to overwriting. B&H do not mention the case-preservation effect. This is an unfortunate omission as it consequently remains unclear how their theory would avoid falsely predicting case-overwriting whenever a quirky DP undergoes movement, failing to account for the standard examples that motivate the concept of quirky case.⁸

Within B&H's framework, there are only two possible analyses of quirky DPs: either they bear a hidden structural case feature that must be checked or they do not.⁹ If they do, the structural case feature is valued in the matrix clause, correctly predicting case overwriting in control, but crucially *incorrectly* predicting overwriting in all standard A-movement contexts (as discussed above). If, on the other hand, quirky DPs do not bear any additional (structural) case feature – perhaps because structural case is a Last Resort option – then their quirky case should be preserved through all derivational stages. This is the correct result for A-movement, but not for control, where the lower quirky case never surfaces on the controller. Could B&H then assume that quirky DPs bear an *optional* structural case feature? No, because such optionality would allow case preservation in control and case overwriting in A-movement – two scenarios that never arise.

As far as we can determine, except by brute stipulation (i.e., presupposing the raising/control distinction to be explained), the MTC has no means of predicting the systematic correlation of case preservation effects with raising (and other A-movement) and their absence from control, precisely as Landau (2003:493) noted.

2.3 Case matching and independence: structural case

(indeed obligatory in (9b)) in the lower clause, but impossible in the (a) examples. Note that both the nominative and accusative forms of the participle show number, gender and case agreement with *Maria*, and are not default forms, a fact that will be relevant in section 3.

2.4 Case dependence – the clausemate speculation

B&H address a contrast like (8), but fail to note the sharper contrast with participles and nouns. Their derivation of an ECM structure like (8a) is given as (10a) (their (35)), and should be contrasted with object control in (10b) (their (37)):

(10) a. $NP_i v^0 \dots V^0 \dots [T_{inf} \dots V^0 [t_i FQ]]$ *ECM*

Step 1: embedded V^0 assigns a θ -role to NP

Step 2: matrix v^0 assigns structural accusative Case to NP and FQ by multiple Agree

Step 3: NP raises to matrix Spec,vP (to check EPP)

b. $NP_i v^0 \dots t'_i V^0 \dots [T_{inf} \dots V^0 [t_i FQ]]$ *object control*

Step 1: embedded V^0 assigns a θ -role to NP

Step 2: matrix V^0 attracts NP and assigns a θ -role to it

Step 3: matrix v^0 assigns structural accusative Case to NP and FQ by multiple Agree

The key difference is in Step 2 of (10b). Thus, they “speculate that the marked default [sic] nominative Case on the floating quantifier in [structures corresponding to (10b)] is a distance effect” (p.602). Where the two targets of multiple Agree are in the same clause at the point of case assignment (as in (10a)), case sharing is strictly obligatory.

There are at least two significant problems with this approach. The first one is factual. B&H assume, incorrectly, that ACC is always available on agreeing elements in the infinitive, and that only the “marked” NOM in examples like (8b) is in need of explanation. The truth of the matter is that NOM has a wider distribution than ACC, and is strongly, perhaps exclusively, preferred in examples like (9b) (we return to the status of the NOM in the next section).

The second problem is that even for agreeing adjectives, distance (at the point of case assignment) does not appear to be the relevant factor. In particular, Andrews (1982), in discussing the obligatory agreement in ECM and raising configurations, provides examples in which the ECM DP and the agreeing element are in different clauses, such as (11).

- (11) Þeir telja hana (vera) sagða (vera) vinsæla/*vinsæl.
 they believe her.ACC to.be said.ACC to.be popular.ACC/*NOM

‘They believe her to be said to be popular.’ (after Andrews 1982: 445)

On B&H’s assumptions, the ν associated with ECM verbs such as *segja* ‘say’ has an EPP feature (Step 3 of (10a)). If this feature is retained under passive (e.g., if passive ν P is a phase; see Boeckx and Hornstein 2004:437), movement of the DP into the intermediate clause will be forced prior to case assignment by the matrix ν under multiple Agree. Such long-distance constructions should then pattern with control—but they do not. In fact, whether or not intermediate movement is assumed, there are two elements in (11) agreeing in case with the ECM DP, namely the passive participle in the intermediate clause and the predicate adjective in the lowest clause. Wherever B&H take that DP to be

at the point of case assignment, it is a clausemate with one agreeing element and not the other. Hence, the clausemate condition does not appear to be the relevant determinant for case agreement. NOM is licensed under object control but not under ECM, even when the ECM-ed DP and the agreeing element are not clausemates. Once again, the MTC fails to distinguish raising from control in well-known examples.

3. Nominative PRO: Structural or default case?

One aspect of the Icelandic control facts that has received especially prominent attention since Sigurðsson 1991) is the nature of the NOM case that surfaces on (elements agreeing with) PRO. As B&H recognize, if this NOM is structural, this will conclusively establish that the controller and the controllee each bear one structural case and one theta-role, and undermine the MTC. B&H thus repeatedly stress that they treat the NOM in question as “default”, rather than structural case. We focus on this question here, noting not only that B&H fail to provide evidence for their position, but also reviewing the compelling evidence in the literature for the structural nature of this case.¹⁰

3.1 The “case” for default case

When the embedded predicate is not a quirky case assigner, PRO may take on NOM case (diagnosed by agreement on the SP). According to B&H, this option is marginal. Example (12) is their (14), with their judgments.

- (12) Jón bað Bjarna að koma einan/??einn.
 Jon.NOM asked Bjarni.ACC to come alone.ACC/alone.NOM
 ‘Jon asked Bjarni to come alone.’

