Resolution by Case Syncretism in Icelandic Passives[*]

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1. Introduction

Typically, passive formation in Icelandic involves a predictable case alternation: when a transitive verb is passivized, the accusative theme can move to the subject position and become nominative; the participle agrees with the theme.

(1)   a.   Ég drakk **einn öllara**.   b.   **Einn öllari**   var **drukkinn**.
          I   drank one beer.M.ACC   one   beer.M.NOM was drunk.M.NOM

However, when a ditransitive with a reflexive indirect object is passivized, neither argument moves to the subject position and the participle shows default agreement. Furthermore, the case of the theme varies across speakers (see Snorrason 2021).

(2)   Þau   fengu sér   öllara.
      they   got   REFL.DAT beer.M.ACC
      'They got themselves a beer.'   →

	A	B	C	D
a. Það var fengið sér **öllari**. EXPL was gotten.DFLT REFL.DAT **beer.NOM**	✓	*	*	*
b. Það var fengið sér **öllara**. EXPL was gotten.DFLT REFL.DAT **beer.ACC**	*	✓	*	*
c. Það var fengið sér **bjór**. EXPL was gotten.DFLT REFL.DAT **beer.NOM/ACC** 'People got themselves a beer.'	✓	✓	✓	*

There are two crucial observations which can be drawn from the data in (2). First, there is no single, standardized way to passivize ditransitives with a reflexive indirect object. In

fact, some speakers cannot passivize such sentences at all. Second, in Grammar C, this passive is only possible when the noun is syncretic between nominative and accusative.

In this paper, we develop an analysis of the rescue-by-syncretism effect in Icelandic which supports a modular view of case assignment. We propose that the DP object in the reflexive passive cannot get nominative or accusative case the way it normally does. Instead, the Appl head that introduces the reflexive "cuts the object off" from the rest of the structure. This gives rise to either (i) PF deletion of an unvalued case feature which leads to morphological nominative or accusative, or (ii) a linearizationconflict which can only be resolved with a single (syncretic) form. Absence of PF deletion or Fission leads to ungrammaticality. Our account requires syntax and (post-syntactic) morphology to each play a role in the valuation of a decomposed set of case features. Thus, the syncretism effects arise even though the syntax has no direct access to morphological case form.

This paper is structured as follows. First, we discuss Icelandic passives and show how we derive case assignment in the canonical passive and the passive of ditransitives. We then argue that the reflexive passive is an inaccessible phase which prevents normal case assignment. Next, we derive morphological nominative or accusative resolution with PF deletion, but not the syncretism effect. Instead, we propose an explanation based on Fission and linearization conflicts. Finally, we discuss why another Icelandic passive construction, the New Impersonal Passive, does not show similar syncretism effects.

2.   Icelandic passives and phase-based case assignment

2.1   Canonical passive

Icelandic has four cases. Nominative and accusative are often referred to as structural cases, in part because they alternate in active-passive pairs, as already illustrated in (1). Dative and genitive are often referred to as lexical cases, in part because they are preserved in the passive. We adopt Müller's (2005) decomposition of case features shown in (3)–(4). In this decomposition, the structural cases are both [–n,–obl]. They are distinguished by [±v]: Nominative is [−v] and accusative is [+v]. This simple distinction between the two structural cases plays an important role in passive formation.

(3)   `[-n,-v,-obl]` (NOM)   (4)   `[-n,+v,+obl]` (DAT)
       `[-n,+v,-obl]` (ACC)   `[+n,+v,-obl]` (GEN)

Following (the spirit of) E.F. Sigurðsson (2017), we propose that structural case assignment involves two steps: (i) **Agree** determines either nominative or accusative, and (ii) **Dependent case** chooses between them. We follow Harbour's (2008b, 2011) conception of valuation in Agree (5).

(5)   A feature F on a head H is unvalued if that head contains both [+F] and [−F].

In Harbour's system, valuation does not *add* features: it amounts to *reducing* the set until there are no contradictory features. In the syntax, DPs initially have unvalued case features,

i.e. a full set of case features: $\{[+n,-n][+v,-v][+obl,-obl]\}$. In order to get a value for a particular case, the set must be reduced so that only those features remain (e.g. $[-n,-v, -obl]$ for nominative). We propose that case-feature valuation is done in part by Agree. In both active and passive, *v* assigns *structural* case to the DP, which amounts to removing the features $[+n]$ and $[+obl]$ (7).

