

Fact and Fiction in Icelandic Control*

Jonathan David Bobaljik and Idan Landau

University of Connecticut and Ben Gurion University

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 falls decidedly short of the mark. 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. B&H systematically fail to acknowledge, let alone address, the extensive array of problematic data in the existing literature, and build their analysis on claims that are at odds with, and important cases flatly contradictory to, the facts reported in the literature they cite.

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, 2006a). 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.

* For discussion of the material presented here, we thank Alec Marantz, Halldór Ármann Sigurðsson, Höskuldur Thráinsson and Susi Wurmbrand.

Boeckx & Hornstein (2006b) (henceforth, 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 exceptionally 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, as established in this literature. 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

We begin in section 2 with a review of 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. Logically possible extensions of B&H’s assumptions are shown to make incorrect predictions. Furthermore, a novel proposal in B&H (the clausemate condition on separate goals of multiple Agree), intended to distinguish object control from ECM, fails to do so in any general way. 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.

The implications of this conclusion are discussed in section 4. We show that B&H are committed to a case-based theory of DP lexicalization (contrary claims notwithstanding). The well-established fact that PRO in Icelandic bears structural

¹ As we were writing this article, we learned of Sigurðsson (2007), an independent reply to Boeckx & Hornstein (2006b). We thank Halldór Sigurðsson for making available to us a draft of his reply. The present reply, however, does not incorporate the new data in Sigurðsson (2007): our main argument is that Boeckx & Hornstein’s proposal cannot adequately deal with data that was available already in the 1970s.

case, therefore, allows, on B&H’s assumptions, overgeneration of lexical subjects in OC infinitives (e.g., **John refused [Bill to leave the room]*). Given other ingredients of the MTC, this fatal consequence is replicated when PRO inherits its case from the controller, or gets a local quirky case. 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. 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. We reproduce here Andrews’s (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.²

- | | | | | |
|-----|----|--------------------------|----------|-----------------------|
| (1) | a. | Strákarnir | voru | kitlaðir. |
| | | the.boys.NOM.M.PL | were | tickled.NOM.M.PL |
| | | ‘The boys were tickled.’ | | |
| | b. | Strákunum | var | bjargað |
| | | the.boys.DAT.M.PL | were | tickled.DFLT |
| | | ‘The boys were rescued.’ | | |
| (2) | a. | Ég tel | strákana | (hafa verið) kitlaða. |

² 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.

- I believe the.boys.ACC.M.PL to.have been tickled.ACC.M.PL
 ‘I believe the boys to have been tickled.’
- b. Ég tel strákunum (hafa verið) bjargað.
 I believe the.boys.DAT.M.PL to.have been rescued.DFLT
 ‘I believe the boys to have been rescued.’
- (3) a. Strákarnir eru taldir (hafa verið)
 the.boys.NOM.M.PL are.PL believed.NOM.M.PL to.have been
 kitlaðir.
 tickled.NOM.M.PL
 ‘The boys are believed to have been tickled.’
- b. Strákunum er talið (hafa verið) bjargað.
 the.boys.DAT.M.PL 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).³ The following example shows case preservation in subject-to-subject raising across *virðast* ‘seem’ (the embedded predicate *batna* ‘recover from’ takes a dative subject and nominative object).

- (4) a. Barninu batnaði veikin.
 the.child.DAT recovered.from the.disease.NOM
 ‘The child recovered from the disease.’
- b. Barninu virðist hafa batnað veikin
 the.child.DAT seems to.have recovered.from the.disease.NOM
 ‘The child seems to have recovered from the disease.’

Andrews (1982: 462-464)

In sum, the distribution of quirky case DPs precisely tracks that of structural case DPs (and thus, in GB, would have fallen under the domain of Case Theory). 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 et al. (1985).

³ 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 et al. (1985), and Sigurðsson (1989). The arguments do not depend on correlating surface position and grammatical function.

Control is strikingly different (see Andrews 1976, 1982, 1990, Thráinsson 1979, Sigurðsson 1989, 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

- (5) a. Honum var bjargað frá fjallinu.
Him.DAT was rescued.DFLT from the.mountain
‘He was rescued from the mountain.’
b. Hann /*Honum vonast til að verða bjargað frá fjallinu.
He.NOM/*DAT hopes to be rescued.DFLT from the.mountain
‘He hopes to be rescued from the mountain.’ (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).

