

# Case-driven plural suppletion in Barguzin Buryat: A conflict between \*ABA and case containment\*

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**Abstract:** This paper examines plural suppletion in Barguzin Buryat (Mongolic, Russia), which occurs only in accusative and genitive noun phrases. The restricted distribution of this process, in particular its absence in oblique case contexts, is significant for recent research on allomorphy and the feature structure of case morphology. For much work in this vein, this form of suppletion would qualify as an “ABA” pattern, which is predicted to be unattested. Here I argue that the suppletive plural morpheme in this language is a portmanteau that expresses some of the features upon which oblique morphology also depends, thus preventing these two forms from co-occurring. Hence this suppletive plural superficially has an ABA distribution due to a paradigm gap stemming from a morphological conflict. Consequently, this pattern does not falsify the morphological theories that ban ABA patterns under normal circumstances, but rather reveals a principled exception to them. This investigation also reveals new evidence that case features have an implicational containment relationship, and that syntactic structures can sometimes fail to be uttered.

## 1 Introduction

This paper examines a process of plural suppletion in Barguzin Buryat (Mongolic, Russia), which occurs only in accusative and genitive noun phrases. The restricted distribution of this process, in particular its absence in oblique case contexts, is significant because it violates the expectations of much recent work about the internal structure of case morphemes, and the space of possible suppletion patterns. The goal of this paper is to argue that this process proves to be unexceptional, once its intricacies are examined in detail.

I use the term *suppletion* to characterize scenarios where one syntactic element corresponds to multiple contextually-determined but phonologically unrelated forms. Various recent works argue that certain generalizations about morpho-syntactically conditioned suppletion stem from the way in which the morphological component of the grammar interacts with the functional hierarchies of syntax. One such generalization is stated in (1) below. [Bobaljik \(2012\)](#) on adjectives, [Moskal \(2018\)](#) on in-/ex-clusivity, and [Smith et al. \(2019\)](#) on suppletion for case and number in pronouns, for instance, all argue with a basis in Distributed Morphology ([Halle & Marantz 1993](#); [Harley & Noyer 1999](#), a.o.) that this generalization holds for the contexts they respectively examine:

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This paper uses the following glossing conventions: ABL = ablative case, ABS = absolutive case, ACC = accusative case, COM = comitative case, DAT = dative case, DEP = dependent case, ERG = ergative case, GEN = genitive case, INST = instrumental case, NOM = nominative case, OBL = oblique case, PL1 = default plural, PL2 = suppletive colloquial plural, SG = singular, POSS = possessive, UNM = unmarked case.

(1) **Generalization about suppletion rules in syntactic containment hierarchies**

*If an element  $\alpha$  undergoes suppletion in the context of a syntactic feature/category  $\beta$ , then  $\alpha$  will also undergo suppletion in more complex contexts that entail the presence of  $\beta$ .*

By building theories that derive (1), works like those mentioned above make predictions about possible suppletion patterns, and importantly, about impossible ones as well. Among the patterns expected to be impossible is the “ABA” pattern, which describes a form of suppletion that fails to occur in an environment that should contain the needed contextual trigger. Many works in this vein argue that ABA patterns are indeed basically absent from human language, though as this paper shows, this claim is not entirely correct.

The generalization in (1) above is only predicted to hold in contexts in which there is an implicational containment hierarchy of syntactic features. Several works have argued that case involves a hierarchy of the relevant type (Blake 1994; Caha 2009, 2013; Zompi 2017; Smith et al. 2019, a.o.). Caha (2009), for instance, argues for the hierarchy in (2) below. This hierarchy states, among other relations, that the feature set corresponding to accusative case properly contains nominative case, but is properly contained by the feature set corresponding to genitive case, and so on:

- (2) **Case containment hierarchy** (Adapted from Caha 2009, p. 24, ex. 38)  
[[[[[ [ NOM ] ACC ] GEN ] DAT ] INSTR ] COM ]

While more articulated than the hierarchy that this paper will use, (2) makes an assertion common to other proposed case hierarchies: that oblique cases are highest in the hierarchy. In (2), for instance, nominative, accusative, and genitive features are all contained by dative case, the lowest oblique case in the hierarchy. Importantly, when combined with (1) above, a hierarchy like (2) leads to the prediction in (3):

(3) **Prediction about suppletion in oblique cases under the case containment hypothesis**

*Any suppletion process triggered by accusative or genitive case should also be triggered by oblique cases.*

In other words, if oblique cases contain accusative / genitive features, then we automatically expect any suppletion process that accusative / genitive features trigger to also apply in oblique case contexts. Smith et al. (2019) argue, based on a cross-linguistic study of suppletion in pronouns, that a conceptually analogous prediction of this form is indeed correct. However, as we’ll see next, Barguzin Buryat has an instance of suppletion that occurs in accusative and genitive contexts, but not oblique ones. This phenomenon thus has what the theories under discussion would classify as an unexpected and puzzling ABA pattern. The goal of this paper is to solve this puzzle.

## 1.1 Preview of the facts to be explained

The basic plural suffix in Barguzin Buryat is *-nuud*, which can appear in nominals of any case—nominative, accusative, genitive, and the various oblique cases. Thus I assume that *-nuud* is the default exponent of plurality in this language. In (4) below we see this morpheme in an accusative context:

(4) **Default plural *-nuud***

bi miisgəi-**nuud**-ijə xaranab  
1SG cat-PL1-ACC see  
'I see cats'

The default plural *-nuud* contrasts with its more restricted variant *-nuufa*, which speakers characterize as a dialectical / colloquial / informal form specific to their regional form of Buryat ("Barguzinskij"). Since there is no phonological explanation for the *-nuud/-nuufa* alternation (as I discuss in detail later on), nor a semantic difference between these two plural forms, I regard *-nuufa* as a suppletive variant of *-nuud*. While *-nuud* can appear in any context, the *-nuufa* plural is limited to accusative and genitive contexts, as (5) previews:

(5) ***-nuufa* plural in accusative and genitive contexts**

- a. bi miisgəi-**nuufə** xaranab  
1SG cat-PL2.ACC see  
'I see cats'
- b. miisgəi-**nuufə** χuul-nuud uta  
cat-PL2.GEN tail-PL long  
'The cat's tails are long'

As (6a) shows, *-nuufa* cannot appear in nominative contexts, which is not surprising for the theories under discussion here. More importantly, however, *-nuufa* also cannot occur with oblique cases, as (6b) below shows in a dative context:

(6) a. **No *-nuufa* plural in nominative contexts**

miisgəi-[**nuud**/\***nuufə**]-∅ jərəə  
cat-PL1/PL2-NOM came  
'The cats came'

b. **No *-nuufa* plural in oblique contexts**

bi miisgəi-[**nuud**/\***nuufə**]-tə mʰaxa ʊgəəb  
1SG cat-PL1/PL2-DAT meat gave  
'I gave meat to the cats'

Since *-nuufa* can occur in accusative and genitive contexts, its impossibility in oblique contexts violates the prediction in (3) above. This is the challenge that this paper is concerned with.

