

Remarks and Replies

Icelandic Control Really Is A-Movement: Reply to Bobaljik and Landau

*Cedric Boeckx
Norbert Hornstein
Jairo Nunes*

This article discusses the challenges that Bobaljik and Landau (2009) pose to Boeckx and Hornstein's (2006) movement-based analysis of control in Icelandic. We show in detail that contrary to what Bobaljik and Landau claim, the movement theory of control (with a modification to accommodate quirky Case, a specialty of Icelandic) makes the right empirical cuts regarding the issues they raise, namely, (a) the differences in Case agreement between control and raising constructions, (b) the different patterns of Case transmission (un)available, and (c) the fact that allegedly Case-marked PROs are phonetically null. We argue that rather than being problematic, the data bearing on these issues actually provide independent support to the movement theory of control.

Keywords: movement theory of control, Icelandic, Case concord, Case transmission, control, raising, PRO

1 Introduction

Boeckx and Hornstein (2006:592) make two main points: (a) that “no currently entertained theory of control can accommodate the reported Icelandic data without alteration,” and (b) that the Icelandic data, when properly considered, are consistent with, indeed support, a movement theory of control (MTC) of the sort proposed by Hornstein (1999, 2001) and refined in Hornstein 2003 and Boeckx and Hornstein 2003, 2004.¹ As Boeckx and Hornstein (2006:597) claim, “Icelandic control is just like English control” and, with minor modifications prompted by the idiosyncrasies of quirky Case (i.e., taking into account the special properties of Icelandic quirky Case and

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¹ The case is reprised in great detail and with additional arguments in Boeckx, Hornstein, and Nunes, forthcoming.

factoring this independent variable out), can easily be analyzed as an instance of A-movement. This remains our position.

Bobaljik and Landau (2009:114) nonetheless claim that “[t]he primary challenge to the MTC from Icelandic case facts is that control is systematically unlike all forms of A-movement.”² We completely agree with the claim that control is different from other instances of A-movement. That is, control is not raising or passive or local scrambling *qua* construction in the same way that *wh*-questions, relative clauses, and long-distance scrambling structures are all different *qua* constructions, despite employing the same grammatical device (Ā-movement). However, what is actually at issue is whether control involves (A-)movement and whether the differences between control and other forms of (A-)movement reduce to the distinguishing property of control, namely, that it involves movement through multiple θ-positions.

It is worth emphasizing two points of logic, which have repeatedly been missed. First, the MTC is a *movement* theory of control, not a *raising* theory of control. So, differences between control and raising constructions do not by themselves constitute a counterargument to the MTC. In fact, that differences should exist is not at all unexpected. Although control and raising both resort to A-movement under the MTC, they differ with respect to the target of the relevant movement: a θ-position in control and a non-θ-position in raising. Second and more important, under the MTC this single difference in the position that is targeted for movement should underlie the reported differences between control and raising. In other words, rather than presenting a catalogue of unconnected (therefore, unexplained) differences between control and raising, the MTC tells us exactly where to look for an account of such differences. It is therefore a theoretical virtue of the MTC that it has very little room for maneuver. If the differences between raising and control can be traced to the fact that control involves multiple θ-dependencies while raising involves but one, then this supports the MTC’s central thesis. We argue below that this logic holds.

More specifically, in this reply we show in detail that the MTC (with a modification to accommodate quirky Case, a specialty of Icelandic) makes the right empirical cuts regarding the differences in Case agreement between control and raising constructions. We then turn to Bobaljik and Landau’s (2009:114) conclusion that the MTC “fail[s] to explain the fundamental fact of [obligatory control]: that controlled subjects are unpronounced.” This is incorrect. As Hornstein (1999:82) notes (and Bobaljik and Landau (pp. 124–125) quote), given the MTC “the null phonetic status of PRO is explained in *whatever way we explain the null phonetic status of NP-trace*” (our emphasis). Thus, we not only think that the MTC accounts for the phonetic nullity of PRO; we believe it is the only account that currently does. Nonmovement approaches merely stipulate this fact.³

² Sigurðsson (2008) offers a similar critique, which we address separately (see Boeckx, Hornstein, and Nunes, in preparation).

³ See, for example, Landau 2004 and Sigurðsson 2008.

2 Raising versus Control

The basic concord facts bearing on the nature of control can be described as follows: in some languages with a fair amount of case morphology such as Icelandic, a variety of elements (floating quantifiers, secondary predicates, passive participles, and adjectival/nominal predicates) in a clause embedded under a control verb sometimes display case morphology that is distinct from the case morphology that shows up on the controller. In (1), for instance, the embedded participles surface with the default morphology associated with the quirky dative assigned by the embedded verbs, while the matrix subjects bear nominative Case. Such Case mismatches in control constructions have been interpreted as indicating that the embedded clause is an independent Case domain and that the agreement on the embedded predicates is determined by a quirky-Case-marked PRO (see, e.g., Sigurðsson 1991).

(1) a. Hann/*Honum vonast til að verða bjargað af fjallinu.
 he.NOM/*DAT hopes for to be rescued.DFLT of the.mountain
 'He hopes to be rescued from the mountain.'
 (Andrews 1990, reproduced in Bobaljik and Landau 2009:116)

b. Strákarnir vonast til að verða hjálpað/*hjálpaðir/*hjálpuðum.
 the.boys.NOM hope for to be helped.DFLT/*PL.NOM/*PL.DAT
 'The boys hope to be helped.'
 (Sigurðsson 1991, reproduced in Bobaljik and Landau 2009:123)

By contrast, raising constructions do not display this Case disparity: the agreement morphology of floating quantifiers, secondary predicates, passive participles, and adjectival/nominal predicates in the embedded clause is always determined by the matrix subject. Hence, in (2a) the embedded participles display agreement with the nominative subject, and in (2b) they surface with default morphology in virtue of agreeing with the quirky dative subject.