(6)   **Case Assignment by Agree**

    a.   A head that assigns case has the case features it assigns.
    b.   Case assignment in the syntax is Valuation under Agree.

(7)   **v assigns structural case in Active (1a) and Passive (1b)**

    a. $[_{vP}\ v_{[-\mathbf{obl},-\mathbf{n}]}\ \ldots\ DP_{[+v,-v][+n,-\mathbf{n}][+obl,-\mathbf{obl}]}\ ] \rightarrow$
               ↑＿＿＿＿＿＿＿＿＿＿＿＿↑
                   Agree
    b. $[_{vP}\ v_{[-obl,-n]}\ \ldots\ DP_{[+v,-v][-n][-obl]}\ ]$

Traditionally, in Dependent Case Theory (DCT), the distinction between NOM ($[-v]$) and ACC ($[+v]$) is determined by a post-syntactic disjunctive hierarchy, as in (8a–b).

(8)   **Dependent Case Algorithm**: For a non-oblique DP_2 which is $[+v,-v]$

    a. $DP_{[+v,-v]} \rightarrow DP_{[+v]}\ /\ [_{XP}\ DP_{[-n,-obl]}\ [\ \ldots\ \_\_\ ]]$ **=Dependent accusative**
    b. $DP_{[+v,-v]} \rightarrow DP_{[-v]}\ /\ [_{TP}\ T\ [\ \ldots\ \_\_\ ]]$ **=Environment-sensitive nominative**

These rules are ordered and disjunctive. They can be read as 'Assign $[+v]$ (ACC) in the context of a c-commanding non-oblique DP_1; otherwise assign $[-v]$ (NOM) in the context of T'. One crucial difference between our proposal and traditional DCT arises when neither nominative nor accusative case applies. In traditional DCT, the DP would get an "elsewhere" default case. In our proposal, this is not available because two case features have already been valued. As we will see, the result in this circumstance is ungrammaticality.

2.2   Passive of ditransitives

Canonical ditransitive passives in Icelandic allow dative indirect objects or accusative direct objects to move to the subject position. When the active ditransitive in (9a) is passivized, the DP with structural case is nominative, but the dative is still dative (9b–c).

(9)   a.   Hún   gaf börnunum   spilastokk   í jólagjöf.
        she.NOM gave children.the.DAT cardbox.M.SG.ACC in Christmas.gift
        'She gave the children playing cards for Christmas.'
    b.   **Spilastokkurinn**   *var gefinn*   börnunum   í jólagjöf.
        cardbox.the.M.SG.NOM was given.M.SG children.the.DAT in Christmas.gift
        'The playing cards were given to the children for Christmas.'
    c.   **Börnunum**   *var gefinn* spilastokkur   í jólagjöf.
        children.the.DAT was given.M.SG cardbox.M.SG.NOM in Christmas.gift
        'The children were given playing cards for Christmas.'

Building on our model of case assignment, we propose that case domains are derived from *phases*, and that *phase extension* can determine whether a DP is visible for case assignment. For ditransitives, we assume the structure in (10).

(10) $[_{CP}$ $C_{\Phi 3}$ $[_{TP}$ T $[_{VoiceP}$ DP_1 $Voice_{\Phi 2}$ $\boxed{[_{vP}$ v $[_{ApplP}$ DATIVE $Appl_{\Phi 1}$ $\mathbf{DP_2}$ $]]}$ $]]]$

We adopt three key assumptions about phases. First, C, Voice and low Appl are generally phase heads (Φ) in Icelandic.[1] Second, a phase is spelled out when the next phase is merged (PIC_2; Chomsky 2001). Third, Low Appl can extend its phase by head-moving to v, then to Voice (den Dikken 2006, 2007; Wood and H.Á. Sigurðsson 2014) (otherwise, DP_2 and DP_1 would be in different spell-out domains). This derives (11) from (10).