Notice that both the *-nuud* and *-nuufa* plurals contain a sub-part *-nuu*. As I show later on, there is evidence that this is an independent element, since it can be excluded from some plural NPs. Therefore I will factor this morpheme out in the final analysis, which I will frame in terms of an alternation between two plural variants *-d* and *-fa*. For simplicity of exposition, I will speak in terms of *-nuud* and *-nuufa* for the first part of the paper, and justify their decomposition later on. This issue of morpheme segmentation does not affect the fundamental puzzle, or the mechanics of the analysis.

## 1.2 Preview of the analysis: Ineffability due to overlap

For concreteness, I frame much of this paper’s discussion in terms of a theory along the lines of Distributed Morphology. For this approach, the syntactic derivation builds an abstract hierarchical structure and then passes it on to the PF component of the grammar. This component then assigns morpho-phonological form to the terminal nodes of the syntactic tree, depending on the features they bear. As mentioned above, this framework is the basis for many works on the \*ABA generalization and related topics. Much research in this empirical domain also assumes the Nanosyntax approach to morpho-syntax (Starke 2009; Caha 2009, 2019; De Clercq & Vanden Wyngaerd 2017, a.o.). In the latter part of this paper, I will show how the puzzle I focus on here can be resolved under either of these frameworks.

I argue that the unexpected gap in the distribution of *-nuufa* is a consequence of the syntactic features this morpheme expresses. Notice that in (4), accusative morphology (*-iijə*) affixes straightforwardly to the default plural *-nuud*. However, in (5a), the suppletive plural *-nuufa* appears without the typical accusative marking we saw in (4). As we’ll see later on, combining *-nuufa* with typical accusative or genitive morphology results in an unacceptable form. Thus *-nuufa* evidently somehow bleeds the appearance of those case affixes. I hypothesize that this is so because *-nuufa* is a portmanteau of plural features, and accusative / genitive features. Since *-nuufa* alone expresses all of these features, independent accusative / genitive marking need not, and cannot, occur with it.

With this hypothesis in mind, notice that according to a case hierarchy like (2) above, oblique morphology corresponds to a structure including accusative / genitive features. For this reason, assuming that syntactic features are only morpho-phonologically realized once (Bobaljik 2000), insertion of the portmanteau *-nuufa* is expected to bleed insertion of an oblique morpheme: the former expresses features that the latter requires, and thus, the two cannot co-occur. In particular, I argue that the conflicting needs of these two elements make the relevant structures morpho-phonologically inexpressible and thus ungrammatical. The hypothesis that ineffability can be a source of ungrammaticality has precedent in the literature (most recently from Coon & Keine 2020, a.o.), as I discuss later on.

## 1.3 Contents of the paper

Next, section 2 provides background on the \*ABA generalization and theories of case containment. Section 3 describes the basics of Barguzin Buryat morpho-phonology. Section 4 provides the details of this language’s plural morphology. Section 5 describes the conflict previewed above that restricts the distribution of plural morphology in this language. Section 6 discusses how the account can be formally implemented in two pertinent theories of morpho-syntax—Distributed Morphology and Nanosyntax. Finally, section 7 contains the concluding remarks.

## 2 Background on \*ABA and case containment

As previewed above, Caha (2009) argues for the case hierarchy in (7a) below. Zompì (2017) and Smith et al. (2019) argue that this hierarchy should be compressed into the structure in (7b), which is organized in terms of the case categories proposed by Marantz (1991). In this simpler hierarchy, oblique cases ([OBL]) contain “dependent” ([DEP]) cases (accusative and ergative), which in turn

contain “unmarked” ([UNM]) cases (nominative and absolutive):

### (7) Two versions of case containment

- a. [ [ [ [ [ [ NOM ] ACC ] GEN ] DAT ] INSTR ] COM ]
- b. [ [ [ UNM(=NOM/ABS) ] DEP(=ACC/ERG) ] OBL(=ABL/COM/DAT/INST...) ]

While a hierarchy like (7b) will be mostly sufficient for this paper, more must be said about genitive case. In (7a) genitive case is adjacent to (and contains) accusative. [Zoppi \(2017\)](#) notes that the nature of genitive morphology is cross-linguistically rather variable, while [Smith et al. \(2019\)](#) exclude genitive from their study given that for them, the possibility of confounding genitive pronouns with syntactically distinct possessive pronouns is problematic. For these reasons these works mostly set aside genitive case, which is thus omitted from (7b). However, since the suppletion process in Barguzin Buryat that the present paper focuses on is triggered by accusative and genitive cases as shown in (5) above, this paper cannot afford to be agnostic about the place of genitive in the case hierarchy.

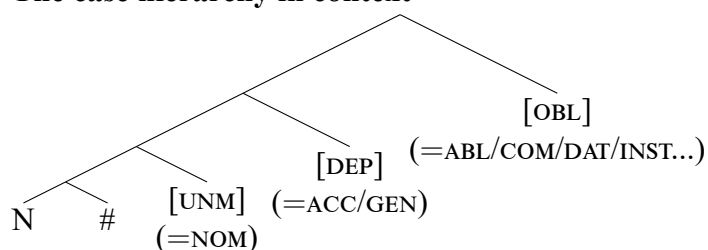
Thus while I will make use of a hierarchy like (7b) for the rest of this paper, I add to (7b) the qualification that genitive case is contained by oblique cases, as encoded in Caha’s (7a). I reconcile this concept with (7b) by hypothesizing that in Barguzin Buryat, genitive case is in a natural class with accusative in that it is also a “dependent” case. For the purposes of this paper, I will thus assume that dependent case in Barguzin Buryat is realized with either genitive or accusative morphology depending on syntactic context—the former arising when the relevant NP is embedded in a nominal environment (as in possessive structures), and the latter arising otherwise. See footnotes 1 and 4 for further discussion of why the unification of accusative and genitive is justified for this language.<sup>1</sup>

With my assumptions about the case hierarchy now stated, consider the hierarchy in the context of the rest of the NP, as in (8) below. Here the nominal root N and the # node are dominated by the case structure defined by the hierarchy in (7b) above, with genitive case included under the [DEP] node, and the irrelevant cases absolutive and ergative omitted. The # node sits between N and the case layer, as seen in the linear surface form of the Barguzin Buryat nominal phrase. This structure shows the maximal amount of case nodes, which corresponds to an oblique structure. An NP with accusative or genitive marking would lack the [OBL] node, while a nominative NP would have only the [UNM] node:

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<sup>1</sup>Accusative and genitive case pattern together in Barguzin Buryat not only in that they both allow *-nuufA* suppletion, but also in other aspects of their morpho-phonology, as discussed in the next section. Thus it is reasonable to treat these cases as members of one natural class for this language. Classifying these cases as being versions of “dependent” case is one way of achieving this unification. While some works take genitive case to be an “unmarked” case and thus essentially the nominal-internal counterpart of nominative ([Marantz 1991](#); [Levin & Preminger 2015](#), a.o.), cross-linguistically it is common for genitive morphology to be related to or syncretic with “marked” cases like dative and ergative ([Comrie 1978](#); [Baker 2015](#)). [Baker \(2015\)](#) points out that the syntax of possession is parallel to the configuration in which dependent ergative case is taken to be assigned in [Marantz \(1991\)](#) and related works, and that thus some instances of genitive case can be considered parallel to dependent ergative. In contrast, Baker argues that genitive is not parallel with dependent accusative case, though he notes two languages where genitive and accusative are syncretic—Martuthunira (Pama-Nyungan) and Karachai-Balkar (Turkic). While the precise nature of genitive case is a subject of ongoing debate (see for instance [Harðarson 2016](#); [van Baal & Don 2018](#)), it is clear that there is a well-established relationship between “marked” cases and genitive.