(2) a. Strákarnir eru taldir (hafa verið)
 the.boys.MASC.PL.NOM are.PL believed.MASC.PL.NOM to.have been
 kitlaðir.
 tickled.MASC.PL.NOM
 'The boys are believed to have been tickled.'
 (Andrews 1990, reproduced in Bobaljik and Landau 2009:115)

b. Strákunum er talið (hafa verið) bjargað.
 the.boys.MASC.PL.DAT is.SG believed.DFLT to.have been rescued.DFLT
 'The boys are believed to have been rescued.'
 (Andrews 1990, reproduced in Bobaljik and Landau 2009:115)

Bobaljik and Landau (2009:118) claim that "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." This is incorrect. The key, as Boeckx and Hornstein (2006:e.g., 597) stress, is to

take the nature of quirky Case in Icelandic into account. As is well known, Icelandic has a morphologically rich Case agreement system in which structural Case and quirky Case are associated with different agreement paradigms (for a comprehensive overview, see Thráinsson 2008). Like what we see in other languages, quirky Case in Icelandic displays properties of both inherent and structural Case. Like inherent Case and unlike structural Case, it is associated with a θ -role and is lexically determined. On the other hand, it is unlike inherent Case in that it does not render its recipient frozen for purposes of A-movement; rather, it behaves like structural Case in requiring an agreement relation with a ϕ -complete head in order to be deactivated for A-purposes. Let's then examine how quirky Case assignment and checking obtain in a simple sentence before discussing how the MTC accounts for contrasts such as that between (1) and (2).

Assuming a fairly standard structure for passives, consider the derivation of the quirky passive sentence in (3), for instance, as sketched in (4) (with English words for convenience, irrelevant details omitted).

Given the derivational step in (4a), the verb merges with DP and assigns quirky Case to it, as shown in (4b). Such an assignment means that that Case feature of the DP has been valued as dative. However, the quirky-Case-marked DP (hereafter, the quirky DP) is still active for purposes of A-relations as its Case feature must be checked against a ϕ -complete probe in order to be deactivated. The next step of the derivation, in (4c), introduces the participial passive head *-en*, which has Case and an incomplete set of ϕ -features (gender and number). Given that both *-en* and the object DP are active, they can enter into an agreement relation. As is standard in the literature on Icelandic, when a given probe enters into an agreement relation with an element marked with quirky Case, the features of the probe receive default values if there is no nominative

goal around; hence, the features of *-en* in (4d) are valued as neuter, singular, and nominative.⁴ Notice that as opposed to the features of *-en*, which are deleted for LF purposes once valued (as represented by the characters with overstrikes), the Case feature of the quirky object remains active as it has not yet entered into an agreement relation with a ϕ -complete probe. This only happens when the finite T enters the derivation in (4e). Agreement between the ϕ -complete T and the quirky DP then sets the value of the ϕ -features of T as default (third person singular), and all the uninterpretable features—including the Case feature of the moved object—are deleted for LF purposes, yielding the structure in (4f).

The derivation above, assumed in Boeckx and Hornstein 2006, just spells out in Agree-parlance the old intuition that quirky Case has both inherent and structural characteristics.⁵ This old idea, coupled with one natural assumption regarding quirky Case assignment, is however sufficient to account for the contrast between control and raising illustrated in (1) and (2). The derivation of the raising construction in (2b), repeated here in (5), for instance, proceeds along the lines of (6) (with English words, irrelevant details omitted).

(5) Strákunum er talið (hafa verið) bjargað.
 the.boys.MASC.PL.DAT is.SG believed.DFLT to.have been rescued.DFLT
 'The boys are believed to have been rescued.'
 (Andrews 1990, reproduced in Bobaljik and Landau 2009:115)

(6) a. *Assignment of quirky Case*
 [VP rescued [the boys]_[Case:DAT]]
 b. *Merger of a ϕ -incomplete probe*
 [Pp_{leP} *-en*_[Case:?: ϕ :?] [VP rescued [the boys]_[Case:DAT]]]
 c. *Agreement between the passive participle and the quirky DP*
 [Pp_{leP} *-en*_[Case:dflt; ϕ :dflt] [VP rescued [the boys]_[Case:DAT]]]
 d. *Applications of Merge and Move*
 [VP believed [TP [the boys]_[Case:DAT] to have been [Pp_{leP} *-en*_[Case:dflt; ϕ :dflt] [VP rescued t]]]]]
 e. *Merger of a ϕ -incomplete probe*
 [Pp_{leP} *-en*_[Case:?: ϕ :?] [VP believed [TP [the boys]_[Case:DAT] to have been . . .]]]
 f. *Agreement between the passive participle and the quirky DP*
 [Pp_{leP} *-en*_[Case:dflt; ϕ :dflt] [VP believed [TP [the boys]_[Case:DAT] to have been . . .]]]
 g. *Merger of a ϕ -complete probe*
 [TP T_[ϕ :?] be [Pp_{leP} *-en*_[Case:dflt; ϕ :dflt] [VP believed [TP [the boys]_[Case:DAT] to . . .]]]]

⁴ This is also the pattern found with nominal and adjectival predicates. On the pattern displayed by secondary predicates and floating quantifiers, see section 3.

⁵ See for example Freidin and Sprouse 1991, Chomsky 2000, and Richards 2008 for relevant discussion.

h. *Agreement between T and the quirky DP + movement*

$[\text{TP} \text{ [the boys]}_{\text{Case:DAT}} \text{ [T'} \text{ T}_{\phi:\text{dflt}} \text{ be } [\text{Pp} \text{leP} \text{ -en}_{\text{Case:dflt; } \phi:\text{dflt}} \text{ [VP believed } [\text{TP} \text{ } t \text{ to } \dots \text{]]]]]$

i. [the.boys.MASC.PL.DAT is.SG believed.DFLT to.have been rescued.DFLT]

After its Case feature is valued in (6a), the quirky DP enters into agreement with the two passive morphemes, setting their features to default values (see (6c) and (6f)), but remains active for purposes of A-movement as passive morphemes are not associated with a complete ϕ -set (they don't have the person feature). The quirky DP will only become inactive after agreeing with the finite T (a ϕ -complete probe), as shown in (6h). As in the derivation of a simple passive (see (4)), the embedded object triggers default agreement on its way to the matrix Spec,TP and surfaces with the quirky Case it received in the most embedded clause.

By contrast, the derivation of a control structure like (1b), repeated here in (7), proceeds as sketched in (8) (again with English words; irrelevant details omitted).

(7) Strákarnir vonast til að verða hjálpað/*hjálpaðir/*hjálpuðum.

the.boys.NOM hope for to be helped.DFLT/*PL.NOM/*PL.DAT
'The boys hope to be helped.'