(11) $[_{CP}$ $C_{\Phi 3}$ $\boxed{[_{TP}$ T $[_{VoiceP}$ DP_1 $Appl/v/Voice_{\Phi 1/\Phi 2}$ $[_{vP}\langle t\rangle$ $[_{ApplP}$ DAT $\langle t_{\Phi 1}\rangle$ $\mathbf{DP_2}$ $]]]]}$ $]$

In our Dependent Case Algorithm, with these phase-based domains, DP_2 is potentially sensitive to DP_1 or T. Since dependent accusative applies first, DP_2 is assigned [+v]. Canonical passive ditransitives, as in (9b–c), also have phase extension, as shown in (12).

(12)   a. $[_{CP}$ $C_{\Phi 3}$ $[_{TP}$ T $[_{VoiceP}$ $Voice_{\Phi 2}$ $\boxed{[_{vP}$ v $[_{ApplP}$ DATIVE $Appl_{\Phi 1}$ $\mathbf{DP_2}$ $]]}$ $]]]$ $\rightarrow$

          b. $[_{CP}$ $C_{\Phi 3}$ $\boxed{[_{TP}$ T $[_{VoiceP}$ $Appl/v/Voice_{\Phi 1/\Phi 2}$ $[_{vP}\langle t\rangle$ $[_{ApplP}$ DAT $\langle t_{\Phi 1}\rangle$ $\mathbf{DP_2}$ $]]]]}$ $]$

In this case, however, the theme is the only unmarked DP, so it can't be accusative. Phase extension of Appl makes T visible to its complement, so the object DP in passives is assigned nominative case ([−v]). With the case assignment procedure for ditransitives in place, we turn to case assignment for the reflexive passive.

3.   Reflexive passive as an inaccessible phase

We now show how the reflexive passive gives rise to a unique configuration for case assignment. Recall from (2) that when the dative of a ditransitive is a simplex reflexive in Icelandic, there is no single, standardized way to passivize it: some speakers allow accusative, others allow nominative, and for others it is simply ungrammatical. No matter what the case a speaker prefers, speakers generally do not allow the normal participle agreement, not even with the nominative (notice the default participle form in all of (2a–c)); see, however, Thráinsson et al. (2013:58). Even more puzzling, some speakers only accept the reflexive passive if the object is syncretic for nominative and accusative. We propose that the key to the syncretism puzzle lies in the answer to the question: Why is there case variation in the passive of reflexive ditransitives to begin with?

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[1]Wood (2015) argues that Icelandic has no "high" Appl head in the sense of Pylkkänen (2008).

We assume that reflexive ditransitives are built by a special kind of Appl head (see Wood and Zanuttini 2018, Wood 2023). This Appl head *cannot undergo head movement*, and thus cannot extend the ApplP phase as in the canonical passive ditransitive (13).[2]

(13) $[_{CP} C_{\Phi 3} [_{TP} T [_{VoicePassP} Voice_{\Phi 2}$ $\boxed{[_{vP} v [_{ApplP} \text{REFL.DAT} Appl_{\Phi 1} \textbf{DP}_2]]}$ $]]]$

Because there is no phase extension, the direct object DP_2 in (13) *qualifies for neither* $[+v]$, as there is no local, unvalued DP, *nor* $[-v]$, as DP_2 is not local to T. This is the central characteristic of this construction: DP_2 is spelled out as $[+v,-v][-n][-obl]$. But Icelandic DPs *must have* non-contradictory case features in order to be pronounced. We propose that some of the speaker variation is accounted for by deleting one of the contradictory features. Grammar A deletes $[+v]$, resulting in nominative (NOM). Grammar B deletes $[-v]$, resulting in accusative (ACC). In order to see how syncretism effects arise, we first discuss our basic system of spellout.

4.   The System in a Nutshell

We adopt a Distributed Morphology (DM) model of spellout, which has several stages.

(14)   **Spellout Mechanisms**
         a.   Build Syntax Tree
         b.   Manipulate Tree
         c.   Map to Linearization Statements
         d.   Manipulate Linearization Statements
         e.   Vocabulary Insertion

Our model is mostly standard in DM, but there are a few details worth emphasizing, and at least one crucial innovation that we adopt from Soares (2023). We follow the analysis of Icelandic noun inflection in Müller (2005) (with some simplifications due to space).[3]

We illustrate with the Weak Masculine Noun *öll-ar-i* 'beer' in the nominative. First, we assume that *öllari* 'beer' has the following syntactic structure (15).