B&H write: "... though nominative is marginally possible on the floating quantifier, accusative is strongly preferred. We take this to indicate that in such situations, nominative is really a marked default Case realization" (p. 595). Within their framework, this is significant, since they make it clear that default case can be "factored out" of the picture, being entirely distinct from structural case, which is unavailable to the embedded subject: "...we take this nominative on the secondary predicate to be a default Case, as there is no source for structural nominative in the embedded clause" (p. 596).

Once out of the picture, nominative PRO no longer bears on multiple case assignment. Suppose the controller bears case α and the embedded SP case β . If either α or β is inherent/quirky, it simply reflects a θ -role, not abstract Case. If β =NOM, again it is not abstract/structural Case, but default case. B&H conclude: "Since we have shown that there is no evidence that multiple structural Cases are assigned to a chain, the argument against a movement theory of control dissolves" (p. 598).

We note that the claim that NOM in Icelandic OC infinitives is a default case rests *entirely* on the alleged markedness of NOM in (12). B&H do not offer any independent support for this claim, which plays a key role in their analysis (see section 4). Indeed, the first quote above suggests that B&H simply equate markedness and "defaultness".

3.2 The Icelandic facts

Neither the claim that embedded NOM in OC is a marked option, nor the claim that it is default case, finds support in the extensive literature on Icelandic. There is much evidence against both claims, which we review below. We note in passing, though, that

even if the assumption of markedness were granted, the link to the assumption of defaultness is at best unclear. Default values of morphological features are simply unmarked values that are inserted in the absence of more specific spellout instructions. To our knowledge, even within B&H's approach, no markedness in judgment is attached to such choices. It is thus unclear why nominative PRO in (12) should be any more marked than, say, 3SG default agreement on the main predicate when no nominative DP occurs (as in B&H's example (3)).¹¹

In any event, there is ample evidence that nominative PRO is not marked/marginal in Icelandic; in fact, it is often the preferred option, sometimes the only one. B&H have apparently erred in this respect in using only the SP *einn* 'alone' as a case detector in the embedded infinitive. It is well established in the literature, however, that main predicates (MPs) and SPs display different agreement patterns. Importantly, predicate nominals and passive participles *qua* MPs obviously falsify the "markedness" claim, while SPs are simply uninformative as to the "defaultness" claim.

Regarding the markedness claim, Andrews (1976:176) already noted that "... a predicate adjective modifying a nominative zero subject can appear either in the nominative or in the case of the controller" (see also Andrews 1982:450). He was also explicit about the preference: "Why is the nominative always possible, rather than some other case, such as the accusative?" (Andrews 1982:451). Indeed, although B&H (fn. 8) cite Andrews (1982) as a precursor to their default NOM proposal, they fail to mention that Andrews raised this idea to accommodate the *predominance* of NOM in OC infinitives, not its marginality. Indeed, what seemed to Andrews to be a variable,

“squishy” phenomenon (which he ultimately relegated to “performance”), was case matching with the controller, not case mismatch.

More to the point, the preference for NOM over case transmission is especially clear with two types of embedded MPs - predicate nominals and passive participles (see Thráinsson 1979:362, and Andrews 1982:27, citing Friðjónsson 1977). Sigurðsson (2002:712) too observes that “as a matter of fact, case-copying down into the infinitive is marked or questionable for many speakers and even out for some”. The following examples are reported to allow only NOM in the infinitive (Thráinsson 1979:327,362).¹²

(13) a. Hann kenndi honum að vera góður skákmaður/*góðum skákmanni.

He taught him.DAT to be good chessplayer.NOM/*DAT

‘He taught him to be a good chessplayer.’

b. Ég bað Maríu að vera tekin/*tekna af lögreglunni. (=9b)

I asked Mary.ACC to be taken.F.SG.NOM/*ACC by the.police

‘I asked Mary to be taken by the police.’

As previous scholars have observed, the phenomenon of case transmission in Icelandic exhibits considerable inter-speaker variation (similarly in Russian, see Landau 2007b for extensive documentation). Nonetheless, the empirical picture is far from chaotic, and solid generalizations can be and have been formulated. One such generalization is the availability of NOM in all OC infinitives where quirky case is not assigned. Any analysis of the facts must account for this generalization; an analysis predicated on the false premise that NOM is a marginal option in OC contexts is bound to be off the mark.

Although B&H are wrong in claiming that NOM is marked in OC infinitives, one

may still wonder whether they could be right in claiming that it is a default case. After all, as we have noted above, the two claims are independent. The answer is again no: there is no reason to believe that the NOM on the null subject of infinitives—PRO, in our view—is anything other than standard structural case.

Example (13b) above serves to illustrate the point. The embedded passive participle *tekin* in this example obligatorily shows agreement (in number, gender and case) with the (null) subject of the infinitival. The default form *tekið* would be obligatory when the subject does not have structural case. In making this argument, Sigurðsson 1991:335-336) presents the following minimal pair.

- (14) a. Strákarnir vonast til að verða aðstoðaðir/*aðstoðað.
the.boys.NOM hoped to be aided.PL.NOM /*DFLT
‘The boys hope to be aided.’
- b. Strákarnir vonast til að verða hjálpað/*hjálpaðir/*hjálpuðum.
the.boys.NOM hoped to be helped.DFLT/*PL.NOM/*PL.DAT
‘The boys hope to be helped.’

In both sentences, the controller in the matrix clause is NOM. The differences lie in the embedded infinitives. Where the infinitive predicate is a quirky case assigner (‘be helped’ assigns DAT), the participle is obligatorily in the default, non-agreeing form (14b). Where the infinitive is a predicate whose corresponding finite subject would be nominative, the agreeing, nominative participle is obligatory, and the default form is excluded (14a). As regards MP agreement, then, NOM on PRO patterns with structural case (obligatory agreement) and against quirky/inherent case (agreement impossible).