An example showing the failure of case preservation under (non-quirky) object control is given in (6).⁵

- (6) 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.’ (after B&H’s (7))

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).⁶ However, this is patently impossible. As Landau (2003) noted, the challenge lies not

⁴ There is some degree of speaker variation regarding some of the constructions discussed by B&H and here. For example, Sigurðsson (1989:96, n.31) and Andrews (1990) report some variation in case preservation effects under raising, with some predicates, but they note that the A-movement cases provide a sharp contrast to the control cases to be discussed below. The characterization of a significant split is not debated, so far as we know.

⁵ Example (6) is marginal for semantic reasons: object control verbs select agentive complements, but quirky subjects are never agentive. To the extent that it is interpretable, however, it manifests obligatory case independence. We have modified B&H’s example [their (7)], which failed to show this effect, as they used a controller DP whose form is ambiguous between ACC and DAT.

⁶ 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 2007), 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.

merely in describing the control facts; rather, the challenge is to describe 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 (5)-(6). The derivation they propose for a control example in all relevant respects identical to (5b) is given here (their (26)-(27), p. 599).

- (7) 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.’
- (8) NP_i T° ... t_i V° ... [T_{inf} ... V° [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” (p.600) 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. For roughly thirty years, the major challenge that quirky case has held for Case Theory, as described by both its opponents (Zaenen et al 1985, Marantz 1991) and proponents (Cowper 1987, Freidin and Sprouse 1991, Nomura 2005), has been precisely the opposite observation, namely that quirky case is *not* overwritten under movement to a case-position. Indeed, on the standard GB view, this property is effectively the defining characteristic of quirky case.

Although the reader will note this contradiction, B&H appear to have overlooked it. They do not indicate how their theory would avoid falsely predicting case-overwriting whenever a quirky DP undergoes movement. Indeed, they do not

mention the case-preservation effect at all. This is an unfortunate omission, implying that their account fails for standard examples.⁷

We might ask at this point what options are open to B&H for analyzing the case-preservation effects in A-movement, consistent with their other assumptions. As they give few clues, this is necessarily somewhat speculative. One possibility is that they adopt a standard GB/MP approach under which quirky case DPs also bear a hidden structural case feature, and that Case Theory makes reference to this hidden feature in the normal way (see Cowper 1987, Freidin and Sprouse 1991, Nomura 2005). They would appear to be committed to this view for quirky DPs under ECM at least. For instance, in a paper they rely on for some points of analysis, Boeckx adopts the ‘Inverse Case Filter’, whereby a derivation crashes if ECM *believe* fails to assign its structural accusative case (Boeckx 2003:11). If this is adopted, then *tel* ‘believe’ must be assigning its structural accusative to the quirky DP in an ECM example like (2b). Likewise, they assume within their presentation of the MTC (Boeckx and Hornstein 2004:436) that passive is only possible when structural case is absorbed. Since passive is possible with quirky ECM objects (see (3b)), they must assume that the verb in the active assigns structural accusative to the quirky DP. Nevertheless, a double-case approach along these lines will make precisely the wrong predictions for all instances of A-movement other than control, under B&H’s assumptions, as case-overwriting should apply and case preservation is (falsely) predicted never to exist.

On the other hand, B&H might reject the Inverse Case Filter, their prior approach to passive, and a double-case approach to the A-movement cases. Instead, they might pursue an approach where heads with structural case to assign do so only optionally, for example only if there is a DP around needing case (cf. Sigurðsson 1989, 1991). B&H’s derivations (29), p. 599 and (33), p. 600 have this character (for finite T°). Of the latter derivation, they state that “no structural Case is assigned in the matrix clause” (p.600), implying that matrix T° does not assign its NOM case when the subject DP has quirky case. However, a Last Resort view of this sort is inadequate. Under the MTC, matrix T° and *v*° in control environments must obligatorily (not merely optionally) assign structural case to the controller DP, even though it had already received quirky case in the infinitive. However, the same case assigners cannot (even optionally) assign case to quirky DPs in the A-movement configurations. Given

⁷ Including those in Landau (2003: 492)—the paper they are replying to. In B&H fn. 3, they do state: “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 a single one of the raising examples presented by Landau (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.

B&H's core idea, the higher structural case in A-movement would necessarily, and incorrectly, result in overwriting of quirky case here too. B&H are thus left with no non-circular way to explain the case preservation contrast, precisely as Landau (2003:493) noted.⁸

2.3 Case matching and independence: structural case

When quirky case is not at issue, object control and ECM look similar, with ACC case on the DP corresponding to the (understood) subject of the infinitival clause. However, as noted by ATS, the two constructions differ markedly in the case properties of agreeing elements in the infinitival clause. The pair in (9) illustrates with an agreeing secondary predicate *einn* 'alone', of the type discussed in B&H.