(15)

$$n$$
$$n \qquad n_{Infl}$$
$$\sqrt{\text{ÖL}} \quad n \qquad [-v,-n,-o]$$

In this example, there is no necessary manipulation of the syntax tree, but this could include Lowering, M-Merger, Fission, etc. (anything that manipulates the nodes of the tree). The next step would be to map the tree onto a set of linearization statements (16).

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[2]In the passive, head movement creates problems for the reflexive interpretation due to the lack of a syntactic antecedent, and movement of the DP object past the reflexive is impossible for similar reasons. See Schäfer (2012) for discussion of how passives of reflexives are interpreted.

[3]Some details will differ, for example the way that we treat Fission. However, the analysis, in terms of what the VIs are and what features they realize, will be the same.

(16)   **List of Linearization Statements**: $\{\langle\sqrt{\text{ÖL}},[\text{n}]\rangle, \langle[\text{n}],n_{\text{Infl}}[-\text{v},-\text{n},-\text{o}]\rangle\}$

We crucially adopt the assumptions about linearization statements shown in (17).

(17)   a.   The order pair corresponds to *Immediate Precedence*.
        b.   These are a **set of formal objects** that can be manipulated.
        c.   They are used as instructions to PF: $\langle\text{A},\text{B}\rangle$ is read as "Place the phonological features of A to the immediate left of the phonological features of B."

For our purposes, we could, instead of using order pairs, place each terminal in an unordered set, and add a formal feature "iPRECEDE" to specify how it should be linearized.

(18)   **Alternative linearization statements**:
$$\left\{\begin{array}{l} [\sqrt{\text{ÖL}},\ \text{iPRECEDE: n}\ \ ],\\ \ [[\text{n}],\ \text{iPRECEDE: } n_{\text{Infl}}],\\ [n_{\text{Infl}}[-\text{v},-\text{n},-\text{o}],\ \text{iPRECEDE: \#}\ \ ] \end{array}\right\}$$

At this point, operations that manipulate Linearization Statements could apply, which could include Linearization itself or other aspects of the feature structure (e.g. Impoverishment). We then do Vocabulary Insertion, where phonological features are added. There are at least three options for the output of Vocabulary Insertion in the literature: (a) it replaces the formal features with phonological features (and retains none of them) (Bobaljik 2000), (b) it adds phonological features and retains all the formal features (Embick 2015), or (c) it retains all and only the features that specified insertion (Soares 2023). We illustrate these options in (19) using the Vocabulary Item in (20b) (setting aside number/gender). We crucially adopt Option C, and thus derive (21) from (16) using the VIs in (20).[4]

(19)   a. **Retain no formal features** $n_{\text{Infl}}[-\text{v},-\text{n},-\text{o}] \rightarrow$ $[/\text{i}/]$
        b. **Retain all formal features** $n_{\text{Infl}}[-\text{v},-\text{n},-\text{o}] \rightarrow$ $n_{\text{Infl}}[-\text{v},-\text{n},-\text{o},/\text{i}/]$
        c. **Retain specifying formal features** $n_{\text{Infl}}[-\text{v},-\text{n},-\text{o}] \rightarrow$ $n_{\text{Infl}}[-\text{v},-\text{n},/\text{i}/]$

(20)   a. $/\text{ar}/ \leftrightarrow [\text{n}] \ / \ \{\ \sqrt{\text{ÖL}}, \dots\ \}$ __   b. $/\text{i}/ \leftrightarrow n_{\text{Infl}}[-\text{pl},+\text{masc},-\text{n},-\text{v}]$

(21)   **Vocabulary Insertion**:
$$\left\{\begin{array}{l} \langle[\sqrt{\text{ÖL}}, /\text{öl}/],[\text{n}, /\text{ar}/]\rangle,\\ \qquad\quad \langle[\text{n}, /\text{ar}/], n_{\text{Infl}}[-\text{v},-\text{n}, /\text{i}/]\rangle \end{array}\right\}$$

Finally, the phonological features added in the Vocabulary Insertion process are strung together into a phonological string (to be manipulated by phonology). Embick (2010) calls this "Chaining", and we assume that the immediate precedence instructions are followed

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[4]An intriguing aspect of Soares's proposal that should be explored in future work is that it allows us to think of a Vocabulary Item as a pair of formal and phonological features; Vocabulary Insertion simply replaces one feature set (without phonological features) with another one (with phonological features).

at this point. In this case, `/öl/` precedes `/ar/`, forming `/öl-ar/` and `/ar/` precedes `/i/`, forming `/öl-ar-i/`.