In fact, as Sigurðsson has repeatedly stressed, with respect to agreement on MPs, the NOM on PRO behaves unlike the other known instances of default NOM in Icelandic, namely, dislocated and vocative DPs. As (15) (from Sigurðsson 1991:338, paraphrase added) shows, true default NOM DPs fail to trigger agreement, even on participles.

- (15) Strákurinn, við hann var ekki **dansað**/*dansaður.
 the.boy.NOM with him.ACC was not danced.DFLT/*SG.M.NOM
 ‘The boy, nobody danced with him.’

The participial agreement facts are particularly relevant, since, as B&H note “[o]vert morphological agreement on ... passive participles (Case, number, gender) *can only take place with elements bearing structural Case*” (p.593, emphasis added –JDB/IL). Since the passive participle in control complements obligatorily agrees with the null subject of the infinitive as in (13b), it follows—on B&H’s own assumptions—that this NOM is structural, not default case.

The point here is neither subtle, nor new. The facts are discussed in ATS, and this argument against default NOM in control complements is presented in detail by Sigurðsson 1991). Although they cite these works, B&H systematically neglect to mention the behavior of MPs (adjectives, nouns or past participles) in infinitives, and their characterization of Sigurðsson 1991) paper (on p.593) selectively mentions only his examples of agreement with FQ/SP. A major theme in Sigurðsson (1991), however, as in later work Sigurðsson (1992, 1996, 2002, 2003, 2004) is precisely this distinction: While primary agreement (on MPs) is triggered only by structurally case-marked subjects, secondary agreement (on SPs/FQs) is case-insensitive, applying also with inherent/quirky

case-marked arguments.

Omission of this distinction, in effect, renders almost all of B&H's examples irrelevant to the question of whether NOM on PRO is structural or default. The reason is that their examples, as noted above, only use FQs/SPs as case-detectors, never MPs. Since SPs/FQs agree with *any* type of antecedent, they cannot be used to choose between the structural and the default analyses of the embedded NOM. Examples with embedded MPs, however, such as (13a,b) and (14a), can; and the fact that they manifest full agreement, in contrast to (14b) and (15), vindicates the standard structural NOM analysis and refutes B&H's default NOM proposal.¹³

We note here that precisely the same argument (for structural case on PRO), using similar case concord paradigms, has been made for Russian (see Comrie 1974, Greenberg 1983, 1989, Neidle 1988, Franks 1998, Babby 1998, Babby and Franks 1998, Landau 2007a). Interestingly, Russian provides straightforward evidence that the case of PRO is not default case: While the default case of DPs in Russian is NOM, the case on PRO is DAT. Thus, a key idea in the MTC – that PRO may never bear a locally assigned structural case – is consistently disconfirmed in languages that provide the appropriate testing ground for it (see Landau 2007a for further data and discussion).

4 The lexicalization problem

Why is it so important for the MTC to banish multiple structural cases in OC chains? Curiously, the question is not addressed in B&H's recent writings. A close reading in the original formulations of the MTC, however, reveals the tacit assumptions that are

endangered once structural case is granted to PRO (or the controller's trace). These assumptions are needed to guarantee that controlled subjects are unpronounced; in other words, they bear on the fundamental problem of control theory - how to derive the distribution of PRO. In this section we show that the irreducible existence of multiple cases in OC chains robs the MTC of its account of the null status of PRO. The result is that the MTC licenses and overgenerates lexical subjects in OC infinitives. We consider three environments where this happens: (i) PRO gets structural NOM, (ii) PRO gets quirky case, (iii) PRO gets structural ACC (via transmission from the controller).

Hornstein (1999:82) explains the fact that the understood subject of control infinitives is unpronounced as follows: "... the null phonetic status of PRO is explained in whatever way we explain the null phonetic status of NP-trace. One natural assumption is that Case is required for phonetic "visibility". Both NP-trace and PRO will therefore fail to meet the requirements for having phonetic content". Hornstein (2003:fn.29) reiterates this parallelism as the source of the nullness of PRO, deriving it, ultimately, from Nunes' (1995) theory of copy deletion. B&H express their continued reliance on Nunes as well (p. 600). In fact, Nunes' theory is really a sophisticated expansion of the Case Theory. It predicts that a single copy will be spelled out in an A-chain, and this copy will occur in the case position (normally, the topmost copy).¹⁴

On these assumptions, the facts established in section 3 are lethal to the MTC, for these facts show quite clearly that PRO bears structural case in Icelandic. Thus, in normal circumstances, where no quirky case is involved, the OC chain is structurally case-marked twice – both at the tail (PRO) and at the head (the controller DP). It is therefore

expected that the tail position should be able to host a phonetically visible DP. This DP would get its θ -role and structural NOM downstairs, while the matrix DP would get its own θ -role and case in the matrix clause.

- (16) a. *Jón vonast til [hann/Eiríkur að verða ráðinn]
 Jon.NOM hopes he/Eric.NOM to be hired.M.SG.NOM
 ‘Jon hopes for him(self)/Eric to be hired.’ (Jónsson 1996,162)
- b. Ég bað Maríu [að (*hún/*Ásta) fara ein þangað]
 I asked Maria.ACC to she/Asta.NOM go alone.F.SG.NOM there
 ‘I asked Maria (for her/Asta) to go there alone.’ (after Thráinsson 1979:301)

Such sentences are ungrammatical in Icelandic or, for that matter, most languages that have been investigated (see Szabolcsi 2007 for apparent examples of overt infinitival subjects). Yet the MTC inevitably overgenerates them, particularly in Icelandic, given its commitment to the role of case in copy pronunciation and given the empirical finding that Icelandic PRO bears structural case. This is what we call the *lexicalization* problem: How to block the lexicalization of PRO?

