

# Strictly Local Impoverishment: An Intervention Effect

*draft version*

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## Abstract

Nevins (2011) proposes that dual-plural number contrasts are Impoverished in the context of feminine gender in Ljubljana Slovenian. However, in some Case-forms of nominal paradigms, Impoverishment is *blocked*. This pattern can be given a principled account if Impoverishment is *strictly local*, implying it may only search for its triggering context in the closest  $X^0$  in the c-command domain. The absence of a local trigger gives rise to *Intervention*.

## 1 Introduction

Languages that exhibit systematic patterns of morphological syncretism must involve a rule that derives such syncretism as a ‘deep’ property of the grammar, according to Harley (2008) and Nevins (2011). They show that, within Distributed Morphology (Halle & Marantz 1993), this needs to be derived by Impoverishment (Bonet 1991; Noyer 1992; Halle & Marantz 1994), which as a context-sensitive operation deletes feature  $F_\alpha$  in the context of  $F_\beta$ . Nevins (2011) discusses Ljubljana Slovenian, and posits Impoverishment of the DUAL-number contrasts in the context of feminine gender. However, Nevins only considers morphological paradigms in isolation and only their nominative Case forms. This paper provides more empirical context, viz. entire morphological paradigms from Ljubljana Slovenian, and also the interaction of the relevant syncretism with agreement patterns. While the agreement patterns confirm the post-syntactic nature of Impoverishment, the full morphological paradigms show that Impoverishment is systematically *blocked* in certain Case forms. This pattern of *blocking* can be captured as an *intervention effect* if Impoverishment is limited to considering a *strictly local*  $X^0$  as context, i.e. that available in the immediate c-command domain.

## 2 DUAL-Syncretism

Number contrasts show systematic syncretism in Ljubljana (LJ) Slovenian.<sup>1</sup> Like Standard Slovenian (Toporišič 2000), LJ Slovenian has three-way gender system (masculine vs. feminine vs. neuter) and a three-way number system (singular vs. dual vs. plural). Gender is coded in (pro)nouns, adjectives and participles:

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<sup>1</sup>The data are based on the author’s observation of spoken Slovenian. In addition, all the data points here were checked with two speakers of Ljubljana Slovenian. Note that there is dialectal variation within the area of Ljubljana itself. The data here represent the version of this dialect as observed by the author and as spoken by the speakers that were consulted.

| (1) Nouns (NOM-case) |        |   |   | (2) Adjectives (NOM-case) |  |  |    |
|----------------------|--------|---|---|---------------------------|--|--|----|
|                      | SG     | DU  | PL  |                           | SG   | DU   | PL |
| MASC                 | stol-∅ | stol-a  | stol-i  | lep-∅                     | lep-a  | lep-i  |    |
| NEUT                 | vesl-o | vesl-a  | vesl-a  | lep-o                     | lep-a  | lep-a  |    |
| FEM <sub>1</sub>     | miz-a  | miz- <span style="border: 1px solid black; padding: 0 2px;">e</span>  | miz- <span style="border: 1px solid black; padding: 0 2px;">e</span>  | lep-a                     | lep- <span style="border: 1px solid black; padding: 0 2px;">e</span> | lep- <span style="border: 1px solid black; padding: 0 2px;">e</span> |    |
| FEM <sub>2</sub>     | kost-∅ | kost- <span style="border: 1px solid black; padding: 0 2px;">i</span> | kost- <span style="border: 1px solid black; padding: 0 2px;">i</span> |                           |  |  |    |

*Glosses: stol* ‘chair’, *veslo* ‘oar’, *miza* ‘table’, *kost* ‘bone’, *lep* ‘pretty’

| (3) Participles | SG        | DU   | PL   |       |
|-----------------|-----------|--|--|-------|
| MASC            | jok-o-w-∅ | jok-a-l-a  | jok-a-l-∅  | ‘cry’ |
| NEUT            | jok-a-l-∅ | jok-a-l-a  | jok-a-l-a  |       |
| FEM             | jok-a-l-a | jok-a-l- <span style="border: 1px solid black; padding: 0 2px;">e</span> | jok-a-l- <span style="border: 1px solid black; padding: 0 2px;">e</span> |       |

Notice that the DU-PL forms are completely syncretic in the context of feminine gender. Furthermore, it seems that this is not merely a superficial type of syncretism since it is expressed through different exponents. Specifically, there are two (relevant) feminine paradigms in nouns and they both express this syncretism, but with different exponents, viz. /-e/ and /-i/. Other syncretisms also occur, but we focus on the number patterns in the context of feminine gender. This is the pattern discussed by Nevins (2011).