5.   Why we can't keep or delete both

We now show why getting syncretism effects from a feature bundle like $[+v,-v,-n,-o]$ is not straightforward. First we show why we can't simply keep all the features and realize the bundle in the normal way, and then why we cannot delete all the contradictory features.

     As Bjorkman (2021) correctly points out, simply keeping both features, in this case $[+v]$ and $[-v]$, won't get the right results. In DM, feature bundles are realized with under-specified Vocabulary Items, so a feature bundle like $[+v,-v][-n][-o]$ is likely to find some realization. For example, consider the VIs for weak singular nouns in (22). A weak feminine noun with $[+v,-v][-n][-o]$ would have no trouble being realized as (22b), a weak masculine as (22a), etc. The point is that getting extra features isn't normally going to cause a problem in DM, and it certainly won't lead to syncretism effects.[5]

(22)   VIs for Weak Nouns

         a.   `/i/` $\leftrightarrow n_{\mathrm{Infl}}[-\mathrm{pl},+\mathrm{masc},-\mathrm{n},-\mathrm{v}]$
         b.   `/u/` $\leftrightarrow n_{\mathrm{Infl}}[-\mathrm{pl},+\mathrm{fem},+\mathrm{v}]$
         c.   `/a/` $\leftrightarrow n_{\mathrm{Infl}}[-\mathrm{pl}]$

In an earlier stage of this project, drawing connections with Hein and Murphy (2020), we proposed as a first pass that both features would be deleted, leading to syncretism effects, because only nouns that are unspecified for $[\pm v]$ would be allowed.

     However, if we delete both $[+v]$ and $[-v]$, we make some odd predictions. Consider once again the VIs for weak nouns. (22c) is effectively an Elsewhere VI for singulars. If $[-v]$ and $[+v]$ are both deleted, the prediction is that (22c) will show up for both masculine and feminine nouns. Descriptively, it would look like the nominative form would be chosen for feminine nouns, and the accusative form would be chosen for masculine nouns, as illustrated in (24) (see the paradigm in (23).[6]

(23)

		Masculine 'beer'	**Feminine** 'cucumber'	**Neuter** 'eye'
	NOM	öllar-i	gúrk-a	aug-a
	ACC	öllar-a	gúrk-u	aug-a
	DAT	öllar-a	gúrk-u	aug-a
	GEN	öllar-a	gúrk-u	aug-a

[5]The only way it could be a problem would be if it made two VIs equally specified for insertion, which is normally resolved with extrinsic ordering statements or ordering based on markedness. See Kratzer (2009) for one proposal where this leads to an ineffable spellout dilemma.

[6]Another odd prediction is that in principle, some third form could come popping out, if VIs specify both nominative $[-v]$ and accusative $[+v]$, and there is some other elsewhere morpheme for case. For NOM/ACC, there are no cases of this in Icelandic that we are aware of. In Müller's (2005) analysis, if dative and genitive occurred on the same head, and the conflicting features were deleted, the prediction is that it would be nominative in the plural, but only for two inflection classes.

(24)   **Hypothetical (Nonexistent) Speaker**

   a.   Það   var fengið sér   { *öllar-i   / **öllar-a**   }
        EXPL was gotten REFL.DAT { *beer-M.NOM / beer-M.ACC }

   b.   Það   var fengið sér   { **gúrk-a**   / *gúrk-u   }
        EXPL was gotten REFL.DAT { cucumber-F.NOM / *cucumber-F.ACC }

6.   The Syncretism Effect

To address these kinds of problems, Asarina (2011, 2013) and Bjorkman (2016) proposed that ameliorative syncretism can arise when two separate feature bundles occupy one head. We illustrate this below with the *go get* construction in Marsalese (25).