(Sigurðsson 1991, reproduced in Bobaljik and Landau 2009:123)

(8) a. *Assignment of quirky Case*

$[\text{VP} \text{ helped } [\text{the boys}]_{\text{Case:DAT}}]$

b. *Merger of a ϕ -incomplete probe*

$[\text{Pp} \text{leP} \text{ -en}_{\text{Case:}?; \phi:?} \text{ [VP helped } [\text{the boys}]_{\text{Case:DAT}} \text{]}]$

c. *Agreement between the passive participle and the quirky DP*

$[\text{Pp} \text{leP} \text{ -en}_{\text{Case:dflt; } \phi:\text{dflt}} \text{ [VP helped } [\text{the boys}]_{\text{Case:DAT}} \text{]}]$

d. *Applications of Merge and Move*

$[\text{VP} \text{ v } [\text{VP} \text{ hope } [\text{CP} \text{ C } [\text{TP} \text{ [the boys]}_{\text{Case:DAT}} \text{ to be } [\text{Pp} \text{leP} \text{ -en}_{\text{Case:dflt; } \phi:\text{dflt}} \text{ [VP helped } t \text{]]]]]]$

e. *Movement and θ -assignment*

$[\text{VP} \text{ [the boys]}_{\text{Case:}?} \text{ [v' v } [\text{VP} \text{ hope } [\text{CP} \text{ C } [\text{TP} \text{ } t \text{ to be } \dots \text{]]]]]]$

f. *Merger of a ϕ -complete probe*

$[\text{TP} \text{ T}_{\phi:?} \text{ [VP [the boys]}_{\text{Case:}?} \text{ [v' v } [\text{VP} \text{ hope } [\text{CP} \text{ C } [\text{TP} \text{ } t \text{ to be } \dots \text{]]]]]]$

g. *Agreement between T and DP, Case valuation, and movement*

$[\text{TP} \text{ [the boys]}_{\text{Case:NOM}} \text{ [T'} \text{ T}_{\phi:\text{3PL}} \text{ [VP } t \text{ [v' v } [\text{VP} \text{ hope } [\text{CP} \text{ C } [\text{TP} \text{ } t \text{ to be } \dots \text{]]]]]]]]$

h. [the.boys.NOM hope for to be helped.DFLT]

The derivation of the embedded clause proceeds like the derivation of raising constructions until we reach the derivational steps in (8d–e). As opposed to the other movements discussed thus far, the movement of the quirky DP in (8e) is triggered by the thematic properties of the matrix light verb. This distinction can make a very big difference given the MTC. In particular, we propose

that the assignment of an additional θ -role to the moved DP removes its quirky Case marking. Recall that a given quirky Case is intrinsically tied to a specific θ -role. Thus, it is natural to assume that assigning an additional θ -role to an element bearing quirky Case can be problematic and that in the course of assigning the second θ -role, the quirky Case value previously specified is removed. Let's assume that this is so. Once the quirky Case value in (8e) is eliminated, the derivation proceeds in a standard fashion, with the DP having its Case valued through agreement with a ϕ -complete probe (see (8g)). Given that in (8g) the probe is a finite T, the moved DP surfaces as nominative (see (8h)).

Notice that the controller surfaces with structural Case in (8h) because the θ -role it received in the matrix Spec,vP was not tied to any specific morphology. This is not the only possibility, though. If the θ -role of the matrix predicate is associated with quirky Case, the controller will then surface with the last quirky Case it received and will trigger default agreement of the finite T. This is how we propose control structures with quirky Case assigners both in the matrix and in the embedded clause are to be derived. The derivation of (9), for example, proceeds as sketched in (10) (continuing with English words).⁶

(9) Hana langar ekki til að vera kalt.
 her.ACC longs not for to be cold.DFLT
 'She doesn't want to be (feeling) cold.'
 (Sigurðsson 2008:407)

(10) a. *Assignment of quirky Case*
 [AP cold pron.3SG.FEM_[Case:DAT]]
 b. *Merger of a ϕ -incomplete probe*
 [IP I_[ϕ :?] [AP cold pron.3SG.FEM_[Case:DAT]]]
 c. *Agreement between I and the quirky DP*
 [IP I_[ϕ :~~ACC~~] [AP cold pron.3SG.FEM_[Case:DAT]]]
 d. *Applications of Merge and Move*
 [VP v [VP long [CP for [TP pron.3SG.FEM_[Case:DAT] to be [IP I_[ϕ :~~ACC~~] [AP cold t]]]]]]
 e. *Movement and θ -assignment*
 [VP pron.3SG.FEM_[Case:ACC] [v' v [VP long [CP for [TP t to be ...]]]]]
 f. *Merger of a ϕ -complete probe*
 [TP T_[ϕ :?] not [VP pron.3SG.FEM_[Case:ACC] [v' v [VP long [CP for [TP t to be ...]]]]]]

⁶ (i) shows that the embedded predicate of (9) (under the intended meaning) assigns quirky dative to its subject.

(i) Mér er kalt.
 me.DAT is.3SG cold.DFLT
 'I am (feeling) cold.'
 (Sigurðsson 2008:408)

g. *Agreement between T and DP + movement*

[_{TP} pron.3SG.FEM_[Case:ACC] [T_{long} + T_[Φ:DEFN] not [_{vP} *t* [_{v'} *v* [_{VP} *t_{long}* [_{CP} for [_{TP} *t* to be . . .]]]]]]]]

h. [her._{ACC} longs._{DFLT} not for to be cold._{DFLT}]

After the pronoun merges with the adjective in (10a), it receives quirky Case; and after the I probe associated with adjectival predicates is merged (see (10b)), it enters into an agreement relation with the pronoun and its ϕ -features receive default values (see (10c)). The interesting step for the current discussion is the one after (10d) is assembled. The matrix light verb needs to assign its external θ -role and the embedded subject is still active for the computation, as it hasn't entered into an agreement relation with a ϕ -complete probe. As we noted earlier, assignment of a θ -role to an element marked with quirky Case obliterates the quirky specification previously established (see (8e)). Interestingly, the matrix light verb in (10) is also a quirky Case assigner. Thus, the previous quirky Case value is eliminated and the one associated with the θ -assignment of the matrix predicate (accusative) is specified, as seen in (10e). Further checking with finite T finally deactivates the Case feature of the moved pronoun and values the ϕ -features of T as default, as seen in (10g), which surfaces as (10h).