It is important to understand that although the MTC can accommodate a lexical PRO (i.e., overt subject of an infinitive) as such, it cannot accommodate *both* a lexical PRO and a lexical “controller”. Thus, the backward control construction has been taken as evidence that the MTC is consistent with lexicalization of PRO (Polinsky and Potsdam 2002, 2003). However, the problem of *double* lexicalization, of both controller and PRO, arises with equal force under the movement analysis of backward control (see Landau 2007b for relevant comments). The question for the MTC boils down to this: Why must

there be a single chain at all, as opposed to two independent chains? What rules out (16a,b)?¹⁵

It should be recognized how fundamental to the MTC the lexicalization problem is. For *any* theory of control, the distribution of PRO is the core problem. From its inception, the ostensibly elegant solution in terms of case and copy pronunciation has practically been the flagship of the MTC. But the “elegant” solution, it now transpires, rests on a false premise – that PRO is caseless. Robbed of that premise, the MTC can no longer explain the fundamental fact of OC. The flagship has sunk.¹⁶

The lexicalization problem arises with equal force in the two other control environments treated by B&H: quirky PRO and accusative PRO (via transmission). Unsurprisingly, neither can be lexicalized.

- (17) a. Ég vonast til [að (*mér/*Jóni) verða hjálpað].
I.NOM hope for to me/Jon.DAT be helped
‘I hoped (for myself/Jon) to be helped.’ (after Zaenen et al 1985: 109)
- b. Ég bað Maríu [að (*hana/*Bjarna) fara þangað]
I asked Maria.ACC to her/Bjarni.ACC go there
‘I asked Maria (for her/Bjarni) to go there.’ (after Thráinsson 1979:301)

Concerning (17a), the problem is that B&H apparently take quirky case to be sufficient for the purposes of licensing a lexical DP.¹⁷ Having both case and a θ -role, then, the DP in the lower clause in (17a) would have no intrinsic need to move further, and a second DP could undergo external merge in the matrix clause, where it would certainly receive a θ -role and structural case. If, on the other hand, quirky case does not suffice for licensing an

overt DP (as in classic GB), then the case-preservation problem reappears in the A-movement contexts, as discussed in section 2.1. There are only two choices here. Both fail, for reasons that were well documented in the literature prior to B&H, and which B&H fail to address.

Finally, (17b) is also overgenerated, given the mechanism of multiple Agree invoked by B&H to derive object control (see (10b)). Instead of moving the embedded DP to the matrix VP, one can externally merge a new DP to receive the matrix θ -role. Both DPs would check their case against the matrix light v (via multiple Agree). As far as we can see, nothing in B&H's system rules out this derivation.

To summarize, we have identified a fundamental problem for the MTC, arising from the encounter of its case-based analysis of lexicalization with the facts of Icelandic. In three distinct environments (nominative, quirky, and accusative PRO) the MTC wrongly licenses lexical subjects in OC infinitives.¹⁸ One must conclude that the MTC has no satisfactory account of the basic issue in control theory – how to derive the distribution of PRO. Evidently, a viable theory of OC must dissociate the distribution of PRO from case. Theories with this property exist (Sigurðsson 1991, Carnie and Harley 1997, Tallerman 1998, San-Martin 2004, Landau 2004, 2006), but they are all fundamentally incompatible with MTC's core assumptions.¹⁹

5 Case transmission

So far we have been concerned with cases where the controller bears structural (NOM or ACC) case, and optionally transmits it to PRO. We have said nothing about the behavior

of controllers with inherent/quirky (I/Q-) case. There are three cases to consider: A quirky controller occurs with a nominative PRO, or with a quirky PRO, which could either be assigned case locally or by transmission. The first situation corresponds to B&H's "default NOM", a notion we criticized in section 3. The second situation, in which PRO receives a quirky case independent of the quirky case of the controller, is also mentioned in B&H (e.g., their (9), (20)). As B&H identify I/Q-case with θ -role (they often use the expression " θ -role/quirky Case"), such cases for them reflect nothing more than the simple fact that OC chains are assigned two θ -roles.

What about the last possibility, where the controller transmits its quirky case to PRO? According to B&H – such cases do not exist. They claim that "Icelandic speakers... strongly reject remote Quirky matching" (p. 597), this being predicted by the MTC, as "inherent (in our case, Quirky) Case cannot be assigned long-distance" (p. 602). They further cite two examples (their (19)) where they report Q-case transmission to be ungrammatical.

In contrast, though, all major studies of case transmission in Icelandic, starting with the earliest, cite grammatical examples where an I/Q-case assigned locally to the matrix controller is inherited in the infinitive (alternating with NOM). Such cases are found both with quirky subject controllers (18) and with dative object controllers (19), and the embedded case-bearing element may be either an adjectival MP or an SP (Andrews 1976:(31)-(33); Thráinsson 1979:299, (47); 301, (50); 363, (41); Andrews 1982:(38), (40); Sigurðsson 2002:(83), (84), (86); the following is a sample from these sources).

(18) a. Mig langar að fara í kaupstaðinn einn/einan.

I.ACC long to go to town alone.NOM/ACC

‘I long to go to town alone.’

b. Henni fannst gaman að verða fyrst/fyrstri.

her.DAT found fun to be first.NOM/DAT

‘She found it fun to be number one.’

(19) a. María leyfði þeim að vera óþægir/óþægum.

Mary allowed them.DAT to be naughty.NOM/DAT

‘Mary allowed them to be naughty.’

b. Ég skipaði henni að fara ein/einni þangað.