(25)   a.   Vaju   a pigghiu   u pani.
             go.1SG to fetch.1SG the bread
             'I go and fetch the bread.'
        b.   *Emu   a pigghiamu u   pani.
             go.1PL to fetch.1PL   the bread
             'We go and fetch the bread.'   (*Marsalese*; Cardinaletti and Giusti 2001:380)

Bjorkman proposes that in these constructions, the verb has two feature bundles, with distinct inflectional features: [INFL:DIR] and [INFL:PRES]. Each feature bundle undergoes its own round of Vocabulary Insertion. The result is only grammatical if both "rounds" choose the same Vocabulary Item, as illustrated below (from Bjorkman 2016:84–85).

(26)

	[φ:1SG]		[φ:1PL]	
	[INFL:DIR]	[INFL:PRES]	[INFL:DIR]	[INFL:PRES]
...				
e- ↔ [PRES]/[1PL]	–	–	–	e-
va- ↔ elsewhere	*va-*	*va-*	*va-*	–
...				
-u ↔ [1SG]	*vaju*	*vaju*	–	–
-mu ↔ [1PL]	–	–	*vamu*	*emu*
	Identical realization		*Conflicting realization*	

Where does the second feature bundle come from? Bjorkman (2021) proposes, "If a head enters Agree relations that give it conflicting values for any node in a feature geometry, the result is the creation of a second geometry." Notice that when a second geometry is created, all the other irrelevant features must be copied. However, in the present case, there is no Agree relation that creates the conflict.

   Bjorkman's analysis is an important step forward, but it leaves open the questions: Why do we get two feature bundles? What enforces the 'same Vocabulary Item' requirement? Our answer to the first question is that conflicting features are subject to a kind of Fission which applies after linearization. Our answer to the second question (from Soares 2023)

is that linearization will be impossible unless the same Vocabulary Item is used on both feature bundles.

Soares (2023) proposes that two feature bundles result from a process that she refers to as **Individuation**. Just like with Bjorkman's proposal, in order for Individuation to have the desired effect, the non-conflicting features must be copied onto the second feature bundle.

(27) $[+v,-v,-n,-o] \rightarrow [-v,-n,-o] [+v,-n,-o]$.

Then, if Vocabulary Insertion picks out the same VIs for both bundles, the result is grammatical. The question remains: Why do Individuation in the first place? Why not just keep the full set of features and do Vocabulary Insertion in the normal way (with underspecifications, elsewhere forms, etc.)? Clearly this happens with portmanteau morphology. Moreover, why does Individuation lead to syncretism effects, rather than insertion of multiple VIs (which is what usually happens with Fission)? We address these questions by proposing a kind of unification of Individuation and Fission.

7. Individuation and Fission

The DM literature has proposed distinct kinds of Fission. There is pre-VI Fission that operates on feature bundles in trees and creates new nodes (Halle and Marantz 1993, Arregi and Nevins 2012, Hewett 2023a,b). Another kind operates at VI, and "splits off" features that aren't realized (Noyer 1992, Halle 1997, Harbour 2008a). We focus on the pre-VI kind. Hewett (2023b:133) proposes the schema for "Fission-triggering constraints" in (28).

(28) **Fission-triggering morphotactic constraints**
$*\alpha, \beta$, where α and β are variables over nonempty (sub-)sets of features (indicated by square brackets '[...]') in the feature set $\mathcal{M}$ of a given morpheme.

(29) **Fission**: Given an input node with feature set $\mathcal{M}$ bearing two antagonistic sets of features α and β targeted by the Fission rule, Fission will split up α and β into two distinct output nodes m_1 and m_2 and copy all other non-targeted sets of features ϕ into both m_1 and m_2.

The intuition is that Fission applies to marked feature combinations in a language. For example, Hewett proposes a constraint on φ-feature exponence in Semitic that takes the form $*[-author][\pm singular]$, so a single node containing these features will be split into two nodes. Remaining φ-features (e.g. $[\pm part]$) are copied.

(30) $\varphi[-auth,+sg,+part] \rightarrow$ $\overbrace{\varphi[-auth,+part] \quad \varphi[+sg,+part]}^{\varphi}$

It is striking that in Fission, Bjorkman's Agree and Soares's Individuation, the same thing happens with the "extra" features: they are copied to the new bundle. If our instances were ordinary Fission, we would assume a constraint such as $*[-v][+v]$, with the result in (31).