Three points should be emphasized here. First, the assumption that quirky Case on a DP blocks further θ -assignment is consistent with, but does not follow from, the MTC. Second, it is precisely an additional factor like this one that the MTC leads us to expect. Recall that the *only* significant difference between raising and control lies in the thematic properties of the relevant chains. Finally, given that quirky Case is intrinsically coupled with θ -marking, it is natural to assume that quirky Case assignment introduces complexities that simple θ -marking does not. In fact, as already noted in Thráinsson 1979, the earliest discussion of Icelandic quirky Case and control (called *Equi* in those long-lost days), quirky DPs are “reluctant participants in *Equi*” (p. 475) and this is why “*Equi* constructions are frequently rather bad when the deleted subject should have been an oblique [quirky]” (p. 301). Thráinsson cites examples whose translations seem unexceptionable in English but that were judged quite dicey by his interviewed speakers. His comments on the sentence in (11), which is “among the better” quirky-control cases, are worth quoting in full: “In a rather extensive survey involving 17 speakers of Icelandic (mostly teachers and students of Icelandic in fact) three found this sentence perfect, nine somewhat questionable, and five said it was bad” (p. 326).⁷

(11) Ég vonast til að vanta ekki efni í riterdina.

I hope P to lack not material for thesis.the
'I hope not to lack material for the thesis.'

(Thráinsson 1979; glosses added)

⁷ For similar reports on judgment fluctuations regarding control constructions involving quirky Case, see for example Sigurðsson 2008.

Any proposed analysis should have to address the issue of why so many speakers find these constructions marginal. Thráinsson (1979:301) suggests that part of the reason for the “reluctant” participation of quirky DPs in control sentences is that many control verbs “require a complement with an active or agentive subject and non-nominative [quirky] subjects are generally non-agentive.” However, this suggestion leaves unexplained the fact that the English translation of (11), for instance, is perfectly fine despite, we assume, having a thematic profile similar or identical to that of its Icelandic counterpart.

It should be clear that these empirical observations concerning the acceptability of quirky control clauses actually fit well with our proposal. We have assumed that it is the quirky Case marking rather than the θ -role associated with it that is causing the problem. Thus, we expect to find variation in judgments across languages (or even within the same language) regarding control sentences involving the same thematic relations, depending on whether or not θ -assignment is associated with quirky morphology. To our knowledge, no account save the MTC has much to say about these fine-grained distinctions.

In sum, by adding a natural assumption regarding θ -marking with quirky DPs, the MTC handles the contrast between raising and control perfectly well. In fact, the difference between the two with respect to the preservation of quirky Case morphology lies exactly where the MTC would lead us to look. A-movement in raising is related to ϕ -agreement/EPP and is therefore oblivious to θ -relations that the relevant DP may have participated in. By contrast, A-movement in control is motivated by thematic considerations and therefore may in principle be sensitive to thematically related issues.

3 Floating Quantifiers and Secondary Predicates

The second type of purported challenge for the MTC from Icelandic involves control configurations in which embedded floating quantifiers and secondary predicates display Case agreement morphology that differs from that of the controller in the matrix clause (see Landau 2003, Sigurðsson 2008, Bobaljik and Landau 2009). In the sentences in (12), for instance, the matrix subject bears (structural) nominative Case (see (12a)) and (quirky) accusative Case (see (12b)), but the secondary predicate in the embedded clause shows up with dative Case, which is the quirky Case assigned by the embedded verb.

(12) a. Jón vonast til að leiðast ekki einum/*einan/*einn.
 Jon.NOM hopes to to be.bored not alone.DAT/ACC/NOM
 ‘Jon hopes not to be bored alone.’
 (Boeckx and Hornstein 2006:596)

b. Bjarna langaði ekki til að leiðast einum/*einan/*einn.
 Bjarni.ACC wanted not to to be.bored alone.DAT/ACC/NOM
 ‘Bjarni wanted not to be bored alone.’
 (Boeckx and Hornstein 2006:596)

The reason why sentences like (12a–b) seem intriguing from the perspective of the MTC is that floating quantifiers and secondary predicates agree in Case and ϕ -features with the nominal

expression they modify, as illustrated in (13). The fact that the secondary predicates in (12) mismatch the Case of the matrix subject and exhibit the quirky agreement licensed by the embedded verb has been seen as indicating that the controller of the embedded agreement cannot be a trace/copy of the matrix subject, but should rather be a Case-marked PRO.

(13) a. Bræðurnir voru ekki báðir kosnir í atjórnina.
brothers.the.NOM.MASC.PL were not both.NOM.MASC.PL elected to board.the
‘The brothers were not both elected to the board.’
(Sigurðsson 2008:410)

b. Bræðrunum var báðum boðið á fundinn.
brothers.the.DAT.MASC.PL was both.DAT.PL invited.DFLT to meeting.the
‘The brothers were both invited to the meeting.’
(Sigurðsson 2008:410)

Once again, appearances are misleading and a close look at the relevant derivations promptly reveals the source of the Case dissimilarity between the matrix subject and the embedded secondary predicate. The derivation of (12a), for instance, is as sketched in (14) (using English words).

(14) a. *Merger between DP and the secondary predicate*
 $[J_{[\text{Case}:?]} \text{ alone}_{[\text{Case}:?; \phi:?]}]$

b. *Concord*
 $[J_{[\text{Case}:?]} \text{ alone}_{[\text{Case}:?; \phi:\text{MASC.SG}]}]$

c. *Merger of the verb + assignment of quirky Case*
 $[\text{VP be.bored} [J_{[\text{Case}:DAT]} \text{ alone}_{[\text{Case}:?; \phi:\text{MASC.SG}]}]]$

d. *Concord*
 $[\text{VP be.bored} [J_{[\text{Case}:DAT]} \text{ alone}_{[\text{Case}:DAT; \phi:\text{MASC.SG}]}]]$

e. *Applications of Merge and Move*
 $[\text{VP v} [\text{VP hope} [\text{CP C} [\text{TP J}_{[\text{Case}:DAT]} \text{ not to be.bored} t \text{ alone}_{[\text{Case}:DAT; \phi:\text{MASC.SG}]}]]]]]$