- (9) a. Ég bað hann_i að fara einn_i/eina_i þangað.
 I.NOM asked him.ACC to go alone.NOM/alone.ACC there
 'I asked him to go alone.' (Thráinsson 1979: 301)
- b. Jón taldi Bjarna_i hafa hlaupið eina_i/*einn_i.
 Jon.NOM believed Bjarni.ACC to.have run alone.ACC/NOM
 'Jon believed Bjarni to have run alone.' (B&H p.601)

As the facts are described by ATS, the agreeing element in the embedded clause in an object control structure "[can] either agree with the matrix controller in case or it [can] show up in the case that the subject of the complement would have had if it had been overt" (Thráinsson 1979: 361). As Thráinsson notes (citing Friðjónsson 1977), no such variability is possible in the ECM configuration. Case matching with the ECM subject (surface matrix object) is obligatory (9b). The agreement asymmetry is especially clear with predicate nouns and passive participles, as in (10).

- (10) a. Ég bað Maríu að vera tekin/***tekna** af lögreglunni
 I.NOM asked Maria.ACC to be taken.NOM/ACC by the.police
 'I asked Maria to be taken by the police.'
- b. Ég tel Maríu hafa verið ***tekin**/tekna
 I.NOM believed Maria.ACC to.have been taken.NOM/ACC
 af lögreglunni
 by the.police
 'I believed Maria to have been taken by the police.'
- (Thráinsson 1979:362-363)

⁸ In fact, the assumption that quirky case is sufficient for a DP to satisfy the Case Filter will create an even more serious problem regarding the lexicalization of PRO, to which we return in section 4.

The question these examples raise for the MTC is why in (9a) and (10a), NOM is available (indeed obligatory in (10a)) in the lower clause, but impossible in the (b) 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 (9), but fail to note the sharper contrast with participles and nouns. Their derivation of an ECM structure like (9b) is given as (11a) (their (35)), and should be contrasted with object control in (11b) (their (37)):

- (11) 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
 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 (11b). Thus, they “speculate that the marked default [sic] nominative Case on the floating quantifier in [structures corresponding to (11b)] 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 (11a)), case sharing is strictly obligatory.

There are at least two significant problems with this approach. The first, as noted, is that this approach is based on the incorrect assumption that ACC is always available on agreeing elements in the infinitive, and that they need only account for the nominative in examples like (9a). Their account thus predicts ACC as the basic form on the agreeing participle in (10a), with NOM if anything, a “marked default”, but the fact is that NOM is strongly, perhaps exclusively, preferred in such environments (we return to the status of the NOM in the next section).

The second problem they face 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 (12).

- (12) 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 *v* associated with ECM verbs such as *segja* ‘say’ has an EPP feature (Step 3 of (11a)). If this feature is retained under passive (e.g., if passive *vP* 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 *v* 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 (12) 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-studied empirical paradigms.

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.⁹

⁹ 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). This latter use of the term ‘default’ is not the one used by B&H, and not the one we dispute.

3.1 The “case” for default case

When the embedded predicate is not a quirky case assigner, PRO may take on NOM case. According to B&H, this option is marginal. Example (13) is their (14), with the judgments they provide.

- (13) 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 (13). 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 (13) 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)).¹⁰

We do not explore the alleged link between default assignment and marginality further though, since 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 former 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 because he was struck by 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). The following examples are reported to allow only NOM in the infinitive (Thráinsson 1979:327,362).¹¹

- (14) a. Hann kenndi honum að vera goður skákmaður/*góðum skákmanni.
 He taught him.DAT to be good chessplayer.NOM/*DAT
 'He taught him to be a good chessplayer.'

¹⁰ Apparently embedded "default NOM" case is 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.

¹¹ Presumably, B&H would not expect DAT in (14a), 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 (14a) is due to the relative inherent resistance of predicate nominals to case transmission, as evidenced by the parallel failure of ACC transmission in (14b).

- b. Ég bað Maríu að vera tekin/*tekna af lögreglunni. (= (10a))
 I asked Mary.ACC to be taken.NOM/*ACC by the.police
 ‘I asked Mary to be taken by the police.’

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”.