## (8) The case hierarchy in context



With this structure in mind, consider the pronunciation rules in (9) below, which provide a first-pass description of plural morphology in Barguzin Buryat. These rules have a format characteristic of the morpho-phonological assignment rules common in Distributed Morphology. In this framework, a syntactic node that has both a default form and a distinct allomorph that occurs under more specific circumstances is described as having two corresponding Vocabulary Insertion rules: a context-sensitive rule that assigns the node in question a special form, as well as an *elsewhere* rule that applies by default when the more specific rule is unable to apply. This is what we see in (9), which states that the Barguzin Buryat plural is realized as *-nuufA* in accusative / genitive contexts (9a), but *-nuud* otherwise (9b):

### (9) Realization rules for #<sub>[PL]</sub> in Barguzin Buryat (preliminary version)

- a. #<sub>[PL]</sub> → *-nuufA* /      ] DEP<sub>(=ACC/GEN)</sub>
- b. #<sub>[PL]</sub> → *-nuud* / elsewhere

Importantly, if oblique structures properly contain accusative / genitive features, then the rule in (9a) predicts *-nuufA* to be available not only in accusative / genitive contexts, but in oblique ones as well. This would be an “ABB” distribution. However, as previewed above, in reality *-nuufA* cannot appear in oblique NPs. Since oblique contexts should contain the features necessary for *-nuufA* to occur, this morpheme has an unexpected “ABA” distribution.<sup>2</sup>

## 3 The basic morpho-phonology of Barguzin Buryat

Here I summarize the basics of Barguzin Buryat morpho-phonology. Since this paper is concerned with a morphological phenomenon, familiarity with the language’s syntax is not vital. It is sufficient to state that Buryat is typical of Mongolic and “Altaic” more broadly, in being strictly head-final and having *pro*-drop, productive scrambling, and suffixing agglutinative morphology. See [Tatevosov et al. \(To appear\)](#) for more information on the syntax of this language.

### 3.1 Phonology

Analyzing the morphology of Barguzin Buryat requires familiarity with a few phonological processes, reported here following the description in [Staroverov & Zelensky \(To appear\)](#). This paper

<sup>2</sup>A reviewer notes that it is prudent to distinguish two varieties of allomorphy when investigating the \*ABA generalization—allomorphy of full forms (for instance of an entire pronoun, as in the majority of the data examined by [Smith et al. 2019](#)) versus allomorphy applying to just a sub-part of a word. While full form ABA suppletion is not obviously attested, there is a growing body of evidence for ABA patterns in sub-part suppletion (for instance in [Caha \(2017\)](#) and [Middleton \(2020\)](#)), which the present paper adds to. I discuss this topic further in the concluding remarks.

adopts the transliteration used in that work (as well as in [Tatevosov et al. To appear](#)), which is an IPA-based representation of the original Cyrillic Buryat orthography. The most significant point of divergence between the original orthography and this transliteration system concerns diphthongs. In careful speech, the diphthongs ⟨ei⟩, ⟨əi⟩, ⟨oi⟩ and ⟨ai⟩ are pronounced as expected following the IPA, but in more natural colloquial speech, the first three diphthongs are merged to [e:], and the latter to [ɛ:]. This language also has vowel harmony, but the details of this process do not affect the facts under examination here in any significant way. It is only necessary to be aware of the harmonizing low vowel /A/, which is realized as /a/, /ə/, or /o/, depending on the phonological properties of the stem that it affixes to.

The forms created by agglutinating nominal morphology in this language are frequently affected by its two strategies for avoiding hiatus (vowel-vowel sequences). First, when a heavy vocalic segment (long vowel or diphthong, consisting of more than one *mora* [=⟨ $\mu$ ⟩]) is adjacent to a short vowel, the short vowel deletes, as shown in (10):

- (10)  $V\mu \rightarrow \emptyset / \_ \_ V\mu\mu, V\mu\mu \_ \_$  (Staroverov & Zelensky, ex. 20)
- a. *wolf-ABL*  
ʃono + aan → ʃon~~o~~aan
  - b. *ask-IMP*  
gui + A → gui~~A~~

Second, when two heavy vocalic segments are adjacent, neither is deleted. Rather, the segment /g/ (phonetically often [ɣ/ʁ]) appears between them, as (11) exemplifies. This is a typologically unusual epenthesis strategy, which is subject to some qualifications as [Staroverov \(2016\)](#) argues, but the level of description in (11) is sufficient for the present paper.

- (11)  $\emptyset \rightarrow g / V\mu\mu \_ \_ V\mu\mu$  (Staroverov & Zelensky, ex. 21)
- a. *gun-INST*  
buu + AAr → buugaar
  - b. *chicken-ABL*  
tax<sup>h</sup>aa + AAn → tax<sup>h</sup>aaagan

## 3.2 Case morphology

As is cross-linguistically frequent, nominative case in Barguzin Buryat is null. Oblique cases involve straightforward suffixation of *-tA* (dative), *-tAi* (comitative), *-AAr* (instrumental), or *-aan/-χAA* (ablative), as we will see in various examples throughout the paper.

In contrast, accusative and genitive marking are more complex, in a way that is phonologically determined. When affixing to a nominal form ending in a long vowel or diphthong, accusative case is *-jə*, while genitive case is *-n*:

- (12) **Accusative / genitive when following a heavy vocalic segment**
- a.  $\text{əʒii-n}$   
mother-GEN
  - b.  $\text{noχoi-n}$   
dog-GEN

- c. tax<sup>h</sup>aa-jə  
chicken-ACC
- d. ʒodoo-jə  
fir.tree-ACC

However, when suffixing to a nominal form ending in a short vowel or consonant, accusative case marking is *-Aijə/-ijə*, while genitive case marking is *-Ain/-iin*. Since these accusative and genitive forms have an initial heavy vocalic segment, when affixing to a nominal form ending in a short vowel the hiatus process illustrated in (10) above deletes that short vowel, as (13c-d) below show.<sup>3</sup>

(13) **Accusative / genitive when following a consonant or short vowel**

- a. ail-ain/iin  
family-GEN
- b. ail-aijə/ijə  
family-ACC
- c. tarx<sub>i</sub> → tarx-aijə/ijə  
head head-ACC
- d. tarx<sub>i</sub> → tarx-ain/iin  
head head-GEN

It is descriptively correct to hypothesize the following: Fundamentally accusative marking is *-jə*, and genitive marking is *-n*. Both of these morphemes must affix to a heavy vocalic segment. When the nominal form being affixed to does not end in a heavy vocalic segment, an epenthetic element *-Ai/-ii-* is inserted to satisfy this need.<sup>4</sup> While alternative analyses of these facts about accusative and genitive morphology are conceivable, a descriptive level of understanding is all that the present paper will require.