f. *Movement and θ -assignment*
 $[\text{VP J}_{[\text{Case}:?]} [\text{v}' \text{ v} [\text{VP hope} [\text{CP t not to be.bored} t \text{ alone}_{[\text{Case}:DAT; \phi:\text{MASC.SG}]}]]]]$


g. *Merger of a ϕ -complete probe*
 $[\text{TP T}_{[\phi:]} [\text{VP J}_{[\text{Case}:?]} [\text{v}' \text{ v} [\text{VP hope} [\text{CP t not to be.bored} t \text{ alone}_{[\text{Case}:DAT; \phi:\text{MASC.SG}]}]]]]]]$

h. *Agreement between T and DP + movement*
 $[\text{TP J}_{[\text{Case}:NOM]} [\text{T'} \text{ T}_{[\phi:\text{3SG}]} [\text{VP t hope not to be.bored} t \text{ alone}_{[\text{Case}:DAT; \phi:\text{MASC.SG}]}]]]]$

Assume that concord between floating quantifiers/secondary predicates and nominal expressions takes place under mutual c-command, valuing (and deleting for LF purposes) the uninterpretable features of the floating quantifiers/secondary predicates. If so, merger between the secondary predicate and the DP in (14a) allows the ϕ -features of the secondary predicate to be valued. Once a quirky Case assigner is introduced in (14c), it values the Case feature of *Jon* as dative, which in turn allows the secondary predicate to have its Case feature valued via concord (see (14d)).

Movement of *Jon* to the embedded Spec,TP in (14e) strands the secondary predicate. The crucial step is the next one. As discussed above, assignment of a θ -role to an element marked with quirky Case obliterates the previous quirky Case value. This is what happens in (14f) after *Jon* moves to receive the external θ -role of the matrix light verb. Finally, the moved subject agrees with a finite T and surfaces as nominative (see (14h)).

Notice that the derivation of (12b) is essentially identical to the derivation of (12a). The only relevant difference is that the matrix light verb is a quirky Case assigner and when it assigns its external θ -role to the moved subject, the previous quirky Case value is overwritten by the new one, as sketched in (15).

(15) a. *Merger between DP and the secondary predicate + concord*
 $[B_{\cdot[\text{Case:}?]} \text{ alone}_{[\text{Case:}?; \phi:\text{MASC.SG}]}]$

b. *Assignment of quirky Case*
 $[\text{VP be.bored } [B_{\cdot[\text{Case:DAT}]} \text{ alone}_{[\text{Case:}?; \phi:\text{MASC.SG}]}]]$

c. *Concord*
 $[\text{VP be.bored } [B_{\cdot[\text{Case:DAT}]} \text{ alone}_{[\text{Case:DAT}; \phi:\text{MASC.SG}]}]]$

d. *Movement and θ -assignment + quirky valuation*
 $[\text{VP } B_{\cdot[\text{Case:ACC}]} [\text{VP } v [\text{VP wanted } [C_P t \text{ not to be.bored } t \text{ alone}_{[\text{Case:DAT}; \phi:\text{MASC.SG}]}]]]]$

e. *Agreement with a ϕ -complete T + movement*
 $[\text{TP } B_{\cdot[\text{Case:ACC}]} [T' T_{\text{hope}} [\text{VP } t \text{ hope not to be.bored } t \text{ alone}_{[\text{Case:DAT}; \phi:\text{MASC.SG}]}]]]$

Let us pause for a moment to reconsider the valuation of the uninterpretable features of the secondary predicate in the derivations outlined in (14) and (15). Upon merger, the secondary predicate gets its ϕ -features valued by the corresponding features of the nominal expression it associates with, but not its Case feature. This has a straightforward explanation. The ϕ -features of the relevant nominal expression are interpretable and hence valued at every derivational step. Its Case feature, on the other hand, is uninterpretable and is unvalued upon merger with the secondary predicate. And only after it is valued can it value the Case feature of the secondary predicate under concord. In the derivations discussed, this happens after the embedded predicate assigns quirky Case to the nominal expression (see (14c–d) and (15b–c)).

Bearing this in mind, let us now consider instances where there is no quirky Case assignment in the embedded clause, as exemplified in (16).

(16) a. Bræðunum líkaði illa að vera ekki báðir kosnir.
brothers.the.DAT.MASC.PL liked ill to be not both.NOM.MASC.PL elected
'The brothers disliked not being both elected.'
(Sigurðsson 2008:410)

b. Ólaf langaði að fara einn í veisluna.
Olaf.ACC longed to go alone.NOM to party.the
'Olaf wished to go alone to the party.'
(Sigurðsson 2008:412)

In the absence of quirky Case assignment in the embedded clauses of (16), the floating quantifier/secondary predicate surfaces as nominative, regardless of the Case specification of the controller. Interestingly, Case valuation of the controller takes place *after* it leaves the floating quantifier/secondary predicate stranded. Consider the simplified derivation of (16b) given in (17), for instance.

(17) a. *Merger between DP and the floating quantifier + concord*
 $[O_{[\text{Case}:?]} \text{ alone}_{[\text{Case}:?; \phi:\text{MASC.SG}]}]$
 b. *Applications of Merge and Move*
 $[\text{vP } v [\text{vP } \text{longed} [\text{CP } C [\text{TP } O_{[\text{Case}:?]} \text{ to go} [t \text{ alone}_{[\text{Case}:?; \phi:\text{MASC.SG}]}]]]]]$
 c. *Movement and θ -assignment + quirky valuation*
 $[\text{vP } O_{[\text{Case:ACC}]} [v' v [\text{vP } \text{longed} [\text{CP } C [\text{TP } t \text{ to go} [t \text{ alone}_{[\text{Case}:?; \phi:\text{MASC.SG}]}]]]]]]$
 d. *Agreement with a ϕ -complete T + movement*
 $[\text{TP } O_{[\text{Case:ACC}]} [T' T_{[\phi:\text{dfl}]} [\text{vP } t \text{ longed } t \text{ to go} [t \text{ alone}_{[\text{Case}:?; \phi:\text{MASC.SG}]}]]]]]$

In (17), *Olaf* gets its Case valued with quirky Case after it moves to the matrix Spec,vP, leaving the stranded secondary predicate with its Case feature unvalued (see (17c)). We propose that in such circumstances, the Case of the secondary predicate or floating quantifier is assigned a default value in the morphological component (see Boeckx and Hornstein 2006). The default value for Case in Icelandic is nominative—hence the nominative specification on the floating quantifier and secondary predicate of (16) regardless of the Case value of the controller.⁸

To sum up, the dissimilarity between the features of the controller and an embedded floating quantifier or secondary predicate is not a problem for the MTC, contrary to what is frequently claimed. It in fact follows very naturally as a by-product of the dynamics of the derivation. Once quirky Cases are tied to θ -roles, assignment of a new θ -role to an element marked with quirky Case obliterates the quirky Case value previously specified. Thus, once a quirky-Case-marked element moves to a θ -position, its Case realization will be determined from that point on in the derivation, with no connection with the quirky agreement it had previously triggered.