The same patterns of syncretism can be observed throughout the system of pronouns. Consider personal pronouns, proximal and distal demonstratives, for which we only supply feminine forms, but across all three numbers:

| (4) Personal pronouns (F.NOM) | SG   | DU          | PL   |
|-------------------------------|------|-------------|------|
| 1P                            | jəst | m-e(-dv-e)  | m-e  |
| 2P                            | ti   | v-e(-dv-e)  | v-e  |
| 3P                            | on-a | on-e(-dv-e) | on-e |

| (5) Demonstratives (F.NOM) | SG     | DU            | PL     |
|----------------------------|--------|---------------|--------|
| PROX                       | t-a    | t-e(-dv-e)    | t-e    |
| DIST                       | tist-a | tist-e(-dv-e) | tist-e |

No DUAL-contrast appears to surface in feminine pronouns.<sup>2</sup> Before we continue discussing this syncretism pattern further, let us also consider a verbal paradigm from this dialect:

<sup>2</sup>Note that the numeral *dv-e* ‘two’ can be optionally attached to pronouns, to apparently reinforce the dual contrast. However, since this attachment is not registered by agreement or any other operation at all, and since it is optional, we can conclude that this is not a counter-example to the DU-PL syncretism, pointed out by Nevins (2011), that is pervasive in this dialect

|     |            |          |          |       |
|-----|------------|----------|----------|-------|
| (6) | SG         | DU       | PL       |       |
|     | 1P jok-a-m | jok-a-va | jok-a-mo | ‘cry’ |
|     | 2P jok-a-š | jok-a-ta | jok-a-te |       |
|     | 3P jok-a-∅ | jok-a-ta | jok-a-jo |       |

Verbs express full number contrast: the DU-PL contrast is not syncretic at all. But this is not unexpected given that verbs do not code gender at all, and the DU-PL syncretisms that we observed earlier are tied to feminine contexts.

The syncretism of DU-PL forms in the context of feminine gender is pervasive throughout the dialect and it even cuts across paradigms in nouns, manifesting through different exponents. According to [Harley \(2008\)](#) and [Nevins \(2011\)](#), such patterns are instances of *meta-syncretism*: these are essentially syncretism patterns that imply a deeper morphological generalization, in this case, actual neutralization of number contrast. The pattern can be derived with simple Vocabulary Item underspecification:

- (7) a.  $[-\text{SG}, +\text{FEM}] \leftrightarrow -e / \sqrt{\text{RT}_{\text{List1}} \underline{\quad}}$   
 b.  $[-\text{SG}, +\text{FEM}] \leftrightarrow -i / \sqrt{\text{RT}_{\text{List2}} \underline{\quad}}$

However, as [Harley \(2008\)](#) and [Nevins \(2011\)](#) argue, such an account renders the syncretisms completely accidental and misses a morphological generalization. To actually neutralize the contrasts, Harley and Nevins argue for the use of Impoverishment rules. In what follows, we represent number and gender contrasts with a binary feature system, using  $[\pm\text{SG}, \pm\text{AUG}]$  for number and  $[\pm\text{M}, \pm\text{F}]$  for gender ([Harbour 2003](#); [Nevins 2011](#)).

- (8) Impoverishment in LJ Slovenian (first version)  
 $[\pm\text{AUG}] \rightarrow \emptyset / \underline{\quad} [+ \text{FEM}]$

We must posit a rule as in (8) to derive the DU-PL neutralization. The deletion of the  $[\pm\text{AUG}]$  feature in the context of feminine gender results in a two-way number system, expressed solely by  $[\pm\text{SG}]$ . This is essentially the analysis that [Nevins \(2011\)](#) gives for LJ Slovenian, and it captures the desired generalization.