(31) $n_{\text{Infl}}[+\text{v},-\text{v},-\text{n},-\text{o}] \rightarrow$

$$\overline{n_{\text{Infl}}}$$
$$n_{\text{Infl}}[-\text{v},-\text{n},-\text{o}] \qquad n_{\text{Infl}}[+\text{v},-\text{n},-\text{o}]$$

But then, the structure would feed linearization, and two case-morphemes would appear next to each other. For example, if we did this with a Weak Masculine Noun like *öll-ar-i* 'beer' (using the VIs in (22)) then we would incorrectly predict the nominative *-i* to be followed by the accusative *-a*, resulting in the form *öll-ar-i-a.

(32)

$$
\begin{array}{c}
\text{n} \\
\hline
\text{n} \qquad\qquad n_{\text{Infl}} \\
\hline \qquad\qquad \hline \\
\sqrt{\text{ÖL}} \quad \text{n} \qquad n_{\text{Infl}} \qquad\qquad n_{\text{Infl}} \\
\qquad\qquad [-\text{v},-\text{n},-\text{o}] \quad [+\text{v},-\text{n},-\text{o}]
\end{array}
$$

(33)   **Linearization**: $\left\{ \begin{array}{l} \langle\sqrt{\text{ÖL}},\text{n}\rangle,\ \langle\text{n},n_{\text{Infl}}[-\text{v},-\text{n},-\text{o}]\rangle, \\ \qquad \langle n_{\text{Infl}}[-\text{v},-\text{n},-\text{o}],n_{\text{Infl}}[+\text{v},-\text{n},-\text{o}]\rangle \end{array} \right\}$

(34)   **Vocab. Insertion**: $\left\{ \begin{array}{l} \langle\sqrt{\text{ÖL}},[\text{n},/\text{ar}/]\rangle,\ \langle[\text{n},/\text{ar}/],n_{\text{Infl}}[-\text{v},-\text{n},/\text{i}/], \\ \qquad\qquad \langle n_{\text{Infl}}[-\text{v},-\text{n},/\text{i}/],n_{\text{Infl}}[/\text{a}/]\rangle \end{array} \right\}$

(35)   **Chaining**: /öl-ar-i-a/ $\rightarrow$ **Wrong Result!**

However, suppose instead that the constraint applies directly to the linearization statements, so they would be something like: *$\langle\alpha,[-\text{v}][+\text{v}]\rangle$, *$\langle[-\text{v}][+\text{v}],\alpha\rangle$. The result would now be:

(36)   **Linearization**: $\{\langle\sqrt{\text{ÖL}},[\text{n}]\rangle,\ \langle[\text{n}],n_{\text{Infl}}[+\text{v},-\text{v},-\text{n},-\text{o}]\rangle\}$

(37)   **Fission/Individuation**: $\left\{ \begin{array}{l} \langle\sqrt{\text{ÖL}},[\text{n}]\rangle,\ \langle[\text{n}],n_{\text{Infl}}[-\text{v},-\text{n},-\text{o}]\rangle, \\ \qquad\qquad \langle[\text{n}],n_{\text{Infl}}[+\text{v},-\text{n},-\text{o}]\rangle \end{array} \right\}$

The "Fission" in this case copies the entire ordered pair, creating the potential for a conflict: when mapped to a phonological string, [n] must immediately precede two distinct objects.

(38)   **Vocabulary Insertion**: $\left\{ \begin{array}{l} \langle\sqrt{\text{ÖL}},[\text{n},/\text{ar}/]\rangle,\ \langle[\text{n},/\text{ar}/],n_{\text{Infl}}[-\text{v},-\text{n},/\text{i}/]\rangle \\ \qquad\qquad \langle[\text{n},/\text{ar}/],n_{\text{Infl}}[/\text{a}/]\rangle \end{array} \right\}$

The Chaining stage will result in ineffability. If VI replaces both of them with the same exponent, however, as is the case with the neuter *auga* 'eye', the derivation converges (39).