As previous scholars have observed, the phenomenon of case transmission in Icelandic exhibits considerable inter-speaker variation (similarly in Russian, see Landau 2007 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 (14b) (= (10a)) above serves to illustrate the point. As Thráinsson notes in discussing this and related examples, the passive participle obligatorily shows agreement (in number, gender and case) with the (null) subject of the infinitival. In (14b), the participle is in the FEM.SG.NOM form, and not in the default, non-agreeing form (which would be *tekið*). The default form is obligatory when the subject does not have structural case. In making this argument, Sigurðsson (1991:335-336) presents the following minimal pair.

- (15) a. Strákarnir vonast til að verða aðstoðaðir/*aðstoðað.
 the.boys.NOM hoped to be aided.NOM.PL/*DFLT
 ‘The boys hope to be aided.’
 b. Strákarnir vonast til að verða hjálpað/*hjálpaðir/*hjálpaðum.
 the.boys.NOM hoped to be helped.DFLT/*NOM.PL/*DAT.PL
 ‘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 (15b). 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 (15a). 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 (16) (from Sigurðsson 1991: 338, paraphrase added) shows, true default NOM DPs fail to trigger agreement, even on participles.

- (16) Strákurinn, við hann var ekki **dansað**/*dansaður.
 the.boy.NOM with him.ACC was not danced.DFLT/*NOM.SG.M
 ‘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 (14b), it follows—on B&H’s own assumptions—that this NOM is structural case. Had it been default NOM, it would have been expected to block agreement, on a par with the default NOM DP in (16) or other non-structural case DPs generally.

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’s (1991) paper (on p.593) selectively mentions only his examples of agreement with FQ/SP. A major theme in Sigurðsson (1991) 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 (14a,b) and (15a), can; and the fact that they

manifest full agreement, in contrast to (15b) and (16), vindicates the standard structural NOM analysis and refutes B&H's default NOM proposal.¹²

3.3 The Russian facts

Icelandic is not alone in featuring MPs and SPs that agree in case with the DP they are predicated of. Among the languages possessing this feature, Russian has attracted considerable attention. In fact, the very issue presently under debate – the case of PRO – was fruitfully pursued in Russian, using the same procedures as in Icelandic. This extensive research has produced results that bear directly on the question of whether PRO bears default case (Comrie 1974, Schein 1982, Greenberg 1983, 1989, Neidle 1988, Franks 1990, 1995, 1998, Greenberg and Franks 1991, Babby 1998, Babby and Franks 1998; see also Franks and Hornstein 1992).

Roughly speaking, the accepted generalization for Russian is this: Case transmission (of NOM) is found only in subject control, where the CP layer of the infinitive is phonologically null; anywhere else, PRO is assigned DAT (the so-called “Second Dative”).¹³ Illustrative examples are given in (17) (the agreeing SPs are *odin* ‘alone’ and *sam* ‘(by) himself’).

- (17) a. Kostja obeščal [PRO prijti odin].
Kostja.NOM promised PRO to-come alone.NOM
‘Kostja promised to come alone.’
- b. Ona poprosila ego [PRO ne ezdit’ tuda odnomu].
she.NOM asked him.ACC PRO not to-go there alone.DAT
‘She asked him not to go there alone.’
- c. Ljuda priexala [čtoby PRO pokupat’ maslo samoj].
Ljuda.NOM came in-order PRO to-buy butter herself.DAT

¹² 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 fn.6, given here). 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).

(i) Marija skipađi Jóni að vera þægur.
Maria.NOM ordered Jon.DAT to be well.behaved.NOM.SG.M
‘Maria ordered Jon to be well-behaved.’

The agreement pattern in this example provides further evidence that there is a structural NOM DP in the infinitive, controlling agreement on the adjective, as noted in the source literature.

¹³ This is Comrie's original formulation, which has gone unchallenged in the field. However, a recent informant-study (Landau 2007) reveals that case transmission in Russian is considerably more common, often alternating with the infinitive-internal case (DAT), much like in Icelandic. These findings do not in any way affect the main point of the text, which simply relies on the pervasive occurrence of dative PRO in Russian infinitives.

‘Ljuda came to buy the butter herself.’

- d. Ivan dumaet čto [PRO pojti domoj odnomu] važno.
 Ivan.NOM thinks that PRO to-go home alone.DAT important
 ‘Ivan thinks that it is important to go home alone.’

The embedded DAT in (17b-d) must be *structural*, not default case. Three sets of considerations point to this conclusion unequivocally. First, the default case of predicates in Russian is INST (instrumental), not DAT (18a). Second, the default case of arguments in Russian (e.g., in dislocation) is NOM, not DAT (18b). Finally, *odin/sam* do not occur in default case anyway, but always agree with their subject (18c).