### 3 Agreement Interactions

We now consider  $\phi$ -agreement, which confirms that Impoverishment must be a post-syntactic operation. With tensed verbs, the agreement is for number and person but not gender, since verbs never appear to code gender at all in this dialect:

- |                                     |  |
|-------------------------------------|--|
| (9) a. <i>Plural-DP context.</i>    | b. <i>Dual-DP context</i>  |
| Vran-e                              | Vran-e   |
| let-i-jo.                           | let-i-ta.  |
| crow:NOM.F. <u>NON-SG</u> fly:3P.PL | crow:NOM.F. <u>NON-SG</u> fly:3P. <span style="border: 1px solid black; padding: 0 2px;">DU</span> |
| ‘The crows are flying.’             | ‘The two crows are flying.’  |

The two examples above illustrate that, though the DU-PL contrast is neutralized on the DP, the respective dual or plural agreement is still reflected on the verb in LJ Slovenian. This is also true of coordinated structures, where two feminine DP's are involved:

(10) LJ Slovenian agreement in coordinations

Marija            in    Staša            sta            šle            domov.  
 Marija:NOM.SG.F and Staša:NOM.SG.F AUX:3P. DU go:PTC.F.PL home  
 ‘Marija and Staša went home.’

The agreement pattern in this dialect fits a typical DM-analysis perfectly. Agreement relations take place in narrow syntax – or at an early stage of the PF-interface (Arregi & Nevins 2012) – where this dialect needs to still express the DU-PL contrasts with all genders. Subsequently Impoverishment neutralizes the relevant contrasts later, at PF. However, this only happens in the context of feminine gender, so the verbs are not affected, since they do not agree for gender, and easily continue to express DU-PL contrasts with feminine subjects even at PF. This is evidence for Nevins’ proposal of DUAL-Impoverishment in LJ Slovenian: one could easily imagine that the meta-syncretisms are in fact so deep that this is reflected in the lexical feature bundling of the *Numeration set*, as is tentatively speculated in Harley (2008: 292). However, the agreement data confirms that the LJ Slovenian neutralization is an active, and necessarily post-syntactic process.

## 4 Impoverishment Blocking

A seeming complication arises once entire paradigms of nouns that undergo impoverishment are examined. Consider all the case forms for the two classes of feminine paradigms, as shown below:

|      |      |  |  |  |      |   |
|------|------|--|--|--|------|---|
| (11) |      | DU   | PL   |  | DU   | PL  |
|      | NOM  | miz-e  | miz-e  |  | NOM  | kost-i  |
|      | GEN  | miz-∅  | miz-∅  |  | GEN  | kost-i  |
|      | DAT  | miz- <span style="border: 1px solid black; padding: 0 2px;">ama</span> | miz- <span style="border: 1px solid black; padding: 0 2px;">am</span>  |  | DAT  | kost- <span style="border: 1px solid black; padding: 0 2px;">ema</span> |
|      | ACC  | miz-e  | miz-e  |  | ACC  | kost-i  |
|      | LOC  | miz-ah   | miz-ah   |  | LOC  | kost-eh   |
|      | INST | miz- <span style="border: 1px solid black; padding: 0 2px;">ama</span> | miz- <span style="border: 1px solid black; padding: 0 2px;">ami</span> |  | INST | kost- <span style="border: 1px solid black; padding: 0 2px;">ema</span> |
|      |      |  |  |  |      | kost- <span style="border: 1px solid black; padding: 0 2px;">mi</span>  |

The syncretism is continued in most non-nominative case forms except for the dative and instrumental where a contrast between dual and plural surfaces. In order for Vocabulary Insertion to insert different exponents for these dative and instrumental forms, the DU-PL contrast must be preserved for these. A possible option is that the Impoverishment rule is made specific to the context of non-DAT and non-INST case forms:

- (12) Impoverishment in LJ Slovenian (Case-sensitive version)  
 $[\pm\text{AUG}] \rightarrow \emptyset / \text{_____}[\text{+FEM}, \{\text{NOM}, \text{GEN}, \text{ACC}, \text{LOC}\}]$

However, such a rule makes incorrect predictions: it predicts that no Impoverishment will occur in the contexts where the specified Case features are unavailable. This is incorrect since the participles in (3), which only code gender and number but crucially no Case, must be subject to the same Impoverishment. If Impoverishment was defined as in (12), it would be unable to delete any number features in participles ( $\text{Ptc}^0$ ), since the context restriction (the Case restriction) could not be met. Assuming a standard AGREE-based model of  $\phi$ -agreement (Chomsky 2000, 2001), this line of reasoning makes the standard assumption that  $\#^0$ -valuation and gender-valuation on the  $\text{Ptc}^0$ -probe occur *before* Impoverishment. However, assuming AGREE-LINK/COPY (Arregi & Nevins 2012) where AGREE-COPY values probes at PF, could we say that only the  $\#^0$ -probe valuation occurs later, crucially after Impoverishment? If  $\#^0$ -valuation were late, then the derivation would be the following:

- (13) Derivation with late  $\#^0$ -valuation

1. SYNTAX/EARLY PF: gender valuation  $\rightarrow$  [+FEM] on  $\text{Ptc}^0$
2. PF: DUAL Impoverishment  $\rightarrow$  [ $\pm$ AUG] deletes on DP
3. LATE PF:  $\#^0$  valuation  $\rightarrow$  [+FEM, -SG] on  $\text{Ptc}^0$

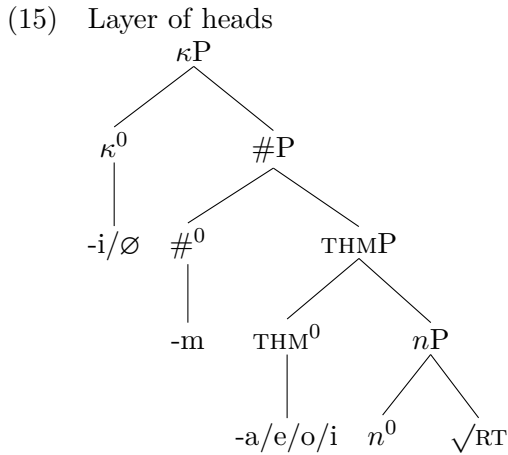
This would derive the absence of DU-contrasts in the participles, but it makes incorrect predictions for tensed verbs: the latter crucially need their  $\#$ -features valued before Impoverishment, so that DU-contrasts can be expressed in the verbal paradigm. Of course, one could say that  $\#$ -valuation is exceptionally late for participles. However, given that they are encoding the same syncretism pattern seen elsewhere in the grammar, this seems too stipulative a solution. An alternative option is that all  $\#$ -valuation is uniform, but that two Impoverishment rules are involved: the one in (12) and then another one made specific to participles. This option, however, misses the generalization that these two rules are encoding the *same* neutralization effect, just in different word classes.

This now means that there must be another way of deriving the Impoverishment in this dialect of Slovenian. A closer look at the Case forms where the Impoverishment blocking occurs will suggest a different solution to the problem. Specifically, we propose that, in the DAT/LOC-forms, the gender and number features are not in a sufficiently *local relation*, which blocks the application of the Impoverishment rule as stated in (8). Specifically, we propose that these Case forms be analyzed as showing a layer of syntactic heads, and not just a single ‘fused’ head that combines Case and all  $\phi$ -features, as is usually assumed for Slovenian, as in Börjesson (2006) or Caha (2009: 240-243). Independent evidence for this comes from the basic exponent-alternations observed in these forms: consider the datives *miz-ama* (DU) vs. *miz-am* (PL) of the noun *miz-a* ‘table’, but for

*kost-∅* ‘bone’, they are *kost-ema* (DU) vs. *kost-em* (PL). Also consider the locatives: *miz-ama* (DU) vs. *miz-ami* (PL), and *kost-ema* (DU) vs. *kost-mi* (PL). The same segmental subset of this exponent alternates in the different Case-number configurations, which suggests that we should segment these as follows: *miz-a-m-a* (DU) vs. *miz-a-m-∅* (PL), *kost-e-m-a* (DU) vs. *kost-∅-m-i*. Further evidence for this can be found in masculine and neuter paradigms that reveal more alternations in these forms:

|      |      |   |   |  |      |   |
|------|------|---|---|--|------|---|
| (14) |      | DU.M  | PL.M  |  | DU.N | PL.N  |
|      | NOM  | mošk-a  | mošk-i  |  | NOM  | dreves-a  |
|      | GEN  | mošk-ih   | moš-ih  |  | GEN  | dreves-∅  |
|      | DAT  | mošk- <span style="border: 1px solid black; padding: 0 2px;">ima</span> | mošk- <span style="border: 1px solid black; padding: 0 2px;">im</span>  |  | DAT  | dreves- <span style="border: 1px solid black; padding: 0 2px;">oma</span> |
|      | ACC  | mošk-a  | mošk-e  |  | ACC  | dreves-a  |
|      | LOC  | mošk-ih   | mošk-ih   |  | LOC  | dreves-ih   |
|      | INST | mošk- <span style="border: 1px solid black; padding: 0 2px;">ima</span> | mošk- <span style="border: 1px solid black; padding: 0 2px;">imi</span> |  | INST | dreves- <span style="border: 1px solid black; padding: 0 2px;">i</span>   |