(39)   **Vocabulary Insertion**: $\left\{ \begin{array}{l} \langle\sqrt{\text{AUG}},[\text{n}]\rangle,\ \langle[\text{n}],n_{\text{Infl}}[/\text{a}/]\rangle \\ \qquad\qquad \langle[\text{n}],n_{\text{Infl}}[/\text{a}/]\rangle \end{array} \right\}$

(39) is set-theoretically identical to $\{\langle\sqrt{\text{AUG}},[\text{n}]\rangle,\ \langle[\text{n}],n_{\text{Infl}}[/\text{a}/]\rangle\}$, which can feed chaining as /aug-a/, so the result is grammatical. The key here is that Vocabulary Insertion removes all the conflicting features, because only the features contained in the VI are retained, the potential linearization conflict doesn't arise at the stage where it matters.

8.   Non-rescue-by-syncretism in the New Impersonal Passive

The account correctly predicts that the syncretism repair found in Grammar C only works for ditransitives. We can illustrate this point with the so-called *New Impersonal Passive* (NIP) in Icelandic (Maling and Sigurjónsdóttir 2002; Eythórsson 2008; Jónsson 2009; H.Á. Sigurðsson 2011; E.F. Sigurðsson 2012; Legate 2014). The NIP is non-standard and unacceptable for many speakers. It is characterized by default agreement, i.e., the neuter singular *beðið* 'asked' in (40), and in-situ direct object which is accusative and definite, i.e., *mig* 'me' in (40).

(40)   % Það   *var beðið*   **mig**   að vaska upp.
          it.EXPL was asked.DFLT me.ACC to wash up
          'I was asked to do the dishes.'   (Maling and Sigurjónsdóttir 2002:112)

However, we assume that this is an entirely different construction from the reflexive ditransitive. It has been argued that the NIP either involves a silent external argument DP (Maling and Sigurjónsdóttir 2002) or a φ-feature bundle involved with accusative-case assignment (Schäfer 2012).[7]

(41)   **New Impersonal Passive**
          [$_{VoiceP}$ φP$_{NOM}$ Voice [$_{vP}$ v DP$_{ACC}$ ...]]

Essentially, we would assume that accusative case comes from the "hidden transitive" structure of the New Impersonal Passive. That is to say, the structure is never spelled out with [+v,−v]. Given the speaker variation, and that case is part of what makes the construction stand out, we might have imagined that some speakers would accept it only when the object is syncretic. In fact, however, Snorrason's (2021) study does not find evidence for such speakers.[8] People either: accept the construction with accusative, or reject it altogether. Our account correctly predicts this: In (41), there is no ApplP that "cuts off" the DP from the higher structure. As a result, the DP always gets a specification for [+v]. Repair is never an issue (there is nothing to repair), so syncretism repair is not among the options for "saving" the structure (there is nothing to save). This further supports the connection made in our analysis between ditransitives and the rescue-by-syncretism effect.

9.   Conclusion

In the passive of reflexive ditransitives in Icelandic, some speakers allow the object to be NOM and others ACC, but many speakers only allow it with nouns that take a NOM/ACC SYNCRETIC form. We have proposed that the structure does not allow for unambiguous valuation of structural case, because reflexive Appl cuts the DP off from the rest of the structure. Variation stems from how speakers' grammars handle this at PF: Impoverishment

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[7]See also H.Á. Sigurðsson (2011), where the connection to case is indirect, but φ-features are still present.
[8]We also do not find speakers who accept it with NOM, and still have other features of the construction, including non-movement and non-agreement.

of one of the features or (late) Fission. This account can explain why a similar rescue-by-syncretism is not available when there is no Appl head—the latter is crucial to cutting off the DP object from the rest of the structure.

We then turned to the syncretism effects, which are a general problem for morphological theory. We proposed that the formal mechanism of Fission can apply before or after Linearization. This mirrors proposals that have been made about Impoverishment and Agree-Copy, which have been proposed to occur before or after Linearization (Arregi and Nevins 2012:344, Wood et al. 2020), and resembles the Hypothesis of Cross-modular Structural Parallelism (Arregi and Nevins 2012:133).

(42)   Operations across distinct modules of grammar employ identical computational mechanisms.

The idea would be that basic structural mechanisms like Fission can apply at different stages of grammar, with distinct effects derived from the independent properties of those stages.

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