4 Case Transmission

Bobaljik and Landau (2009) also claim that a movement approach to control structures in Icelandic of the sort proposed by Boeckx and Hornstein (2006) faces serious problems concerning Case

⁸ In their reply to Boeckx and Hornstein 2006, Bobaljik and Landau (2009:123) seem to take for granted that if the Case feature of a given element is assigned a default value, all ϕ -features on this element must also be assigned default values. However, this was not Boeckx and Hornstein's (2006) assumption, and indeed, numerous examples in the morpho-syntactic literature suggest that the various ϕ -features on an element can be valued independently (witness the literature on the Person-Case Constraint, where person and number/Case features are dissociated in terms of how they are valued; see for example Bonet 1991 and much subsequent work).

transmission. The claim involves two points: (a) the MTC cannot account for Case transmission from the matrix domain to the infinitival and (b) the MTC cannot account for the asymmetry between predicate nominals and passive participles, on the one hand, and floating quantifiers and secondary predicates, on the other, the former being more resistant to Case transmission than the latter.

Before we address these points, it is worth observing that there is general agreement in the literature that Case transmission in Icelandic represents an exceptional and nonuniform pattern. The following quotations from the two critiques of Boeckx and Hornstein 2006 illustrate this consensus: “I would like to stress that case transmission is a limited phenomenon” (Sigurðsson 2008:414); “As previous scholars have observed, the phenomenon of case transmission in Icelandic exhibits considerable interspeaker variation” (Bobaljik and Landau 2009:122); “The acceptability of ACC transmission in examples like [(18)] varies among speakers, as well as in the grammars of individual speakers, depending on a number of factors” (Sigurðsson 2008:414).

(18) Hún bað Ólaf að fara bara *einn/einan* í veisluna.
 she.NOM asked Olaf.ACC to go just alone.NOM/ACC to party.the
 ‘She asked Olaf to just go alone to the party.’
 (Sigurðsson 2008:414)

Recall from section 3 that default (nominative) assignment takes place when a given agreeing element in the embedded clause has its ϕ -features valued, but not its Case feature (see footnote 8). What the above quotations show is that a competing alternative strategy for specifying the Case feature of the embedded agreeing element is to copy the Case specification of the controller onto it. However, this alternative copying procedure is limited, marginal, and subject to a great deal of interspeaker variation in acceptability judgments. Does this present a problem for the MTC? None whatsoever. Every analysis of this possibility will have to say that it is marginal. Hence, the MTC can perfectly well assume that in addition to default nominative assignment, Case transmission may also take place (subject to the interference of several factors) if the Case feature of an embedded agreeing element has remained unvalued. In this regard, we fully agree with Sigurðsson (2008:414), according to whom “[t]here do not seem to be any semantic correlates of case transmission versus local nominative case, a fact that indicates that the optionality is a shallow morphological phenomenon, rather than a syntactic one.”

Once the independent issue of the competition between default nominative assignment and Case transmission is set aside, Sigurðsson (2008) mentions three generalizations that are worth discussing in the current context. First, it is easier for controllers bearing structural Case to transmit their Case to an embedded predicate than it is for controllers bearing quirky Case. For instance, Sigurðsson (2008:414–415) reports that out of 15 informants, structural accusative transmission in (18) was judged “OK” by 12 speakers, “?” by 2, and “*” by 1, whereas quirky accusative transmission in (19) was judged “OK” by 2, “?” by 2, and “*” by 11.

(19) Ólaf langaði að vera fyrstan.
 Olaf.ACC longed to be the.first.one.ACC

Second, although transmission of quirky dative is marginally possible, transmission of quirky genitive is never an option. For instance, out of Sigurðsson's 15 informants, (20a) was rated "OK" by 3, "?" by 3, and "*" by 9, whereas (20b) was judged "*" by 14.

(20) a. Ólafi fannst gaman að vera fyrstum.
 Olaf.DAT found pleasurable to be the.first.one.DAT
 (Sigurðsson 2008:415)

 b. *Við kölluðum til Ólafs að vera rólegs.
 we shouted on Olaf.GEN to be calm.GEN
 'We shouted to Olaf to be calm.'
 (Sigurðsson 2008:416)

Third and most important, Case transmission never applies if the embedded predicate is a quirky Case assigner (Sigurðsson 2008:414), as illustrated in (21), where the embedded predicate assigns quirky dative.

(21) Jón bað Bjarna að leiðast ekki einum/*einan/*einn.
 Jon.NOM asked Bjarni.ACC to be.bored not alone.DAT/ACC/NOM
 'Jon asked Bjarni not to be bored alone.'
 (Boeckx and Hornstein 2006:596)

The absolute impossibility of Case transmission or default specification in (21) contrasting with the various degrees of acceptability of (18), (19), and (20a) is exactly what our proposal predicts. Recall that when quirky Case assignment is available in the embedded clause, the nominal expression bearing quirky Case is able to enter into agreement/concord relations and value the Case and ϕ -features of the agreeing elements around (see (14d) and (15c)). This is what happens in sentences like (21), as sketched in (22). Hence, Case transmission is blocked in sentences like (21) because the secondary predicate already has its Case feature valued (see (22d)).