Notice that the datives and instrumentals show more alternations but again of the exact same segmental subset of the Case- $\phi$  ‘exponent’. These provide independent evidence that at least three syntactic heads are involved here: a  $\#^0$ -head and a  $\kappa^0$ -head must be the two final suffixes, while the root-adjacent one is either  $n^0$  or a theme suffix:



In fact, the root-adjacent vowel suffixes cannot be  $n^0$  since these suffixes occur above overt nominalizers such as */-its/*, as in *dekl-its-a* ‘girl (NOM.SG.F)’ ~ *dekl-its-a-m-i* (INST.PL.F) or *žanj-its-a* ‘reaper (NOM.SG.F)’ ~ *žanj-its-a-m-i* (INST.PL.F). These suffixes should probably be characterized as theme suffixes of sorts because they classify nouns according to gender and morphological class: cf. the feminine */-a/* and */-e/* in *miz-a-m-a* and *kost-e-m-a* in (11), the masculine */-i/* in *mošk-i-m-a* and neuter */-o/* in *dreves-o-m-a* in (14).  $n^0$  is immediately below THM<sup>0</sup>.

Notice that the locative suffixes also call for such a decomposition: in (11), *miz-a-h* (DU/PL) and *kost-e-h* (DU/PL), and in (14), *mošk-i-h* and *dreves-i-h*. */-h/*

is likely the spell-out of  $\kappa^0$ , since it is unique to locative forms, but the preceding vowels could well represent just the theme suffix, or perhaps a combination of the theme suffix with  $\#^0$ . See also footnote 3.

A question that must now be answered pertains to the *trigger of impoverishment*, gender: where is gender positioned? A significant body of literature argues that gender features occur on  $n^0$  (Acquaviva 2008; Kramer 2009, 2015; Deal 2016), and for Slovenian we can also find evidence for this claim. This assumption follows naturally from the observation that nominalizing suffixes either (i) fix the gender of a genderless stem, or (ii) change the gender of a stem. To illustrate (i), consider verbal participial stems constructed with  $/-l/$  such as  $\sqrt{hlad-i-l}$  ‘being cold’, which are further turned into adjectives by the attachment of  $/-n/$ , as in  $\sqrt{hlad-i-l-n}$ . This uninflected stem can then either be nominalized by  $/-its/$ , which turns it into the feminine noun *hlad-i-l-n-its-a* ‘refrigerating room (NOM.SG.F)’, but the nominalizer  $/-ik/$  turns it into the masculine noun *hlad-i-l-n-ik-Ø* ‘refrigerator (NOM.SG.M)’. (ii) can, in turn, be characterized by the following examples:

|      |                                   |                  |                         |                       |
|------|-----------------------------------|------------------|-------------------------|-----------------------|
| (16) | <i>Root</i>                       | <i>Bare noun</i> | <i>attaching /-its/</i> | <i>attaching /-k/</i> |
|      | $\sqrt{\text{tiger}}$ - ‘tiger’   | tiger-Ø (M)      | tigr-its-a (F)          |                       |
|      | $\sqrt{\text{slon}}$ - ‘elephant’ | slon-Ø (M)       | slon-its-a (F)          |                       |
|      | $\sqrt{\text{želv}}$ - ‘turtle’   | želv-a (F)       |                         | želv-a-k-Ø (M)        |
|      | $\sqrt{\text{srn}}$ - ‘roe’       | srn-a (F)        |                         | srn-a-k-Ø (M)         |

Some roots may form bare nouns (with no overt nominalizer) of masculine gender, but some of feminine gender. The attachment of the nominalizer  $/-its/$  then turns a bare masculine noun into a feminine one, but the attachment of  $/-k/$  to a bare feminine noun turn it to a masculine one. It hence follows that gender is positioned on  $n^0$  in Slovenian, as well.