- (18) a. Taras prišël p’janyj/p’janyj.
 Taras.NOM came drunk.INST/NOM
 ‘Taras came drunk.’
 b. Taras/*Tarasa/*Tarasu, my by xoteli pomoč’ ego kompanii.
 Taras.NOM/*GEN/*DAT we PRT like.PAST to-help his.GEN company
 ‘Taras, we would like to help his company.’
 c. Taras prišël odin/*odnim/*odnomu.
 Taras.NOM came alone.NOM/*INST/*DAT
 ‘Taras came alone.’

Any attempt to maintain that DAT in (17b-d) is default, rather than structural case, would run into serious difficulties. Default case is never assigned to *odin/sam*, but even if it were, it should be INST, not DAT. On the other hand, if default case is assigned first to PRO (or the controller’s trace) and only via concord to *odin/sam*, it should be NOM, not DAT. A proponent of default case would have to say that Russian employs different default cases in finite and nonfinite clauses, and furthermore, that *odin/sam* are eligible for this case only in infinitives. These ad hoc assumptions simply redescribe the problem without solving it.

Although B&H restrict their database to Icelandic, there is nothing in their theoretical claims to restrict them to any particular language. Specifically, it is of fundamental importance to the MTC that OC chains bear a single structural case (see the next section for discussion), and this result should hold universally. Situations where the lower case appears to be structural, then, must be explained away – e.g., by invoking default case. Icelandic tolerates this move, at least superficially (though not in specifics), since the structural case assigned to PRO and the default case of the language happen to be identical, namely, NOM. This strategy, however, is hopeless in the face of the Russian facts, where the case of PRO (or the agreeing SP) is clearly

distinct from the default case(s) of the language. Thus, the Russian facts bolster the conclusion that by now seems inescapable: PRO may bear structural case (and translated to MTC's terms: OC chains may bear multiple structural cases).

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 put in danger 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).

4.1 Overgeneration I: Lexicalizing a nominative PRO

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) reiterates this parallelism as the source of the nullness of PRO, deriving it, ultimately, from Nunes' (1995) theory of copy deletion (fn. 29). B&H express their continued reliance on Nunes as well (p. 600). Now, Nunes' theory is really a sophisticated expansion of the Case Theory. In essence, 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

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.

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 (and Russian). 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.

- (19) a. *Jón vonast til [hann/Eiríkur að verða ráðinn]
 Jon.NOM hopes he/Eric.NOM to be hired.NOM.M.SG
 ‘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.NOM.F.SG 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, in most languages that have been investigated (the English *for*-infinitive is a notable exception, and not a true variant of the OC infinitive). Yet the MTC inevitably overgenerates them, 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, to appear 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 (19a,b)?

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 purported “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.

Evidently, a viable theory of OC must dissociate the distribution of PRO from case. Theories with this property exist (Sigurðsson 1991, Harley 2000, Carnie and

Harley 1997, Tallerman 1998, Wurmbrand 2002, San-Martin 2004, Landau 2004, 2006), although it is not our purpose to evaluate them here. Our present aim is to point out how B&H's analysis of case agreement in Icelandic leads to the lexicalization problem in more than one way.¹⁵

4.2 Overgeneration II: Lexicalizing an accusative PRO

In (11b) above we examined B&H's derivation of object control structures. It was noted there that linking the optionality of multiple Agree (and hence, of "default" NOM on the embedded FQ) to the multiple goals not being clausemates incorrectly permitted default NOM to emerge under passive ECM constructions. We would now like to point out another flaw in derivation (11b) which gives rise to lexical ACC subjects under object control. On B&H's assumptions, we argue, (20) is overgenerated with the derivation in (21) (following B&H, we omit the matrix subject in (21); subscripts "M" and "E" stand for "matrix" and "embedded", respectively).