## 4 The empirical details of plural morphology

As the introduction previewed, the basic plural morpheme in this language is *-nuud*. This morpheme is not context-sensitive, and thus can appear in NPs of any case, as (16) below shows:

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<sup>3</sup>The accusative forms *-Aijə* and *-ijə* are generally in free variation, as are the genitive forms *-Ain* and *-iin*, though for some NPs one variant is judged as preferable. A generalization about when one variant is preferred over the other is not straightforwardly evident. Thus in my best estimation, this is a matter of lexical idiosyncrasy. The variants of accusative and genitive shown in (13) are also sometimes truncated to just *-Ai/-ii-*. Since these additional facts about accusative and genitive marking do not directly relate to the patterns of plural marking that this paper is concerned with, I leave these topics to future work.

<sup>4</sup>As described in the previous section, I propose that accusative and genitive in Barguzin Buryat are manifestations of a more abstract case category—“dependent” case. Grouping these cases together yields a straightforward way of understanding why only these cases are subject to the plural suppletion process that is the focus of this paper. Furthermore, we can understand why only accusative and genitive case in this language have the requirement to affix to a heavy vocalic segment by defining this as a requirement only of dependent cases. Overall then, in more than one way, accusative and genitive case in Barguzin Buryat behave as members of a natural class as far as morpho-phonology is concerned.



(14) **-nuud plural occurs with all cases**

a. **Nominative**

miisgəi-**nuud**-∅ mairana  
cat-PL1-NOM meow

‘Cats meow’

b. **Accusative**

bi buuza-**nuud-ijə** ədʲəəb  
1SG dumpling-PL1-ACC eat

‘I eat dumplings’

c. **Genitive**

galuu-**nuud-ain** dali-nuud jəxə  
goose-PL1-GEN wing-PL1 big

‘Geese’s wings are big.’

d. **Oblique**

badma xadxuur-**nuud-aar** ədʲəəlnə  
Badma fork-PL1-INST ate

‘Badma ate with forks’

In contrast, while the alternative plural form *-nuufa* can occur in accusative and genitive environments (15-16),<sup>5</sup> it cannot occur in nominative ones (17).

(15) **-nuufa possible in accusative contexts**

a. bi buuza-**nuufa** ədʲəəb  
1SG dumpling-PL2.ACC ate

‘I ate dumplings’

b. badma əgəʃə-**nuufa** zolgoo  
Badma sister-PL2.ACC met

‘Badma met sisters’

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<sup>5</sup>This paper focuses on instances of *-nuufa* on objects and possessors, since these are the most basic environments in the language for accusative and genitive case, respectively. The subjects of embedded clauses can also sometimes be either accusative or genitive (Bondarenko 2018; Tatevosov et al. To appear), and as expected, when such subjects are plural, *-nuufa* is available for them:

- i. a. ojuna [koʃka-**jə**/-**nuufa** zaguu ədjəə] gəʒə hanana  
Ojuna-NOM cat-ACC/PL2.ACC fish ate C thinks  
‘Ojuna thinks that the cat(s) ate fish.’  
b. [koʃk-**iin**/-**nuufa** zaguu ədj-ə:ʃ-i:n] sajan-aijə gaaruulaa  
cat-GEN/PL2.GEN fish eat-NML-3POSS Sajana-ACC angered  
‘That the cat(s) ate the fish angered Sajana.’

Thus this alternation is not about objects or possessors in particular, but accusative and genitive case in general.

(16) **-nuufA possible in genitive contexts**

- a. əgəfə-**nuufə** nɛxəd χain  
sister-PL2.GEN friend nice  
‘The sisters’ friends are nice’
- b. fono-**nuufa** fudən xursa  
wolf-PL2.GEN tooth sharp  
‘Wolf’s teeth are sharp’

(17) **No -nuufA in nominative contexts**

- a. \*noxoi-**nuufa** jəɾəə  
dog-PL2 came  
‘Dogs came’
- b. \*buuza-**nuufa** amtatai  
dumpling-PL2 delicious  
‘Dumplings are delicious’

Notice that, as (14b/c) above show, typical accusative and genitive marking stack on top of the default plural. Contrast this with (15) and (16), where we see *-nuufA*, but no accusative or genitive marking: in both cases, only *-nuufA* appears. As (18) below shows explicitly, *-nuufA* in fact cannot be combined with typical accusative / genitive marking. Attempting such strings results in unacceptability, a fact which will be important for the coming analysis.

A few notes on the forms tested in (18) are necessary. As mentioned previously, for nominal forms that do not end in a heavy vocalic segment, accusative and genitive marking respectively take on the forms *-Aijə/-ijə* and *-Ain/-iin*. Thus an NP marked with *-nuufA*, which ends in a short vowel /A/, would be expected to use these case forms. These phonologically-conditioned variants of accusative and genitive case begin with a heavy vocalic segment. Therefore stacking such case markers on top of *-nuufA* should cause the final short vowel of *-nuufA* to be deleted, given the hiatus avoidance process illustrated in (10) which triggers deletion of a short vowel adjacent to a heavy vocalic segment. This expected phonological manipulation is performed in the examples of (18), which are nevertheless unacceptable.<sup>6</sup>

(18) **-nuufA is incompatible with typical accusative / genitive marking**

- a. \*bi miisgəi-**nuuf-iijə/əijə** xaranab  
1SG cat-PL2-ACC see  
‘I see cats’
- b. \*bi fono-**nuuf-iijə** xaranab  
1SG wolf-PL2-ACC see  
‘I see wolves’

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<sup>6</sup>Since /g/-epenthesis only occurs between heavy vocalic segments as shown in (11) above, we do not expect the examples of (18) to be grammatical if /g/ were inserted between *-nuufA* and the accusative/genitive marker, instead of deleting the final short vowel of *-nuufA*. Such examples are indeed unacceptable, but not shown here due to space constraints.

- c. \*miisgəi-**nuuf-əin/iin** χүүл-нүүд uta  
 cat-PL2-GEN tail-PL1 long  
 ‘Cats tails are long’
- d. \*fɔno-**nuuf-ain** судан xursa  
 wolf-PL2-GEN tooth sharp  
 ‘Wolves teeth are sharp’

Finally, as previewed in the introduction, *-nuufA* is also distinct from the default plural marker in that it cannot occur in oblique contexts. This is shown exhaustively in (19) below, where we see that regardless of whether a hiatus avoidance process would apply, the resulting form is unacceptable. Here we also see that *-nuufA* is not only incompatible with oblique morphology, but also does not permit the omission of oblique morphology. Since we’ve seen that *-nuufA* is acceptable in accusative / genitive contexts provided that typical accusative / genitive marking is omitted, we might have expected *-nuufA* to be acceptable in oblique contexts provided that typical oblique marking is absent. This is, however, not so.<sup>7</sup> Thus *-nuufA* is evidently completely unable to occur in oblique case environments.