(22) a. *Merger between DP and the secondary predicate*
 [B._[Case:?:] alone_[Case:?:; ϕ :?]]
 b. *Concord*
 [B._[Case:?:] alone_[Case:?:; ϕ :MASC.SG]]
 c. *Merger of the verb + assignment of quirky Case*
 [_{VP} be.bored [B._[Case:DAT] alone_[Case:?:; ϕ :MASC.SG]]]
 d. *Concord*
 [_{VP} be.bored [B._[Case:DAT] alone_[Case:DAT; ϕ :MASC.SG]]]

By contrast, the agreeing elements in the embedded clauses of (18)–(20) do not have their Case feature valued in the syntactic component. This then leaves the door open for competing morphological strategies (default nominative assignment or long-distance Case copying). If Case transmission is a morphological process, as we are assuming here, it is not surprising that it is subject to a variety of morphological factors, including sensitivity to type of Case (structural as

in (18) vs. quirky as in (19)) and to specific Case values, as the contrast between dative and genitive in (20) illustrates.⁹

In sum, despite the murky status of quirky Case transmission, which arguably results from the complexities inherently associated with quirky morphology, the MTC makes the correct empirical cuts with respect to when Case transmission is forbidden and when it is allowed. Impossible cases of Case transmission or default specification as in (21) are accounted for in syntactic terms: the relevant Case feature has already been valued in the syntactic component. In the absence of such valuation in the syntactic component, Case specification is determined in the morphological component by either default nominative assignment or Case transmission, the latter being subject to a considerable degree of variation regarding the acceptability of the output.

Let us finally return to the issue of why passive participles and nominal predicates are more resistant to Case transmission than floating quantifiers and secondary predicates. The proposal

⁹ The data in (18)–(20) point to a stronger conclusion than the one outlined in the text: transmission of structural Case is grammatical while transmission of quirky Case is not. Sigurðsson's (2008) numbers bear this out. As mentioned above, of 15 speakers queried, 12 found structural accusative Case transmission in (18) to be perfect, 2 found it marginal, and 1 found it unacceptable. The results are reversed for quirky accusative Case transmission in (19), which 11 found unacceptable, 2 found marginal, and 2 found acceptable. For other quirky Cases, the numbers are yet more definitive: dative in (20a) is marginal at best (rated “OK” by 3, “?” by 3, and “*” by 9), and genitive in (20b) is impossible (rated “*” by 14). The overall picture, then, is that structural Case transmits in control structures while quirky Case does not.

This empirical profile fits the expectations of the MTC very well. In effect, when structural Case is at issue, the profile is that of a raising predicate, with Case determined by the target. As regards quirky Case, it looks like speakers pretty consistently reject its transmission. Why should this be so? Why the asymmetry in transmission of quirky and structural Case? The distinction surely stems from the difference in valuing structural and quirky Case. Consider how: in the classical minimalist framework (e.g., Chomsky 1993), structural Case is checked whereas quirky Case is assigned. A checked Case can leave a residue of Case agreement in its tracks, as it has its Case value on insertion. An assigned Case can only begin to have effects after assignment has taken place; before that, it is not associated with the relevant DP. The latter assumption suffices to explain the asymmetry in structural and quirky Case transmission if inherent Case and θ-marking go in tandem.

This early minimalist account has been replaced by one in which Case is the by-product of φ-feature valuation (e.g., Chomsky 2001). However, the distinction between getting a Case in tandem with θ-assignment and getting one with φ-feature valuation still holds. The particular Case of a structurally Case-marked DP is specified in the morphology but the dependencies that determine this Case value are established in the syntax. More particularly, structural Case is a by-product of Agree relations applying to all occurrences/copies of the same DP, while quirky Case is a by-product of θ-assignment and arises only under the local configurations characteristic of θ-marking. This suffices to resurrect the logic outlined above in the context of classical minimalism. Thus, under current assumptions the distinctions we find in Case inheritance in structural and quirky contexts fit well with the dynamics of Case assignment given the MTC. Structural Case travels. Quirky Case does not.

One question remains: if structural Case can be inherited, why does default nominative Case ever get used in structural-Case-marking contexts? Note, this is not a problem when quirky Case is at issue: the latter is not available in embedded contexts when assigned in a higher clause, so default Case can be motivated on morphological grounds. However, why should it also be available when structural Case can apply? We do not know. However, here is one conjecture using phase-based logic. In the context of phases, the MTC requires either that the C⁰ head of a control complement be a weak phase head, like v⁰ in passives and unaccusatives, or that the phase edge of control clauses be accessible to the moving DP. It is not implausible that such phases complicate the transmission mechanism sufficiently to make default Case assignment a better or equally acceptable alternative. In other words, the fact that transmission takes place across a C head in cases of control complicates the transmission process and allows for alternative Case specification mechanisms to be viable. Thus, both are viable options, one via the movement structure generated and the other via the default mechanism that finds an opening owing to the added difficulty of Case transmission over C boundaries. However, the Case transmission option, though somewhat costly, is only available for structural Case for the reasons outlined above.

we have explored here actually resorts to a commonly assumed distinction between these two classes of agreeing elements that is very suggestive. Floating quantifiers and secondary predicates may have their features valued via concord with the nominal expression they relate to, arguably under mutual c-command. By contrast, the I heads associated with participial agreement and agreement in nominal predicates have their features valued under a probe-goal relation, which involves asymmetric c-command. It is not implausible that this distinction may have some bearing on their different behavior under Case transmission. The trace/copy of a moved DP remains in a local mutual c-command relation with respect to stranded quantifiers and secondary predicates, but in a nonlocal asymmetric c-command relation with respect to the probe associated with agreement in passive participles and nominal predicates. If locality is among the several factors that influence Case transmission, it could be that elements in a local relation with the trace of the controller are better candidates to undergo Case transmission than elements that are not in a local relation.

We leave further elaborations on this suggestion for another occasion. Our main goal in outlining it here is just to illustrate that the purported problem for the MTC is actually a question about computations in the morphological component and is completely orthogonal to the question of whether the MTC can account for quirky control in Icelandic. Whether this suggestion is incorrect may be of interest, but in no way does it invalidate the MTC. This is another example of an unfortunately recurrent pattern: the MTC is claimed to be false because it does not have an account for empirical facts that have no bearing on its tenets.

5 The Absence of Phonetic Subjects in Control

Contrary to what Bobaljik and Landau (2009) (and Sigurðsson (2008)) claim, the MTC also has a very simple explanation for why control infinitives in Icelandic cannot license an overt subject, as illustrated in (23).