The preceding discussion has established that dative and instrumental cases in Slovenian paradigms reveal a layer of syntactic heads, viz.  $n^0$ , a theme suffix,  $\#^0$  and  $\kappa^0$ . The remaining case forms systematically show a single exponent of Case,  $\phi$ -features and THM<sup>0</sup> throughout the language, and this suggests that they must undergo *fusion* of some sort. Whether they are bundled into one head pre-syntactically (through *c*-selection), or whether this happens post-syntactically is something that we can remain agnostic about. However, for convenience, and to be explicit, we will assume that it occurs through the standard application of *fusion*, which precedes the application of Impoverishment. The nominal paradigms then essentially have a *flexional part* and an *agglutinative subpart*.

- (17) *Fusion-Impoverishment Correlation*  
Fusion of Case- $\phi$ -THM<sup>0</sup> correlates with DUAL Impoverishment.

Notice that the presence of fusion correlates exactly with the presence of Impoverishment, while the absence of Impoverishment correlates exactly with the presence of agglutination, as stated in (17) above. This is a new generalization

that we need to capture. It suggests that a *locality constraint* on Impoverishment is at play here. We propose that the fusion of  $\text{THM}^0$ ,  $\#^0$ , and  $\kappa^0$  into one head facilitates Impoverishment, crucially because it renders the number features, viz.  $[\pm\text{AUG}]$ , local to the gender features contained in  $n^0$ . In other words,  $n^0$  is the closest  $X^0$  that the number features c-command, but in the absence of fusion,  $\text{THM}^0$  will be the closest  $X^0$  that number features c-command:  $\text{THM}^0$  intervenes and blocks Impoverishment. This is essentially a type of *Impoverishment Intervention Effect*.<sup>3</sup> We state the locality in the following way:

## (18) STRICTLY LOCAL IMPOVERISHMENT

The trigger of Impoverishment may be contained in

- (i) the  $X^0$  targeted for Impoverishment, or
- (ii) the *closest*  $X^0$  that the target of Impoverishment c-commands.

This argues against the proposal advanced by Keine (2010), who claims that Impoverishment can never look beyond the contents of the  $X^0$  that it is accessing. A proposal along the lines of (18) is novel in the literature on Distributed Morphology and is here needed to explain the pattern of Impoverishment blocking found in the agglutinative parts of the Slovenian nominal paradigm. The only pre-existing evidence given for such a locality constraint can be found in Kallulli & Trommer (2011) who propose a similar constraint for Albanian, though for an altogether different kind of pattern, involving non-active voice morphology: they propose that Impoverishment can ‘search’ for context in the closest head that the target of Impoverishment c-commands, and also in the head that immediately c-commands the target. This second option is not encoded in (18), but it could easily be added. The novel contribution of this paper is a pattern of *Impoverishment blocking* in the nominal  $\phi$ -domain that provides evidence for (18).

To illustrate the application of (18), consider a derivation where Impoverishment applies successfully, viz. in non-dative and non-instrumental Case forms:

<sup>3</sup>Notice that the locative cases also reveal agglutinative morphology, as discussed (cf. *miz-a-h* (F.LOC.DU/PL) vs. *kost-e-h* (F.LOC.DU/PL)), but they never show DU-PL contrasts at all, which implies the presence of Impoverishment and casts doubt on the generalization stated in (17). However, this is in fact not an issue, as locative forms participate in a broader syncretism/Impoverishment pattern: consider the masculine, neuter and feminine paradigms and notice that *no* DU-PL contrasts ever surface in the locative case forms (recall that masculine gender reveals full DU-PL contrasts otherwise). Whether this is just superficial syncretism or whether it is Impoverishment is unclear at this point; if it is Impoverishment, no reference to  $n_{\text{GEN}}^0$  is needed, as the trigger is  $\kappa_{\text{LOC}}^0$  and  $\#_{\pm\text{AUG}}^0$  is the target, and these are either ‘adjacent’ or fused into a single  $X^0$ , which makes for a different pattern from the one discussed in this paper.