(19) ***-nuufA* cannot occur in oblique contexts whether oblique marking is present or not**

- a. bi miisgəi-**nuud-tə/\*nuufə-tə/\*nuufə** mʲaxa ʊgəəb  
 1SG cat-PL1-DAT/PL2-DAT/PL2 meat gave  
 ‘I gave meat to the cats’
- b. bi miisgəi-**nuud-təi/\*nuufə-təi/\*nuufə** xylgana alaab  
 1PL cat-PL1-COM/PL2-COM/PL2 mouse killed  
 ‘The cats and I together killed the mice’
- c. bi miisgəi-**nuud-χəə/\*nuufə-χəə/\*nuufə** ɡʷi-ʒə arilaab  
 1PL cat-PL1-ABL/PL2-ABL/PL2 run-CNVB go.away  
 ‘I ran away from the cats’

<sup>7</sup>The behavior of *-nuufA* is superficially suggestive of this morpheme having a requirement to be aligned to the right edge of the word, and thus not to be followed by any additional suffixes. The interaction of *-nuufA* with possessive markers indicates that there is no such general rule. In Barguzin Buryat, possessed noun phrases include a suffix agreeing with their possessor. Such possessive marking stacks on top of typical case marking (ia-b). This possessive marking also stacks on top of *-nuufA* (ic-d).

- i. a. ajmag-ijə-**mni**  
 district-ACC-1SG.POSS
- b. noxoi-n-**fni**  
 dog-GEN-2SG.POSS
- c. fɔno-nuuf-**iin**<sup>l</sup>  
 wolf-PL2.ACC/GEN-3SG.POSS
- d. buuza-nuuf-**iimni**  
 dumpling-PL2.ACC/GEN-1SG.POSS

This paper argues for an account that correctly predicts that *-nuufA* interacts only with case marking, but not with other affixes.

- d. bi miisgəi-**nuud-aan**/\***nuuf-aan**/\***nuufə-gaan**/\***nuufə** gui-зə arilaab  
 1PL cat-PL1-ABL/PL2-ABL/PL2-ABL/PL2 run-CNVB go.away  
 ‘I ran away from the cats’
- e. bi miisgəi-**nuud-əər**/\***nuuf-əər**/\***nuufə-gəər**/\***nuufə** omogorxonob  
 1PL cat-PL1-INST/PL2-INST/PL2-INST/PL2 be.proud.of  
 ‘I’m proud of the cats’

The fact that *-nuufA* causes legal omission of typical accusative / genitive marking, but is unacceptable in oblique environments whether usual oblique marking is present or not, will be central to the coming analysis.

#### 4.1 The plural alternation is not phonological

The alternation between *-nuud* and *-nuufA* is not the result of a phonological process. The most straightforward phonological analysis of these plural forms would be to consider *-nuufA* a form derived from the plural *-nuud* plus a special case morpheme *-fA* that is syncretic for accusative and genitive, whose presence triggers deletion of the final /d/ of *-nuud* due to a phonological process that simplifies the potential [dʃ] cluster. Consistent with such an analysis is the fact that *-nuudfA* is not a possible accusative or genitive form, as (20) shows:

(20) ***-nuudfA* is not a possible plural accusative/genitive form**

- a. xarxur-nuu(\*d)fa  
 fork-PL.ACC/GEN
- b. galuu-nuu(\*d)fa  
 goose-PL.ACC/GEN
- c. эгэҗэ-nuu(\*d)fə  
 girl-PL.ACC/GEN

However, clusters with a consonant + [ʃ] are generally permitted in Barguzin Buryat, and indeed, forms with [dʃ] are possible outside of contexts like (20). This can be seen by combining the 2nd person singular possessive marker *-fni* with various nominal forms ending in /d/, as in the examples of (21). Most important of these is (21a), where we see the plural *-nuud* combining with such possessive morphology in a transparent way, without any deletion:<sup>8</sup>

(21) **[dʃ] is a possible cluster**

- a. buuza-nuud-fni amtatai  
 dumpling-PL1-2SG.POSS tasty  
 ‘Your dumplings are tasty.’
- b. basaga-d-fni  
 girl-PL1-2SG.POSS  
 ‘Your girls’

<sup>8</sup>Example (21b) also involves a plural, but a “short” plural *-d* rather than the full plural form *-nuud*. Since the *-nuud* component of plural forms can sometimes be dropped, I will analyze *-nuud* as being a separate morpheme, as mentioned in the introduction and described in section 4.2 below.

- c. buryad-*f*ni      *χ*aixan  
 buryad-2SG.POSS beautiful  
 ‘Your Buryat (person) is beautiful’

Since [dʃ] is independently permitted by the phonology of this language, there is no non-stipulative phonological explanation for the *-nuud/-nuufA* alternation. Thus I take this alternation to involve syntactically conditioned suppletion (mediated by a register difference, as discussed further in section 4.3 below), which as such raises a puzzle for the theories of case containment and suppletion described at the beginning of this paper.<sup>9</sup>

Before proceeding to a solution for this puzzle, the next two subsections describe some additional details about the nature of this plural morphology that will help clarify the coming analysis.

## 4.2 The morphological decomposition of plural marking

Here I will discuss a final fact about the morphological structure of plural marking in this language. So far, I have spoken in terms of two plural forms *-nuud* and *-nuufA*. These both contain a sub-part *-nuu*. In principle, it is conceivable either that this is a synchronic coincidence (perhaps with a diachronic explanation), or that *-nuu* is in fact a separate morpheme in the synchronic grammar. In fact, there is evidence suggesting that the latter hypothesis is the correct one. In particular, with certain nouns (often animate ones, but perhaps not only) *-nuu* may be excluded, leaving behind *-d* as the only morphological expression of plurality:

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<sup>9</sup>A reviewer asks whether *-nuufA* might be derived by affixing the accusative *-jə* to *-nuud*, resulting in a form *-nuudjə* that phonology converts into *-nuufA*. As the reviewer notes, such an account would describe the facts if we suppose that *-jə* can behave as a syncretic expression of accusative and genitive case in the colloquial grammar (at least in plural contexts). There are several reasons to suspect that such an analysis is not correct.

First, I am aware of no evidence that *-jə* can act as an exponent of genitive case in the colloquial grammar. Though this possibility was not tested during my fieldwork, no examples of this variety are attested in the data available to me.

Second, this hypothesis requires positing that the cluster /dj/ is phonologically converted into [ʃ]. As far as I am aware, Barguzin Buryat does not have /Cj/ clusters per se. However, as [Staroverov & Zelensky \(To appear\)](#) describe, this language does have productive consonant palatization, and therefore has a wide variety of forms containing instances of /Cʃ/, which are often phonetically similar to /Cj/ clusters. Importantly, [dʃ] is attested in the language, and is clearly a voiced alveolar plosive combined with palatization (and perhaps a residual glide), rather than a segment anything like [ʃ]. We see this in examples (14b-d) and (15a) of this paper for the root *ədʲə* (‘eat’), for instance. Since the conversion of /dj/ into [ʃ] would presumably involve a process like palatization, the fact that palatized [d] does not become a palatal fricative suggests that such a phonological process is not at work in the formation of *-nuufA*. Further, to derive [ʃ] from /dj/ it would also be necessary to posit the application of devoicing. Since both /ʃ/ and /ʒ/ are productive phonemes in this language, it is unclear what would motivate such devoicing.