- (23) a. *Jón vonast til [hann/Eiríkur að verða ráðinn].
Jon.NOM hopes for he/Eric.NOM to be hired.MASC.SG.NOM
'John hopes for him(self)/Eric to be hired.'
(Jónsson 1996, reproduced in Bobaljik and Landau 2009:125)
- b. Ég bað Maríu [að (*hún/*Ásta) fara ein þangað].
I asked Maria.ACC to she/Asta.NOM go alone.FEM.SG.NOM there
'I asked Maria (for her/Asta) to go there alone.'
(Thráinsson 1979, adapted in Bobaljik and Landau 2009:125)
- c. 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.'
(Zaenen, Maling, and Thráinsson 1985, adapted in Bobaljik and Landau 2009:126)

Since there is no local ϕ -complete probe in the embedded clause of (23a) and (23b), the embedded subject does not have its Case valued and the derivation crashes. By contrast, in (23c) the embedded

subject is valued with quirky Case. However, in order to be licensed, the element bearing quirky Case needs to agree with a ϕ -complete probe and there is no such element within the embedded clause; hence, the derivation of (23c) also crashes.

Note that this *very same reasoning* explains the absence of overt subjects in infinitival raising complements.

(24) a. *Pað virðist [mig vanta peninga].
 it seems me.ACC to.lack money
 'It seems that I lack money.'
 b. *Pað var talið [mig vanta peninga].
 it was believed me.ACC to.lack money
 'It was believed that I lack money.'

We believe that this orthodox account has a lot to recommend it. The reasoning above is quite simple: no Case licensing, no convergence. The account is clearly continuous with previous Government-Binding accounts stemming from Vergnaud 1977, and it is widely accepted by thoroughly modern minimalists as well. However, it is worth noting that though we find the proposal congenial (and largely correct), it actually delivers more than the MTC requires. The MTC takes control to be an instance of A-movement, just like raising. If this is correct, then *whatever makes a copy phonetically invisible in raising will also account for the fact that the A-copy is phonetically absent in control as well*. This suffices to explain the phonetic commonalities between control and raising. The above account provides a theory of why A-copies are not pronounced, and a good theory it is on our view. However, even were there no theory of *why* this is so, that it *should be so* follows immediately from the MTC. If PRO is a residue of A-movement, then it should have all the properties of A-traces, foremost among which is being phonetically null. Thus, even if Case is the wrong theory for (23) and (24), the MTC predicts that PRO is phonetically null.¹⁰

¹⁰ In fact, this is the general case. With the revival of the copy theory within minimalism, it has been argued that under certain circumstances traces (i.e., lower copies) can indeed be pronounced instead of or in addition to the head of the chain (see Bošković and Nunes 2007, Nunes, forthcoming; and, for an overview, Corver and Nunes 2007). In the domain of control, these two theoretical possibilities are materialized by instances of backward control, as illustrated in (i) (see, e.g., Polinsky and Potsdam 2006), and copy control, as illustrated in (ii) (see, e.g., Haddad 2007, Boeckx, Hornstein, and Nunes 2008). Needless to say, the existence of backward and copy control poses a very tough challenge for PRO-based theories of obligatory control.

(i) *Tsez*
 $[\Delta_{1/*2} [kidbə_1 ziya_2 bišra_3 yoqsi]]$.
 girl.ERG COW.ABS feed.INF began
 'The girl began to feed the cow.'
 (Polinsky and Potsdam 2002:261)

(ii) *San Lucas Quiaviní Zapotec*
 R-càaa'z Gye'eihly g-auh Gye'eihly bxaady.
 HAB-want Mike IRR-eat Mike grasshopper
 'Mike wants to eat grasshopper.'
 (Lee 2003:102)

Note that sentences like (23a–c) are in fact quite problematic for approaches that take the morphological facts reviewed above to indicate that control infinitives in Icelandic license a PRO marked with structural or quirky Case. The main problem is that they cannot exploit the standard account provided above for the fact that (23a–c) are ungrammatical. All in all, it seems that approaches that take control infinitives to license a PRO marked with “regular” Case are as stipulative as the null Case approach (see Chomsky and Lasnik 1993, Martin 2001). At the end of the day, PRO is specified as being licensed by a peculiar kind of Case or by a particular diacritic feature, one that can license no other nominal expression.

6 Concluding Remarks

This reply began with two claims: (a) that no current theory of control can accommodate the full range of Icelandic facts without alteration and (b) that a slightly augmented MTC is consistent with (indeed, supported by) the quirky Case facts. To recap our argument: The MTC proposes that PRO is a residue of A-movement and that it has all the properties of an A-trace. It also claims that control should pattern with classical A-movement constructions like raising modulo the thematic properties of the constructions. Icelandic, we have argued, is consistent with this once we make provision for its rich agreement morphology and its distinctive quirky Case properties. Quirky Case is intimately tied to θ -structure and so it is expected to add an extra dimension of complexity to the grammar of Icelandic control. Our proposal is that the key additional complication concerns how quirky DPs interact with θ -marking. We also assume that Icelandic has a morphological operation for valuing otherwise unvalued features with nominative Case. The latter is not an assumption novel to this analysis. With these two assumptions specific to the idiosyncrasies of Icelandic, the MTC allows a clean analysis of the Case facts noted since Thráinsson 1979. In sum, though interesting, these facts are not particularly problematic for the MTC. Indeed, we are inclined to take a stronger position than this: it is currently the only account that addresses all the relevant data! It would behoove those who find the MTC wanting to outline in some detail an account of these phenomena using their favorite theory of control. We are confident that once this is done, the virtues of the MTC will shine forth more clearly still.

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(Boeckx)

ICREA & Centre de Lingüística Teòrica

Universitat Autònoma de Barcelona

Departament de Filologia Catalana

Edifici B, Campus UAB

08193 Bellaterra

Spain

Cedric.Boeckx@uab.cat

(Hornstein)

University of Maryland

Department of Linguistics

1401 Marie Mount Hall

College Park, MD 20742

nhornste@umd.edu

(Nunes)

Universidade de São Paulo

Departamento de Lingüística

Av. Professor Luciano Gualberto, 403

05508-900 São Paulo, SP

Brazil

jmnunes@usp.br