- (20) Ég bað Maríu [að (*hana/*Bjarna) fara þangað]
 I asked Maria.ACC to he/Bjarni.ACC go there
 'I asked Maria (for him/Bjarn) to go there.' (after Thráinsson 1979:301)

- (21) v_M *María* V_M [T_E *Bjarni* v_E V_E]
 Step 1: V_E assigns θ -role to *Bjarni*
 Step 2: V_M assigns θ -role to *María*
 Step 3: v_M assigns structural ACC to *María* and *Bjarni* by multiple Agree

¹⁵ B&H do seem to recognize the problem for a case-based account, as in a separate paper they appear to retreat from their earlier position, invoking a notion of "maximal checking" in place of case:

"... a chain can be extended up to its point of maximal checking, which in the case of A-chains is defined in terms of [full T(ense)-full ϕ [Person + Number]... the maximal checking site for an A-chain is not defined in terms of case checking... because (a) there is nonnegligible evidence that multiple cases can be assigned to a single chain... and (b) Case is no longer central to current theories of checking, having been reinterpreted in terms of T- (Pesetsky & Torrego 2001) or ϕ -checking (Chomsky 2001, 2004)" B&H (2006a:124)

This sketchy proposal raises various difficulties. First, what is it that is "maximally checked" on the head of an A-chain? Clearly these are not the ϕ -features, which are interpretable on DPs. Case appears to be the only candidate, which is now renamed (in clause (b)) as some unidentified uninterpretable feature (*uF*). B&H mention Tense in this context, but the licensors/checkers of this *uF* must include finite T, active *v* (for objects), and (some functional projection in) P, along with whatever mechanism they assume for inherent case. Furthermore, if abstract case is not essential to DP licensing, and morphological case does not spell out *uF*, why do B&H (2006b) devote so much energy to arguing that NOM in the infinitive is not structural? The unstated, but vigorously defended tenet, is that structural case (in something close to the GB sense) determines lexicalization. As the literature reviewed here makes a compelling case for this lower NOM being structural, there is no escape for the MTC from the lexicalization problem.

(21) differs from (11b) in two respects. In step 2, instead of raising the embedded subject to the matrix VP, where it would be assigned a second θ -role, we merge a new DP from the numeration directly in the matrix VP. In step 3, the remote goal of multiple Agree is a DP rather than a FQ. It is hard to see how either of these differences can be held responsible for the grammaticality contrast between (21) and (11b). Economy considerations regulating the interaction of external merge and internal merge (e.g., movement) should not be relevant as these have distinct numerations (one has an extra DP). Similarly, if Agree between v_M and the controller DP does not block Agree (v_M , FQ) in (11b), there is no reason for it to block Agree (v_M , *Bjarni*) in (21). Thus, on B&H's own assumptions – crucially tying lexicalization to case – (20) represents a systematic class of overgenerated sentences.

4.3 Overgeneration III: Lexicalizing a quirky PRO

Recall that B&H claim that PRO in Icelandic never gets structural case (the NOM that appears is default). The discussion above provides a refutation of this claim.¹⁶ However, B&H do accept multiple case assignment when PRO bears quirky case. This should immediately raise the question of why it is impossible for these cases to be assigned to two distinct DPs, yielding overt subjects in control infinitives, as in (22).

- (22) *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)

Here again, B&H would appear to face the lexicalization problem. Recall (from section 2.2) that quirky case, for B&H, is apparently sufficient for the purposes of licensing a lexical DP.¹⁷ While this might appear to (partly) dodge the issue of case preservation, this assumption pulls the rug out from under the central component of their analysis of control. Having both case and a θ -role, the DP in the lower clause in (22) 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.

¹⁶ 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.

¹⁷ For example, the quirky DP in their (33) undergoes no feature checking with the finite T, other than checking of an EPP feature. Thus, the question here is independent of the name given to abstract case (see n.15): does quirky case pattern with inherent case in satisfying the requirements for lexicalization of DP without further feature checking, or not?

Either quirky case does or does not suffice for licensing an overt DP. If it does, then the lexicalization problem appears devastating to the core of the MTC. If it does not (as in classic GB) then the case-preservation problem appears to directly refute their primary premise in their analysis of case agreement. 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 systematically fail to address.

To summarize this section, 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. Notice that the problem arises under *core* assumptions of the MTC, such that minor technical adjustments do not seem sufficient.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.

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. Structural case transmission can be seen only with ACC (23a-b). We have said nothing about the behavior of controllers with inherent/quirky (I/Q-) case (23c-d).

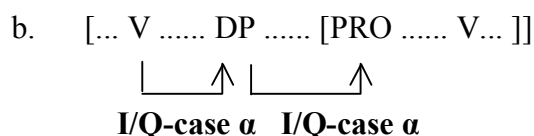
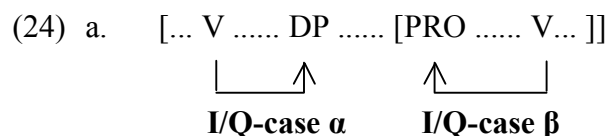
- (23) a. [... DP.ACC ... [PRO.NOM ...]]
 b. [... DP.ACC ... [PRO.ACC ...]]
 c. [... DP.I/Q-case ... [PRO.NOM ...]]
 d. [... DP.I/Q-case ... [PRO. I/Q-case ...]]

