

# A Taxonomy of Agreement in Icelandic: Agree vs Multiple Agree, Syntactic vs Post-Syntactic

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This paper provides an analysis of agreement in Icelandic constructions containing passive participles (PPs), floated quantifiers (FQs), or secondary predicates (SPs) in both finite and non-finite clauses. Initially used to argue that structural case is assigned in Icelandic control infinitives (Sigurðsson 1991/2008, a.o.), PPs/FQs/SPs have played a crucial role in the recent control-as-movement debate (Boeckx&Hornstein 2006, Boeckx, Hornstein&Nunes 2010, Bobaljik&Landau 2009, Sigurðsson 2008). While I do not weigh in on that discussion, I both incorporate and challenge aspects of movement and non-movement approaches. I use the disparate behavior of agreement in PPs, FQs, and SPs to make two distinctions with respect to case assignment. First, I argue that structural case assigning heads enter into a Multiple Agree relation in PPs, while non-structural case assigning heads do not. Second, I argue that PP and FQ agreement is established in the syntax, whereas SP agreement is established via post-syntactic feature copying. I show that this post-syntactic analysis accounts for agreement patterns that pose a challenge for any account, namely optionality in SP agreement in control infinitives. In line with non-movement accounts, I argue that Icelandic control clauses constitute an independent domain for case assignment: PRO bears case. However, I argue that this domain is limited to case that is established in the narrow syntax. In line with movement accounts, I argue that case may be established in a domain which includes the matrix clause. However, this broader domain is only accessible for features that are determined post-syntactically.

As has been well-documented, agreement in Icelandic PP constructions is sensitive to the division between structural and non-structural case. In (1a), the participle agrees with the subject, while in (1b), the participle appears in the default Nominative singular neuter form. Following B&H (2006), I argue that agreement in (1a) is the result of Multiple Agree (Hiraiwa 2001). As shown in (2a), T probes the object before movement to Spec,TP, and also probes the participle because it is a verbal element. While T mediates the relationship between the participle and the Nominative DP in (2a), I argue that Multiple Agree cannot apply in (2b), contra B&H (2006). Assuming that non-structural case is assigned by a special *v* head (Legate 2008, McFadden 2004, Woolford 2006, a.o.) *v*<sub>Dat</sub> probes the object before movement. However, *v*<sub>Dat</sub> does not probe the participle. As in (2a), T probes the participle in (2b). Since T does not mediate the relationship between verbal items and DPs bearing non-structural case, the participle surfaces with default phi feature values.

While B&H (2006) propose that agreement in FQ/SP also involves Multiple Agree, I argue that it does not. As shown in (3) and (4), FQ/SP agreement does not display a contrast between structural and non-structural case. I follow that standard account for (3) (Sigurðsson 2008, a.o.) in which the subject is merged inside the DP containing the FQ, and then moves to SpecTP, stranding the quantifier. Crucially, in (3), a case-assigning head probes the subject DP in the narrow syntax. By contrast, a case-assigning head does not probe the SPs in (4). The SP is not an argument of the verb, nor is it a verbal element. I argue that SP agreement in (4) is established via post-syntactic feature copying. Much recent work argues that all case and phi features are determined post-syntactically (Bobaljik 2008, McFadden 2004, Sigurðsson 2006/2008). However, I argue that case that is assigned by a head is established in the syntax, while case that is shared between two phrases or shared between items within a phrase is determined post-syntactically. In (4), there is a *pro* inside of the small clause/adjective phrase coindexed with the subject, and at spell-out *pro* copies the case of the DP sharing its index.

This proposal allows us to explain optionality in SP agreement in infinitives. In (5), PRO and the controller are assigned case in the syntax –in line with non-movement accounts – and the embedded SP can agree with either DP. While in (4), *pro* is coindexed with only the subject DP, in (5) *pro* is coindexed with both PRO and the controller. At spell-out, *pro* copies the case of PRO, the closest DP that shares an index with *pro*, and the adjective bears Nominative, as shown in (5b). Since *pro* also shares an index with the controller, *pro* optionally copies the case of the controller, and the SP bears the last case that is copied, as shown in (5c). This is line with the movement accounts, in which a DP may have more than one case. The crucial difference, however, is that on my account, case-stacking is restricted to case not assigned by a head and in which there is multiple coindexation. There is not optionality in (4) because only the subject is coindexed with *pro*.