I ordered her.DAT to go alone.NOM/DAT there

‘I ordered her not to go there alone.’

While authors do note that many speakers prefer NOM in these contexts, no study (prior to B&H) has indicated that I/Q-case transmission is ungrammatical in Icelandic. Similar facts obtain in Ancient Greek and Latin (Andrews 1971, Quicoli 1982, Cecchetto & Oniga 2004). It is puzzling to us that B&H could have disregarded this mass of evidence. Consider now the implications of I/Q-case transmission for the MTC. At the very least, the phenomenon demonstrates that I/Q-case cannot be *identical* (equivalent, reducible, etc.) to a θ -role. Whereas the matrix I/Q-case can be transmitted to PRO, the matrix θ -role cannot. Presumably, B&H prohibited long-distance assignment of I/Q-case since long-distance assignment of θ -roles is unattested. However, facts such as (18)-(19) break this alleged causal link.²⁰

A second, less apparent but more significant implication concerns the status of the

embedded NOM. Recall that when the controller gets structural ACC, case transmission, if possible at all, alternates with embedded NOM (see (8b)). B&H take the latter to be a marked option (against all previous descriptions). Notably, under a quirky or inherently case-marked controller, the embedded NOM is *not* marked, even on B&H's own description (see their (8), (19b), and (i) in fn. 6). Why this contrast? B&H do not offer any explicit explanation, but we can extrapolate the following from their assumptions: NOM is marked under an ACC controller precisely because ACC transmission is available as a first option for valuing the case feature of the embedded FQ/SP (via multiple Agree); while NOM is unmarked under a quirky/inherent controller since it is the only option, transmission of quirky/inherent case being excluded.

Unfortunately for this reasoning, the latter assumption is false, as (18)-(19) demonstrate. Thus, case transmission does not distinguish structural from non-structural cases. Therefore, on B&H's assumptions, default NOM should be secondary to a transmitted DAT just as it is to a transmitted ACC. The fact that it "wins out" in the first case but not in the second case remains an unexplained asymmetry in the MTC.

At this point B&H could presumably concede that NOM on (non-quirky) PRO is not "marked". These, we have argued, are indeed the true facts in Icelandic. The problem is that acknowledging the facts would force B&H into recognizing that NOM is standardly available to nonfinite subjects, just as it is to finite subjects. Herein lies the lexicalization problem which haunts the MTC (see section 4.1).²¹

6. Conclusion

In one sense, the case agreement facts of Icelandic (and Russian) constitute just one

category of unanswered empirical challenge to the MTC. Many others, not discussed in this reply, still persist (e.g., overgeneration in sideward movement, lack of account for partial control, violations of Visser’s generalization; see Landau 2007a for extensive discussion).

In another sense, though, the failures of the MTC discussed in this reply deserve a dedicated critique. The basic contrast between raising and control in Icelandic – case preservation in the former, case independence in the latter – has been understood, from the outset, as attesting to the fundamentally different nature of the two processes. Andrews, Thráinsson and Sigurðsson — although working in different frameworks — clearly perceived and articulated this point. The argument has been a mainstay of the discussion for 30 years now and is to be counted among the important results of the field. We hope that by reviewing the literature and collecting together the relevant examples, we have helped to clarify just why this evidence is so compelling.

To be sure, challenges to established results are welcome. As we have demonstrated, though, B&H’s article does not provide a challenge to these conclusions, inasmuch as they do not address the main empirical arguments for the existence of PRO. They offer a “case overwriting” mechanism that appears to simply fail in raising (or any other A-movement) contexts. Likewise, their discussion of NOM case in control infinitives is inconsistent with the facts as reported in all previous studies of the topic. This NOM exhibits the hallmark of standard structural case – it triggers full agreement on MPs. Not only is it not marked (as B&H claim) – it is often the only option available. B&H’s exclusive focus on the case marking of SPs/FQs, as opposed to MPs, is a crucial

oversight; it renders their data irrelevant to their “defaultness” claim.

The classic literature on Icelandic drew one firm conclusion from the fact that PRO bears case: Case cannot distinguish the distribution of lexical DPs from that of PRO. The same conclusion has been reached by scholars studying parallel phenomena in Russian. As far as we can see, this conclusion is inescapable. It is a striking feature of the MTC, that for all its radical rhetoric of breaking with unsubstantiated assumptions of the past, it is intimately predicated on the GB-style Case Filter (reformulated as a theory of the PF interface, but essentially non-distinct in predictions). Evidence that the subject of OC infinitives is case marked like any other DP, therefore, is lethal to the MTC, as there is no longer any reason why this subject could not be an overt DP, and hence uncontrolled. B&H appear to acknowledge this when they state: “[s]ince we have shown that there is no evidence that multiple structural Cases are assigned to a chain, the argument against a movement theory of control dissolves” (p. 598). Such a claim clearly implies that multiple structural cases—which we have shown to exist—constitute a solid argument against the MTC. Since the key offering of the MTC was a reduction of the condition that PRO be silent to the fact that traces are (typically) unpronounced, the lexicalization problem lies at the very heart of the MTC.

With reference to the Icelandic case facts, and their import for theories of control, B&H note that “it pays to look before one leaps” (p.592). On this point, we fully concur.

References

Andrews, Avery D. 1971. Case agreement of predicate modifiers in Ancient Greek.