B&H cite examples of type (23c) (their (8), (19b), (i) in fn. 6), indicating that the controller DP receives a single case – I/Q-case in the matrix clause. Since no structural case is assigned in the infinitive, the SP, which must be specified for case to be pronounceable, receives default NOM.

Case (23d) really breaks down into two subtypes. In the first one, two (possibly) different I/Q-cases are independently assigned in the infinitive and in the matrix

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.

clause. In the second one, the embedded predicate does not, but the matrix predicate does, assign I/Q-case, which is transmitted downstairs.¹⁹



Recall that B&H identify I/Q-case with θ -role (they often use the expression “ θ -role/quirky Case”). Thus, they take examples of type (24a) (e.g., their (9), (20)) to reflect nothing more than the simple fact that OC chains are assigned two θ -roles.

As to type (24b) – B&H deny its existence. 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 (25) and with dative object controllers (26), 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).

- (25) 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 The scheme in (24b) merely depicts case transmission; it should not be understood as specifying *how* that happens. We elaborate on this below.

- (26) 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 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 is transmitted to PRO in (24b), the matrix θ -role is not. Presumably, B&H prohibited long-distance assignment of I/Q-case since long-distance assignment of θ -roles is unattested. However, facts such as (25)-(26) 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 (9a)). 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

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.

controller since it is the only option, transmission of quirky/inherent case being excluded.

Unfortunately for this reasoning, the latter assumption is false, as (25)-(26) demonstrate. Thus, case transmission does not distinguish structural from non-structural cases. Therefore, on B&H's assumptions, default NOM must override a transmitted DAT no less than it must override 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. To mention just a few, the MTC cannot explain why (27a,b) are non-derivable, nor why *agree* and *condescend* contrast in (27c).²²

- (27) a. * They were hated to have passed the resolution.
b. * John's_i examination of the patient convinced Mary to applaud himself_i.
c. The head of the committee agreed/*condescended to disperse after 3 hours of futile discussions.

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.

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. Landau (2007) analyses case transmission across a broad range of configurations and languages in terms of the same Agree operation that underlies OC dependencies. Case, being bundled together with ϕ -features, may be transmitted to PRO whenever the infinitive (that is, the embedded T or C) is unspecified for case; optional specification yields optional case transmission. The precise pattern of case transmission, revealed in languages like Russian and Ancient Greek, is considerably more intricate than the simplistic picture portrayed in B&H (2006b) (we refer the reader to Landau 2007 and the references therein). Importantly, it can be handled under core assumptions, contra the claim that "no extant theory of control can accommodate the Icelandic facts without (similar) adjustments" (B&H 2006b:604).

²² These facts were discussed in Landau (2003). Hornstein (2003) and Boeckx & Hornstein (2004) offer narrowly applicable solutions, that do not extend to the examples in (27), as shown in Landau, to appear.

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. The lexicalization problem lies at the heart of the MTC. Without an explanation of why the embedded subject cannot be generated independently of the controller, the theory can hardly be said to be "a theory of control".