Finally and most decisively, there is a straightforward difference between the *-nuufA* plural and the accusative *-jə* which shows that the former is not derived from the latter. For the hypothesis under consideration, the *-fA* component of *-nuufA* is a phonologically modified version of the accusative *-jə*. However, this *-fA* contains a harmonizing low vowel /A/, while the accusative *-jə* contains a non-harmonizing vowel /ə/. The harmonizing property of *-nuufA* can be seen by comparing (15a) and (15b): In the former, *-nuufA* affixes to the noun root *buuza* (‘dumpling’), with which *-nuufA* harmonizes to become [nuufA]. In the latter, *-nuufA* affixes to the root *əgəʃə* (‘sister’), with which *-nuufA* harmonizes and becomes [nuufə]. In contrast, the accusative *-jə* is phonologically consistent in all environments, since it does not contain a harmonizing vowel. This morpho-phonological difference demonstrates that *-nuufA* is not derived via affixation of the accusative *-jə* to the plural *-nuud*.

(22) **-nuud plural versus -d plural**

- a. miisgəi-(**nuu**)**d** mairana  
cat-PL meow  
'Cats meow'
- b. mori-(**nuu**)**d** χaixan  
horse-PL pretty  
'Horses are pretty'
- c. modo-(**nuu**)**d** χaixan  
tree-PL pretty  
'Trees are pretty'

Furthermore, it is possible for the *-d* plural to alternate with a form *-fA*:

(23) **-d/-fA plural alternation in the absence of -nuu**

- a. nɪxə-**d** jərɛə  
friend-PL came  
'The friends came'
- b. maana-**d** jərɛəbdi  
1P-PL came  
'We came'
- c. bi nɪxə-**fə** xaranab  
1SG friend-PL.ACC see  
'I see friends'
- d. (*pro*) maana-**fə** duudaa  
1P-PL.ACC called  
'Somebody called us'

These facts suggest that *-nuud* and *-nuufA* actually consist of a separate element *-nuu* that is correlated with plurality but not necessarily a plural marker itself, and an element *-d* or *-fA*, which is genuine plural morphology.<sup>10</sup> I will thus factor *-nuu* out of the coming analysis. This decision does not alter the puzzle that this paper focuses on. Given the concepts described earlier, any morphological process that is available in accusative and genitive cases, but not oblique ones, is mysterious. Since *-nuu* was present in all the relevant examples reported in this paper until now, the puzzle that those facts pose is not affected by uniformly factoring out *-nuu*. Once this is done, the relevant puzzle is conceptually the same, though cast in terms of *-d* versus *-fA* rather than *-nuud* versus *-nuufA*.

There are multiple ways of analyzing *-nuu*. For instance, this element could be part of a decomposed structure for number (Harbour 2014, a.o.) or an allomorph of a functional head like  $n^0$  (Embick & Marantz 2008; Embick 2010, a.o.) in plural contexts (though optionally silent in certain NPs, as we've seen). However, the nature of this element does not have a direct bearing on the examination of the *-d/-fA* alternation. Thus in the coming analysis, for simplicity of exposition I will opt to diagram *-nuu* as a sub-part of the noun, beneath the nodes encoding number and case.

<sup>10</sup>The existence of plural marking consisting of one obligatory component and another optional component is known of in other languages. See for instance De Belder (2018) on Breton, and references therein.

### 4.3 A note on the role of register

Superficially, the *-d* and *-fA* plural variants are in free variation in accusative / genitive contexts. However, as mentioned in the introduction, the *-fA* form is characterized by speakers as dialectal or colloquial. Based on this, I hypothesize that while the only plural morpheme in the neutral register is *-d*, the colloquial grammar contains both the lexical items *-d* and *-fA*. For concreteness, I will assume that the *-fA* plural is obligatory in the colloquial register in accusative / genitive contexts. However, since the use of that register is not itself obligatory, *-fA* is superficially optional.<sup>11</sup> With these considerations made salient, the full range of relevant Barguzin Buryat facts can be organized as follows:

(24) **Case morphology in plural NPs in Barguzin Buryat**

	<i>Neutral register</i>	<i>Colloquial register</i>
<i>Nominative</i>	N(-nuu)- <b>d</b> -∅	N(-nuu)- <b>d</b> -∅
<i>Accusative</i>	N(-nuu)- <b>d</b> -Aiə/iiə	N(-nuu)- <b>fA</b>
<i>Genitive</i>	N(-nuu)- <b>d</b> -Ain/iin	N(-nuu)- <b>fA</b>
<i>Oblique</i>	N(-nuu)- <b>d</b> -ABL/COM/DAT/INST...	*

The next section provides an explanation for the impossibility of *-fA* in oblique contexts. In brief, I will argue that the morpho-syntactic features *-fA* expresses overlap with those required by oblique morphology, such that the two cannot co-exist, resulting in a paradigm gap in the colloquial register. This gap is reflected by the \* in the above table. As a result of this conflict, only the default plural *-nuud* is ever seen to co-occur with oblique morphology.

## 5 Portmanteau overlap and accidental ABA via ineffability

The following analysis depends on one additional assumption about case morphology in general. If there is a case containment hierarchy like (8) above for which cases beyond nominative involve additional structure, we must explain why case morphology in many languages is not internally complex in a surface-evident way. Smith et al. (2019) argue that in some languages, such as Khanty and Kalderaš Romani, case morphology is in fact surface-evidently complex in the manner that the case hierarchy predicts to be possible. In contrast, for languages with mono-morphemic case marking, I assume that all features of the case hierarchy present in a given context are expressed by a single portmanteau morpheme. This is essentially the view taken in Caha (2009), whose Nanosyntactic approach to case entails that most case morphemes are mapped to a constituent containing several nodes of the hierarchy.

Since Barguzin Buryat is a language with mono-morphemic case morphology, I thus posit the following for this language, building from the case hierarchy in (8) above: nominative case expresses the feature [UNM] (25a), accusative and genitive case express the feature set [UNM DEP] (25b), and oblique cases express the set [UNM DEP OBL] (25c).

<sup>11</sup>Taking *-fA* to be obligatory within the grammar it inhabits is consistent with the facts, and simplifies the coming analysis. However, even if *-fA* were simply optional in accusative / genitive contexts, the fact that it cannot occur in oblique contexts would still be puzzling, if oblique cases contain accusative / genitive features.