Notably, the optional copying of the controller's case can only apply if PRO bears structural case, as shown in (6b). In (6a) PRO bears non-structural case, and the case of the controller is not allowed. This proposal is in line with the widely-established observation that non-structural case in Icelandic is preserved (in A-movement, for instance) and supports Sigurðsson's (2008) observation that structural case can be "overwritten by the case of the controller" but non-structural case cannot (p.414). My proposal makes the prediction that FQ and PP agreement in control clauses do not display optionality, since case is assigned in the syntax. This prediction is confirmed. In (7), non-finite T probes the subject DP (before PRO moves to Spec,TP) and the PP.

To summarize, FQ/PP agreement is syntactic. In FQ, a structural or non-structural case-assigner probes the subject DP, and the quantifier agrees with the subject. In PP, a structural case assigner probes the participle and the DP, resulting in agreement. A non-structural case assigner probes only the DP, resulting in the default form of the PP. SP agreement is post-

syntactic. The features of PRO are necessarily copied and the features of the controller are optionally copied when PRO bears structural case.

- (1) a. Strákarnir voru aðstoðaðir/\*aðstoðað  
boys.the.Nom were.3pl aided.Nom.pl.masc/\*default  
'The boys were aided.'  
b. Strákunum var hjálpað  
boys.the.Dat was.3sg helped.default  
'The boys were helped.' (B&H 2006, ex2-3)
- (2) a. T part DP<sub>Nom</sub> =(1a)  
b. T [<sub>VP</sub> V<sub>Dat</sub> part DP<sub>Dat</sub>] =(1b)  
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- (3) a. Bræðurnir voru ekki báðir kosnir í stjórnina.  
brothers.the.Nom were not both.Nom.masc.pl elected.Nom.masc.pl to board.the  
'The brothers were not both elected to the board.'  
b. Bræðrunum var báðum boðið á fundinn  
brothers.the.Dat was both.Dat.masc.pl invited.default to meeting.the  
'The brothers were both invited to the meeting.' (Sigurðsson 2008, EX17)
- (4) a. Ólafur fór einn í veisluna  
Olaf.Nom went alone.Nom.masc.sg to party.the  
'Olaf went alone to the party.'  
b. Ólafi leiddist einum í veislunni  
Olaf.Dat was.bored alone.Dat.masc.sg in party.the  
'Olaf was bored alone in the party.' (Sigurðsson 2008, ex20)
- (5) a. Hún bað Ólaf að PRO fara bara einn/einan í veisluna.  
she.Nom asked Olaf.Acc to Nom go just alone.Nom/Acc to party.the  
'She Olaf to just go to the party alone.' (Sigurðsson 2008, ex26)  
b. [controller<sub>i</sub>-Acc [ PRO<sub>i</sub>-Nom [<sub>AP</sub> pro<sub>i</sub> Adj-Nom]]] case of PRO copied  
c. [controller<sub>i</sub>-Acc [ PRO<sub>i</sub>-Nom [<sub>AP</sub> pro<sub>i</sub> Adj-Acc]]] case of PRO copied, case of controller copied, last case copied surfaces
- (6) a. \*Við báðum hana að PRO verða ekki illa í maganum.  
we.Nom asked her.Acc to Dat be not bad.Acc in stomach.the  
'We asked her to not get a stomachache.' (Sigurðsson 2008, ex29b)  
b. [controller<sub>i</sub>-Acc [ PRO<sub>i</sub>-Dat [<sub>AP</sub> pro<sub>i</sub> Adj]]]  
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- (7) Bræðrunum líkaði illa að PRO vera ekki báðir/\*báðum kosnir/\*kosið.  
brothers.the.Dat liked ill to Nom be not both.Nom/\*Dat elected.Nom/\*default  
'The brothers disliked not being both elected.' (based on Sigurðsson 2006, ex27 and Sigurðsson 2008, ex18a)

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