(19) Impoverishment in {NOM, ACC, GEN, LOC}-cases<sup>4</sup>

- i. NARROW SYNTAX:  $[\kappa_P \kappa^0 [\#_P \#^0_{\pm\text{AUG}} [\text{THMP THM}^0 [n_P n^0_{+\text{FEM}} [\sqrt{\text{RT}} ]]]]]$
- ii. PF FUSION:  $[\underbrace{\kappa^0 + \#^0_{\pm\text{AUG}} + \text{THM}^0}_{\text{fusion}} [n_P n^0_{+\text{FEM}} [\sqrt{\text{RT}} ]]]]$
- iii. PF IMPOV.:  $[\underbrace{\kappa^0 + \#^0_{\pm\text{AUG}} + \text{THM}^0}_{\text{fusion}} [n_P n^0_{+\text{FEM}} [\sqrt{\text{RT}} ]]]]$

In these forms,  $\kappa^0$ ,  $\#^0$  and  $\text{THM}^0$  undergo fusion at PF, which yields a single head. That enables the  $[\pm\text{AUG}]$ -features to be in the context of the  $[\text{+FEM}]$  feature, since  $[\pm\text{AUG}]$  immediately c-commands  $[\text{+FEM}]$ . Here, the Impoverishment rule stated in (8) applies. Now consider an instance of Impoverishment Intervention:

## (20) Impoverishment Intervention in {DAT, INST}-cases

- i. NARROW SYNTAX:  $[\kappa_P \kappa^0 [\#_P \#^0_{\pm\text{AUG}} [\text{THMP THM}^0 [n_P n^0_{+\text{FEM}} [\sqrt{\text{RT}} ]]]]]$
- ii. PF  $\neg$ FUSION:  $[\kappa_P \kappa^0 [\#_P \#^0_{\pm\text{AUG}} [\text{THMP THM}^0 [n_P n^0_{+\text{FEM}} [\sqrt{\text{RT}} ]]]]]$
- iii. PF IMPOV.:  $[\kappa_P \kappa^0 [\#_P \#^0_{\pm\text{AUG}} [\text{THMP } \boxed{\text{THM}^0} [n_P n^0_{+\text{FEM}} [\sqrt{\text{RT}} ]]]]]$

In dative and instrumental Case-forms, on the other hand, no fusion applies at PF. The result of this is agglutinative morphology:  $[\pm\text{AUG}]$  here immediately c-commands only  $\text{THM}^0$ , but crucially not  $n^0$ , which hosts  $[\text{+FEM}]$ . In other words, the closest head in the c-command domain of  $\#^0$  is  $\text{THM}^0$ .  $[\text{+FEM}]$ -context is not identified here and Impoverishment is *blocked*, which leads to the DU-PL contrasts that we observed in (11)–(14). This is an instance of Impoverishment Intervention.

This illustrates how the adoption of a locality constraint such as (18) provides a principled account of the distribution of Impoverishment in Slovenian nominal paradigms, and it successfully derives the Fusion-Impoverishment Generalization stated in (17). In sum, fusion and agglutination conspire to either allow or block Impoverishment.<sup>5</sup>

<sup>4</sup>These structures may be derived by Head Movement, but we avoid representing this in order to avoid discussing how the relations between the subparts of a complex  $X^0$  created by adjunction are defined.

<sup>5</sup>One could wonder whether the  $n^0$ , which is often null, is also not subject to fusion: in (19) it could fuse with  $[\kappa^0 + \#^0_{\pm\text{AUG}} + \text{THM}^0]$  and in (20) just with  $\text{THM}^0$ . However, when  $n^0$  is overt, as in the various cases of overt nominalizers, it is always clearly distinct from  $\text{THM}^0$ : consider  $\sqrt{\text{rož-}\emptyset\text{-a-m-i}}$  ‘flowers (INST.PL.F)’ where  $n^0$  is null, and  $\sqrt{\text{slon-its-a-m-i}}$  ‘elephants (INST.PL.F)’ where it is overt. Since the Impoverishment pattern is the same with overt nominalizers,  $n^0$  must not undergo systematic fusion with higher heads.

## 5 Conclusion

This paper has shown that the DUAL-number neutralization in LJ Slovenian truly is an active post-syntactic effect, and not some lexical restriction, because the neutralization occurs ‘too late’ to affect  $\phi$ -agreement. We have also discussed a pattern of Impoverishment blocking in subparts of Slovenian nominal paradigms. In order to derive this blocking pattern, we argued that it needs to follow from a Strict Locality Constraint, where only the contents of the immediately c-commandable  $X^0$  can be a trigger of Impoverishment.

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