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, Massachusetts: 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, 117-149.
- Boeckx, Cedric. 2003. Case matters and Minimalist concerns. In Cedric Boeckx, Claire Bowern, and Jay H. Jasanoff, eds., *Harvard Working Papers in Linguistics*, 8, 159-197.
- Boeckx, Cedric, and Hornstein, Norbert. 2004. Reply to "Control is not movement". *Linguistic Inquiry* 34, 269-280.
- Boeckx, Cedric, and Hornstein, Norbert. 2004. Movement Under Control. *Linguistic Inquiry* 35, 431-452.
- Boeckx, Cedric, and Hornstein, Norbert. 2006a. The virtues of control as movement. *Syntax* 9.2, 118-130.
- Boeckx, Cedric, and Hornstein, Norbert. 2006b. Control in Icelandic and Theories of Control. *Linguistic Inquiry* 37.4, 591-606.
- Carnie, Andrew, and Harley, Heidi. 1997. PRO, the EPP and Nominative Case: Evidence from Irish Infinitivals. *UPenn Working papers in Linguistics* 4, 71-86.
- Cecchetto, Carlo, and Oniga, Renato. 2004. A challenge to Null Case Theory. *Linguistic Inquiry* 35, 141-149.
- 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.
- Cowper, Elizabeth. 1987. What is a subject? Non-nominative subjects in Icelandic. *Proceedings of NELS 18*, ed. by J. Blevins and J. Carter, 94-108 Amherst: GLSA.
- Franks, Steven. 1990. Case, Configuration and Argumenthood: Reflections on the Second Dative. *Russian Linguistics* 14, 231-254.
- Franks, Steven. 1995. *Parameters of Slavic Morphosyntax*. New York: Oxford 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.
- Franks, Steven, and Hornstein, Norbert. 1992. Secondary Predication in Russian and Proper Government of PRO. In *Control and Grammar*, ed. by Richard Larson, Sabine Iatridou, Utpal Lahiri and James Higginbotham, 1-50. Dordrecht: Kluwer Academic Publishers.
- Freidin, Robert, and Sprouse, Rex A. 1991. Lexical case phenomena. In *Principles and parameters in comparative grammar*, ed. by Robert Freidin, 392-416. Cambridge, MA: MIT Press.
- Friðjónsson, Jón. 1977. Um sagnfyllingu með nafnhætti. *Gripla* II:132-150.
- 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.
- Greenberg, Gerald R., and Franks, Steven. 1991. A Parametric Approach to Dative Subjects and the Second Dative in Russian. *Slavic and East European Journal* 35, 71-97.
- Harley, Heidi. 2000. Irish, the EPP and PRO. Ms., University of Arizona, Tuscon.
- 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*, University of Massachusetts.
- 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. 2007. Two routes of Control: Evidence from case transmission in Russian. Ms. Ben Gurion University.
- Landau, Idan. To appear. Movement-Resistant Aspects of Control. *New Horizons in the Grammar of Raising and Control*, ed. by Stanley Dubinsky & William Davies, Springer.
- Marantz, Alec. 1991. Case and Licensing. In *Proceedings of Eastern States Conference on Linguistics*, ed. by German Westphal, Benjamin Ao and Hee-Rahk Chae, 234-251. Ithaca, NY: CLC Publications.
- Neidle, Carol Jan. 1988. *The Role of Case in Russian Syntax*. Dordrecht: Kluwer Academic Publishers.
- Nomura, Masashi. 2005. *Nominative case and AGREE(ment)*, Doctoral dissertation, University of Connecticut, Storrs.
- 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.
- Polinsky, Maria, and Potsdam, Eric. 2003. Control in Malagasy. In *Proceedings of AFLA 9, Cornell Working Papers in Linguistics* 19, 173-187, Ithaca: Cornell Linguistics Club.

- Quicoli, Antonio Carlos. 1982. *The Structure of Complementation*. Ghent: Story-Scientia.
- San-Martin, Itziar. 2004. *On Subordination and the Distribution of PRO*. Doctoral dissertation, University of Maryland, College Park.
- Schein, Barry. 1982. Nonfinite Complements in Russian. In *Papers in Syntax: MIT Working Papers in Linguistics 4*, ed. by Alec Marantz and Tim Stowell, 217-243. Cambridge: MIT.
- Sigurðsson, Halldór Ármann. 1989. *Verbal syntax and case in Icelandic in a comparative GB approach*, Doctoral dissertation, University of Lund, Lund, Sweden.
- 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. 1992. The Case of Quirky Subjects. *Working Papers in Scandinavian Syntax* 49, 1-26.
- Sigurðsson, Halldór Ármann. 1996. Icelandic Finite Verb Agreement. *Working Papers in Scandinavian Syntax* 57, 1-46.
- 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. Case on PRO. Ms. Lund University. <http://ling.auf.net/lingBuzz/000395>
- Tallerman, Maggie. 1998. The Uniform Case-licensing of Subjects in Welsh. *The Linguistic Review* 15, 69-133.
- Thránisson, Höskuldur. 1979. *On Complementation in Icelandic*. New York: Garland Press.
- Wurmbrand, Susi. 2002. Syntactic versus Semantic Control. In *Studies in Germanic Syntax*, ed. by C. Jan-Wouter Zwart and Werner Abraham, 93-127. Amsterdam & Philadelphia: John Benjamins.
- Wurmbrand, Susi. 2007. Licensing Case. *Journal of Germanic Linguistics* 18.3:174-234.
- Zaenen, Annie, Maling, Joan, and Thránisson, Höskuldur. 1985. Case and Grammatical Functions: The Icelandic Passive. *Natural Language and Linguistic Theory* 3, 441-483.