(25) **Mono-morphemic expression of the case layer as a portmanteau**

- a. **NOM morphology**  
[N # UNM]
- b. **ACC/GEN morphology**  
[N # UNM DEP]
- c. **Oblique morphology**  
[N # UNM DEP OBL]

I argue that *-nuu**fA*, or more precisely *-fA* once *-nuu* is factored out, is also a portmanteau. Recall that as we saw in section 4, the *-fA* plural bleeds the appearance of independent accusative / genitive case morphology, but can occur in contexts where those cases are typically assigned, provided that their corresponding morphology is omitted (see 15-16 versus 18). As previewed above, I hypothesize that this property of *-fA* emerges from the fact that this morpheme is actually a portmanteau of plural number, and the features of accusative / genitive case. Following (25b) above, accusative / genitive case morphology corresponds to the feature set [UNM DEP]. Therefore *-fA* must express these case features, along with a plural number feature, as we see in (26a) below. This is in contrast to the default plural *-d* shown in (26b), which expresses only [#<sub>PL</sub>]:

(26) **Features expressed by plural morphology in Barguzin Buryat**

- a. **Suppletive plural *-fA***  
[N(nuu) #<sub>PL</sub> UNM DEP]
- b. **Default plural *-d***  
[N(nuu) #<sub>PL</sub> UNM DEP]

Notice that if *-fA* expresses the feature set [#<sub>PL</sub> UNM DEP], and accusative / genitive marking expresses the set [UNM DEP], then these two sorts of morphology are accurately predicted not to co-occur: while an NP containing only the case features [UNM] and [DEP] would typically express those features via accusative / genitive morphology, if *-fA* is inserted, then *-fA* by itself successfully expresses those case features (as well as a plural feature). Thus use of *-fA* in a plural accusative / genitive context successfully expresses all case features present, resulting in an acceptable form. This analysis assumes that morpho-syntactic features spelled-out by a given lexical insertion rule are unavailable for subsequent spell-out (Bobaljik 2000). Thus once *-fA* is inserted, typical accusative / genitive marking is not only unnecessary, but impossible, as (18) above showed.

The hypothesis that a feature can only be spelled-out once will be central to deriving the conflict between *-fA* and oblique morphology, as we'll see next. I will initially describe the conflict while remaining neutral about how exactly portmanteau morphemes are formed, though I will discuss some potential formal implementations in section 6 below.

## 5.1 The conflict that causes the paradigm gap

We have seen that the default plural *-d* can occur with all forms of case marking without conflict. This is what we expect, given my proposal that this morpheme expresses only the number node, and no case features. This lack of overlap is illustrated in accusative / genitive (27a) and oblique (27b) contexts below:



(27) **Plural *-d* causes no conflict with case marking**

a. **Plural *-d* + accusative/genitive marking**

[N(nuu) #<sub>PL</sub> UNM DEP]

b. **Plural *-d* + oblique marking**

[N(nuu) #<sub>PL</sub> UNM DEP OBL]

In contrast, we've seen that *-fA* conflicts with accusative / genitive morphology in that it causes them to be omitted, since it expresses the features that would be spelled-out by that morphology. I argue that the interaction of *-fA* with oblique structures is similar, though divergent in one important way: while *-fA* successfully expresses all the case features present in an accusative / genitive context, *-fA* expresses only part of the features present in an oblique context. I argue that this partial overlap is why the *-fA* plural causes a problem in oblique NPs.

An oblique plural NP will contain the nodes [N #<sub>PL</sub> UNM DEP OBL]. Insertion of the lexical item *-fA* into such a structure spells-out [#<sub>PL</sub> UNM DEP], as shown in (28a) below. However, insertion of oblique morphology would express the feature set [UNM DEP OBL], as shown once more in (28b). Notice that the latter two features in the set *-fA* realizes, [UNM] and [DEP], are also required in order to insert oblique morphology. Thus there is an overlap in the feature sets that *-fA* and oblique morphology respectively spell-out:

(28) **Plural *-fA* and oblique morphology both express [UNM, DEP]**

a. **Exponence of plural *-fA* in an oblique NP**

N(nuu) #<sub>PL</sub> UNM DEP OBL

b. **Exponence of oblique morphology**

N(nuu) # UNM DEP OBL

Consequently, I argue that strings combining *-fA* and oblique morphology are ungrammatical because they cannot be generated: since these two sorts of morphology must express some of the same features, the two cannot co-exist.

What has been stated so far explains why oblique morphology does not co-occur with *-fA*. However, as (19) above showed, an NP in an oblique case environment cannot contain *-fA* even if oblique morphology is simply un-expressed. That is, whether oblique marking is present or not, use of *-fA* is simply unacceptable in oblique structures. In this way, accusative / genitive and oblique cases importantly differ in their interaction with *-fA*: while *-fA* expresses accusative / genitive features successfully, it cannot by itself successfully express oblique cases.

I hypothesize that in the colloquial register where the presence of accusative / genitive features triggers use of the *-fA* plural, the morphological conflict just described renders oblique case structures unable to be appropriately mapped to a morpho-phonological form. Such structures are thus simply ineffable in this register, and therefore are unacceptable whether oblique morphology is present or absent. I describe how this ineffability hypothesis can be justified next.

## 5.2 The explanatory role of ineffability

Much recent work on the \*ABA generalization and related topics is cast in terms of either the framework of Distributed Morphology (Halle & Marantz 1993; Harley & Noyer 1999, a.o.), or Nanosyntax (Starke 2009; Caha 2009, a.o.), both of which will be discussed in greater detail below. Both of

these frameworks hypothesize that syntactic structure building precedes the morpho-phonological evaluation of that structure (though often with a degree of interleaving). However, in neither of these frameworks is morpho-phonology required to ensure that every single feature in a given syntactic tree is expressed in its corresponding surface form. This consequence is particularly salient in Distributed Morphology, for which the *Subset Principle* and the principle of *Underspecification* allow a given syntactic node to be expressed by a lexical entry that corresponds to only some of that node’s features. For morphological frameworks of this sort, it is thus a routine state of affairs for some syntactic features to remain morpho-phonologically unexpressed.

There is, however, a body of literature arguing that a failure to assign morpho-phonological form to a given element is at least sometimes a source of ungrammaticality. Evidence for this general idea comes from a wide variety of empirical domains, including paradigm gaps, ellipsis, ATB phenomena, and agreement (Miller et al. 1997; Schütze 2003; Citko 2005; van Craenenbroeck 2012; Bhatt & Walkow 2013; Arregi & Nevins 2014; Merchant 2015; Hein & Murphy 2019; Coon & Keine 2020). I argue that the absence of the Barguzin Buryat suppletive plural *-fA* in oblique cases constitutes another piece of evidence for this proposal. There is, however, more than one way to state the interaction that yields this instance of ungrammaticality by ineffability.

### 5.2.1 Ineffability by failure to express the oblique feature

As mentioned in section 2, in Distributed Morphology patterns of contextual allomorphy are commonly described by stating that the alternating syntactic node in question is realized either by a context-sensitive rule that assigns it a special form, or an *elsewhere* rule that applies by default, when the more specific rule is unable to apply. Syntactic nodes that are not subject to contextual allomorphy have only an elsewhere pronunciation rule. Building on a proposal from Harley (2014) about the possibility of a given syntactic node lacking an elsewhere rule, Arregi & Nevins (2014) argue that gaps in the paradigms of certain Spanish verbs can be explained if such verbs have only a context-specific realization rule, but no elsewhere one. This makes the verbs in question ineffable, and thus unusable, in some circumstances. Similar reasoning can be applied to the Buryat facts that this paper has described.

To see why, consider the realization rules in (28) above once more. Here we see that *-fA* is a portmanteau expressing the features [<sub>PL</sub> UNM DEP], whereas oblique morphology expresses the features [UNM DEP OBL]. Thus insertion of *-fA* into an NP containing the features [<sub>PL</sub> UNM DEP OBL] will use up all but the [OBL] feature. This lone feature is not in itself sufficient for the insertion of typical oblique morphology, if such morphology is specified as corresponding to the feature set [UNM DEP OBL]. In the absence of this possibility, we might expect the stranded [OBL] feature to be realized independently by an elsewhere rule. However, if we hypothesize that there is no elsewhere rule specified for a lone [OBL] feature, then we capture the fact that insertion of *-fA* into such a context results in irreconcilable ungrammaticality. We thus account for the lack of a plural oblique form in the colloquial grammar where *-fA* is endemic.