- Linguistic Inquiry* 2:127-151.
- Andrews, Avery D. 1976. The VP-Complement Analysis in Modern Icelandic. In *Proceedings of the 6th Meeting of the North Eastern Linguistic Society. Reprinted as Andrews (1990), in Syntax and Semantics 24: Modern Icelandic Syntax*, ed. by Joan Maling and Annie Zaenen, 165-185: Academic Press Inc.
- Andrews, Avery D. 1982. The Representation of Case in Modern Icelandic. In *The Mental Representation of Grammatical Relations*, ed. by Joan Bresnan, 424-503. Cambridge, MA: MIT Press.
- Andrews, Avery D. 1990. Case Structures and Control in Modern Icelandic. In *Syntax and Semantics 24: Modern Icelandic Syntax*, ed. by Joan Maling and Annie Zaenen, 187-234. San Diego, CA: Academic Press Inc.
- Babby, Leonard H. 1998. Subject Control as Direct Predication: Evidence from Russian. In *Proceedings of the 6th Meeting of Formal Approaches to Slavic Linguistics*, ed. by Željko Bošković, Steven Franks and William Snyder, 17-37. Michigan University, Ann Arbor: Michigan Slavic Publications.
- Babby, Leonard H., and Franks, Steven. 1998. The Syntax of Adverbial Participles in Russian Revisited. *Slavic and East European Journal* 42:483-515.
- Boeckx, Cedric. 2003. Case matters and Minimalist concerns. In *Harvard Working Papers in Linguistics 8*, eds. Cedric Boeckx, Claire Bowerman and Jay H. Jasanoff, 159-197. Cambridge MA: Harvard University, Department of Linguistics.
- Boeckx, Cedric, and Hornstein, Norbert. 2004. Movement Under Control. *Linguistic Inquiry* 35:431-452.

- Boeckx, Cedric, and Norbert Hornstein. 2006a. Control in Icelandic and theories of Control. *Linguistic Inquiry* 37:591-606.
- Boeckx, Cedric, and Norbert Hornstein. 2006b. The virtues of Control as movement. *Syntax* 9:118-130.
- Carnie, Andrew, and Harley, Heidi. 1997. PRO, the EPP and Nominative Case: Evidence from Irish Infinitivals. *UPenn Working papers in Linguistics* 4, 71-86.
- Comrie, Bernard. 1974. The Second Dative: A Transformational Approach. In *Slavic Transformational Syntax, Michigan Slavic Materials No.10*, ed. by Richard Brecht and Catherine Chvany, 123-150. Ann Arbor: Michigan University Press.
- Franks, Steven. 1998. Parameters of Slavic Morphosyntax Revisited: A Minimalist Retrospective. In *Proceedings of the 6th Meeting of Formal Approaches to Slavic Linguistics*, ed. by Željko Bošković, Steven Franks and William Snyder, 134-165. Michigan University, Ann Arbor: Michigan Slavic Publications.
- Greenberg, Gerald R. 1983. Another Look at the Second Dative and Related Subjects. *Linguistic Analysis* 11:167-218.
- Greenberg, Gerald R. 1989. Dative Subjects and the Second Dative Within Slavic. *Digest for Philology and Linguistics* 32, 45-57.
- Hornstein, Norbert. 1999. Movement and control. *Linguistic Inquiry* 30:69-96.
- Hornstein, Norbert. 2003. On control. In *Minimalist Syntax*, ed. by Randall Hendrick, 6-81. Oxford: Blackwell.
- Jónsson, Jóhannes Gísli. 1996. Clausal architecture and case in Icelandic, Doctoral dissertation, University of Massachusetts, Amherst.

- Landau, Idan. 2000. *Elements of Control: Structure and Meaning in Infinitival Constructions*. Dordrecht: Kluwer Academic Publishers.
- Landau, Idan. 2003. Movement Out of Control. *Linguistic Inquiry* 34:471–498.
- Landau, Idan. 2004. The Scale of Finiteness and the Calculus of Control. *Natural Language and Linguistic Theory* 22:811-877.
- Landau, Idan. 2006. Severing the Distribution of PRO from Case. *Syntax* 9:153-170.
- Landau, Idan. 2007a. Movement-resistant aspects of Control. In *New Horizons in the Analysis of Control and Raising*, ed. by William Davies and Stanley Dubinsky, 293-325. Dordrecht: Springer.
- Landau, Idan. 2007b. Two routes of Control: Evidence from case transmission in Russian. Ms., Ben Gurion University.
- Marantz, Alec. 1991. Case and Licensing. In *Proceedings of Eastern States Conference on Linguistics (ESCOL) 8*, ed. by German Westphal, Benjamin Ao and Hee-Rahk Chae, 234-251. Ithaca, NY: CLC Publications.
- McFadden, Thomas. 2007. Structural case, locality and cyclicity. Ms., Universität Stuttgart.
- Neidle, Carol Jan. 1988. *The Role of Case in Russian Syntax*. Dordrecht: Kluwer Academic Publishers.
- Nunes, Jairo. 1995. The Copy Theory of Movement and Linearization of Chains in the Minimalist Program. Doctoral dissertation, University of Maryland, College Park.
- Polinsky, Maria, and Potsdam, Eric. 2002. Backward Control. *Linguistic Inquiry* 33:245-282.

- San-Martin, Itziar. 2004. On Subordination and the Distribution of PRO. Doctoral dissertation, University of Maryland, College Park.
- Sigurðsson, Halldór Ármann. 1989. Verbal Syntax and Case in Icelandic. Doctoral dissertation, University of Lund.
- Sigurðsson, Halldór Ármann. 1991. Icelandic Case-Marked PRO and the Licensing of Lexical Arguments. *Natural Language and Linguistic Theory* 9:327–363.
- Sigurðsson, Halldór Ármann. 2002. To Be an Oblique Subject: Russian vs. Icelandic. *Natural Language and Linguistic Theory* 20:691-724.
- Sigurðsson, Halldór Ármann. 2003. Case: Abstract vs. Morphological. In *New Perspectives on Case Theory*, ed. by Ellen Brandner and Heike Zinsmeister, 223-268. Stanford: CSLI Publications.
- Sigurðsson, Halldór Ármann. 2004. Icelandic Non-Nominative Subjects: Facts and Implications. In *Non-nominative Subjects*, ed. by Peri Bhaskararao and Karumuri Venkata Subbarao, 137-159. Amsterdam & Philadelphia: John Benjamins.
- Sigurðsson, Halldór Ármann. 2007. The Case of PRO. Ms., Lund University.
- Szabolcsi, Anna. 2007. Hidden in plain sight: Overt subjects in infinitival control and raising complements Ms., NYU.
- Tallerman, Maggie. 1998. The Uniform Case-licensing of Subjects in Welsh. *The Linguistic Review* 15:69-133.
- Thráinsson, Höskuldur. 1979. *On Complementation in Icelandic*. New York: Garland Press.
- Wurmbrand, Susi. 2006. Licensing Case. *Journal of Germanic Linguistics* 18:175-236.

Zaenen, Annie, Maling, Joan, and Thráinsson, Höskuldur. 1985. Case and Grammatical Functions: The Icelandic Passive. *Natural Language and Linguistic Theory* 3:441-483.

(Bobaljik)

Department of Linguistics

University of Connecticut

337 Mansfield Rd., U-1145

Storrs-Mansfield, CT 06269-1145

jonathan.bobaljik@uconn.edu

(Landau)

Dept. of Foreign Literatures & Linguistics

Ben Gurion University

P. O. Box 653

Beer Sheva 84105

ISRAEL

idanl@bgu.ac.il

* For discussion of the material presented here, we thank Thórhallur Eythórsson, Heidi Harley, Alec Marantz, Halldór Ármann Sigurðsson, Höskuldur Thráinsson and Susi Wurmbrand, as well as two reviewers. The second author was supported by the Israeli Science Foundation (grant No. 27/05).

¹ As we were writing this article, we learned of Sigurðsson (2007), an independent, convergent reply to B&H. We thank Halldór Sigurðsson for making available to us a

draft of his reply. We have not incorporated the new data in Sigurðsson (2007) as our main argument is that B&H's proposal cannot adequately deal with data that was already available in the published literature.

² The following abbreviations are used in this article: MTC (Movement Theory of Control); OC (Obligatory Control); NOC (Non-Obligatory Control); ECM (Exceptional Case Marking); NOM (nominative); ACC (accusative); DAT (dative); GEN (genitive); MP (main predicate); SP (secondary predicate); FQ (floating quantifier).

³ While we are not aware of any questions regarding the status of the examples reported here (except where specifically noted below), we do note that Sigurðsson (1989:96, n.31) and Andrews (1990) report some variation in case preservation effects with some other raising predicates. So far as we know, the claim that the judgments of interest systematically reflect an A-movement versus control distinction remains unchallenged.

⁴ All examples are taken from the literature, as noted. A few examples have been slightly modified from the source, for example, by substituting a DP of a different gender so that case is shown unambiguously, or by explicitly presenting ungrammatical forms that are implied, but not given in the sources. In the few cases we have made such changes, we have indicated the example as 'after' the source. We thank Höskuldur Thráinsson for his patient help in checking all modifications.

⁵ That the quirky DPs are indeed subjects and objects is exceptionally well-established in an extensive literature beginning with Andrews (1976) and Thráinsson

1979); see especially Zaenen, Maling and Thráinsson 1985), and Sigurðsson (1989). The arguments do not depend on correlating surface position and grammatical function.

⁶ B&H indicate such examples to be acceptable, while Thráinsson finds them to be semantically anomalous (we indicate this with #) on the grounds that object control verbs select agentive complements, but quirky subjects are never agentive. The narrow point to be made here is that, to the extent that speakers accept object control of quirk-case assigning infinitives, they manifest obligatory case independence. In addition to adding the “#”, we have modified B&H's example by using a controller DP that overtly manifests the ACC/DAT distinction.

⁷ Nothing hinges on analyzing this class of dependencies as literal movement, as opposed to Agree. There is evidence that Icelandic lacks the classic EPP (construed as obligatory filling of Spec,TP; see Wurmbrand 2006), but the issues here do not distinguish between quirky and structural DPs. Note that Landau (2000) analyzes OC as an Agree dependency, but crucially, one involving two distinct A-chains. A matrix v/T forms an Agree relation both with the controller DP and PRO (or the infinitival C). Since the controller DP is never part of the embedded infinitive, it is never c-commanded by the embedded predicate and cannot receive case from it. Thus, case preservation in OC is ruled out on principled grounds in this theory.

⁸ B&H state (their fn. 3): “Landau also observes that in contrast to control, raising disallows situations where a single NP appears to receive two Cases. We return to this difference between raising and control in section 3.” In point of fact, they do not discuss any of the raising examples presented by Landau 2003: 492, culled from the earlier

literature), nor any other examples which show the case-preservation effects discussed above. The sole example of a raising versus control difference they discuss in their section 3 concerns a different point, namely the distribution of structural (nominative) case in the infinitival. We return to these example types below.

⁹ As B&H do not address this point, we must cover both options. Note that B&H's derivations (29), p. 599 and (33), p. 600, and associated text, are suggestive of a Last Resort view, whereby quirky case is sufficient to satisfy the Case Filter. This would be an unsigned, but important, departure from assumptions they make in work that they rely on in B&H, notably, the Inverse Case Filter and the assumption that ECM verbs like *believe* obligatorily assign accusative (see Boeckx 2003:11, Boeckx and Hornstein 2004:436). Assuming that quirky case satisfies the Case Filter will create an even more serious problem regarding the lexicalization of PRO, to which we return in section 4.

¹⁰ In order to avoid potential terminological confusion, we keep to the term 'structural' NOM for the NOM that is associated with the subject of a finite clause. B&H's key claim is that the NOM in infinitives (their 'default' NOM) is distinct from that NOM. Our point is that this dichotomy is false: the two are not distinct by any criteria. A separate question is whether 'structural NOM' is itself (always) a form of default or unmarked case (as in Marantz 1991, McFadden 2007). This latter use of the term 'default' is not the one used by B&H, and not the one we dispute.

¹¹ Embedded "default NOM" case is apparently not marked when the controller bears inherent/quirky case (see B&H's fn. 6 and (19b)). B&H do not offer any explicit

account of this contrast. In section 5 we return to this question and show that the most natural account available under B&H's assumptions is empirically untenable.

¹² Presumably, B&H would not expect DAT in (13a), given their claim that "Icelandic speakers... strongly resist remote quirky Case matching" (p. 507). This claim, however, is false; in section 5 we show that transmission of inherent/quirky DAT/ACC is not generally ruled out. Its failure in (13a) is due to the relative inherent resistance of predicate nominals to case transmission, as evidenced by the parallel failure of ACC transmission in (13b).

¹³ In fact, B&H do give two examples in which the embedded MP is an adjective (their (16), with an embedded small clause, and (i) in their fn.6). In both, the adjective is unambiguously in an agreeing, nominative form and not in the default form that would be required under their analysis (B&H do not gloss agreement on the adjectives). The agreement patterns in these examples provide further evidence that there is a structural NOM DP in the infinitive, controlling agreement on the adjective, as noted in the source literature.

¹⁴ Nunes assumes that: (i) Case must be checked locally (in a Spec-head relation); (ii) each copy in a chain carries its own uninterpretable Case feature; (iii) PF-deletion only eliminates the "offending" Case features of the deleted copy. These assumptions conspire to ensure that PF-deletion of low copies in an A-chain will always be more economical than PF-deletion of the highest copy, since the latter's Case is necessarily checked off by the attracting head, whereas the former's Case, if not PF-deleted, would

require an extra deletion operation in the syntax. Thus, high pronunciation is the default option in A-chains.

¹⁵ Incidentally, we note that even if NOM in the infinitive is default case, it is not clear that B&H's assumptions suffice to prevent PRO from being lexicalized with that case. B&H assume that default NOM is assigned directly to the embedded SP (their derivations (33) and (36)) and not to the controller's chain. The question is what prevents it from being assigned to the embedded subject.

¹⁶ A reviewer suggests that Nunes's theory would exclude double lexicalization due to the LCA-based requirement that each chain be lexicalized exactly once. Our point here is that recognizing structural NOM in the lower position in fact obviates the need for an OC chain at all under B&H's assumptions. The matrix and embedded DPs each have a θ -role and structural case, so nothing excludes two chains and thus two lexicalized positions, at best related by binding. Recall that the MTC purports to derive the obligatory coreference in OC from movement—the assumption that there is necessarily only one DP (itself reduced to case requirements). Thus, once structural NOM is recognized in the embedded clause (as it must be), the MTC loses both its account of the nullness of OC PRO and of its necessary anaphoricity, the two central problems for control theory.

¹⁷ For example, the quirky DP in their (33) undergoes no feature checking with the finite T, other than checking of an EPP feature.

¹⁸ We have no doubt that technical solutions can be devised. The issue is, and always has been as regards the empirical problems facing the MTC, what insights are lost

or gained by the introduction of such solutions. In the case at hand, it seems that the MTC has missed a crucial insight: The null status of PRO is not a side effect of certain parochial assumptions about Case, but rather a fundamental, crosslinguistically valid property of OC.

¹⁹ B&H do seem to recognize the problem for a case-based account of PRO, as in a separate paper they appear to retreat from their earlier position, invoking a notion of “maximal checking” in place of case (Boeckx and Hornstein 2006b:124). However, this appears to be a notational variant of the GB notion of abstract Case. At any rate, B&H themselves reveal how crucial to the MTC is denying PRO of structural case when they state: “[s]ince we have shown that there is no evidence that multiple structural Cases are assigned to a chain, the argument against a movement theory of control dissolves” (B&H 2006a:598). Thus, with respect to the Icelandic data in particular, the majority of the discussion in B&H is about case—to the extent their account is translatable into “maximal checking” the core problems remain.

²⁰ A deeper puzzle for the MTC lurks underneath: *Why* can θ -roles not be assigned long-distance? Given (i) MTC’s reduction of θ -assignment to feature-checking, and (ii) the operation Agree, which allows for long-distance feature-checking, it is no longer clear what blocks this option. A language choosing this option would allow controller DPs to scopally reconstruct into the infinitive – so far an unattested phenomenon.

Notice that backward control (Polinsky & Potsdam 2002, 2003) is not an instance of θ -checking under Agree (without Merge), but rather of θ -checking under movement plus low copy pronunciation (so called LF-movement). Thus, as Polinsky &

Potsdam show, the covert controller may bind matrix anaphors. Genuine long-distance θ -checking, in contrast, should not endow an embedded DP with matrix scope (cf. the frozen scope of the associate in *there*-constructions).

For all we know, natural languages always implement θ -assignment in strictly local configurations. Standard semantic theories provide a principled explanation for this design feature (argument saturation being accomplished via binary operations defined for sisters only – e.g., Function Application). Part of the obscurity surrounding the predictions and consequences of multiple θ -roles per chain in the MTC derives from the absence of an attendant compositional semantics.

²¹ Although it is not our purpose here to provide a full account of case transmission, it is worth noting that such an account is readily available within non-movement approaches to OC (see Landau 2007b for an analysis that extends to many other languages beyond Icelandic).