This reasoning also opens up a way of understanding the lack of an oblique plural using *-fA* for which this is not a paradigm gap per se. I have just offered an analysis that assumes that in a plural oblique structure [<sub>PL</sub> UNM DEP OBL], *-fA* is inserted before oblique morphology, which then fails to occur. However, we might also consider the possibility of inserting oblique morphology first.<sup>12</sup>

<sup>12</sup>Since [<sub>PL</sub>] is structurally lower than [OBL], we would expect the insertion of *-fA* to be triggered before insertion of

If this occurred, the features [UNM DEP OBL] would be used up, leaving behind only [#PL]. While a lone feature [#PL] is not sufficient to license the insertion of *-fA*, it is sufficient for the insertion of the basic non-portmanteau plural *-d*. If this occurs, the result will be a licit form combining the *-d* plural with typical oblique marking. As we've seen, such forms are attested, and are in fact the only way a plural oblique can be formed in this language. For this line of reasoning, the absence of *-fA* in plural oblique forms is not a paradigm gap, but rather this cell of the paradigm in the colloquial grammar is filled by the form N(-nuu)-**d**-OBL, just as in the neutral register. This interpretation of the facts involves a retreat to the default, which occurs because the expected portmanteau plural cannot be inserted when the derivation runs in this way.

### 5.2.2 Ineffability by indecisiveness

The above path of analysis depends on the assumption that inserting *-fA* into plural oblique structures is ungrammatical due to leaving behind a stranded [OBL] feature, which cannot be realized. The inability of this stranded feature to be expressed is arguably a stipulation. Furthermore, the hypothesis that failing to express this feature yields ungrammaticality is at odds with an important premise of the theories under discussion that I mentioned briefly above—that normally there is no issue with a given syntactic feature failing to be assigned a morpho-phonological form. Given these considerations, I will offer an additional way of justifying the morphological conflict that this paper relies on.

The *Subset Principle* of Distributed Morphology dictates that a given syntactic node can only be mapped to a lexical entry corresponding to a (proper) subset of the features that node bears. However, when there are multiple potentially licit lexical entries available, the grammar must choose the one matching the greatest number of features which that syntactic node has. This hypothesis raises a question about what happens when two potential lexical entries are equally specific. [Coon & Keine \(2020\)](#) have recently argued with a focus on agreement that in this situation, the grammar is unable to decide which lexical entry to select, crashing the derivation. Under such an analysis, ineffability does not yield ungrammaticality due to an assumed need to morpho-phonologically express the structure. Rather, the logic is that in such circumstances the given structure is fully expressible in principle, but that the availability of multiple equally valid lexical entries prevents the grammar from completing the morpho-phonological evaluation. This hypothesis of ineffability via indecisiveness can be directly applied to the Barguzin Buryat facts.

Recall one last time the feature sets which I have argued that the *-fA* plural and oblique morphology respectively express, repeated in (29) below. As described above, since both of these morphemes express the features [UNM DEP], these two morphemes cannot co-occur. Thus in order for the morpho-phonological evaluation to succeed, the grammar must select just one of them. Importantly, notice that both of these morphemes are equally specific, each expressing three of the features present in a plural oblique NP:

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oblique morphology, if lexical insertion applies “bottom-up”. However, insertion of these morphemes in the opposite order is also predicted to be available if as [Deal & Wolf \(2017\)](#) argue, lexical insertion within a given domain can in principle apply either “bottom-up” or “top-down”.

(29) **Plural  $-fA$  and oblique morphology both express [UNM, DEP]**

a. **Exponence of plural  $-fA$**

N(nuu) #<sub>PL</sub> UNM DEP OBL

b. **Exponence of oblique morphology**

N(nuu) # UNM DEP OBL

Building on the logic of [Coon & Keine \(2020\)](#), I propose that since both of these options are equally specific, the morpho-phonological evaluation crashes due to indecisiveness. This yields a paradigm gap for plural oblique forms in the colloquial grammar where  $-fA$  is endemic. Under this account, uttering a plural oblique structure requires a shift to the neutral register where  $-fA$  is not an option. Assuming that speakers have access to multiple co-existing grammars in the process of language use ([Yang 2000, 2004](#); [Deal 2016](#)), this reasoning captures the facts.

## 6 Two possible formalizations of the account

I have argued that the overlapping feature specifications of  $-fA$  and of oblique morphology prevent these elements, which are both fundamentally portmanteau morphemes, from co-occurring. However, I have so far remained neutral on how exactly portmanteau morphemes are formed. In this section I will provide two more formal implementations of the account described above, using two frameworks frequently assumed in research on the \*ABA generalization—Distributed Morphology and Nanosyntax, which both include methods for portmanteau formation.

### 6.1 A Distributed Morphology approach

In classic Distributed Morphology, the assignment of morpho-phonological form proceeds node-by-node, and thus in the basic case one morpheme cannot span multiple syntactic nodes. To describe contexts where one morpheme appears to correspond to the features of more than one syntactic node, much literature posits that the nodes in question are united into one via the post-syntactic operation *fusion* before lexical insertion applies. Above, I have posited that in languages with mono-morphemic case morphology, case morphemes are effectively portmanteau forms which express all nodes of the case hierarchy in the context in question. Under a Distributed Morphology approach, this can be accomplished by applying fusion to all case nodes present in a given context. For concreteness, assume the following fusion rule:

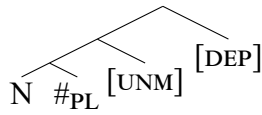
(30) **Case fusion rule**

Fuse two structurally adjacent nodes bearing case features into one new terminal.

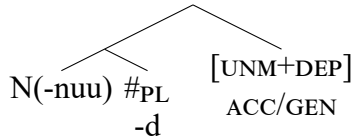
I have argued that accusative and genitive NPs contain the case nodes [UNM] and [DEP], as shown again in the plural NP in (31a) below. After this NP is built, case fusion will unite these case nodes into one as in (31b). After fusion, the morpho-phonological evaluation will assign accusative or genitive case morphology to this NP depending on syntactic context, as well as the plural morphology  $-d$  for a plural NP in the grammar of the neutral register, as (31b) shows:

(31) **Formation and realization of an accusative/genitive NP using plural *-d***

a. **Before case fusion**



b. **After case fusion and realization**



In the colloquial grammar where the *-fA* plural occurs, I posit that there is one more fusion rule:

(32) **Plural to case fusion rule (applicable only in the colloquial grammar)**

Fuse a plural # node with a structurally adjacent node bearing the feature [DEP].

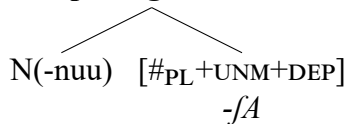
In the process of forming an accusative / genitive NP, after fusion of [UNM] and [DEP] occurs, the # node is indeed structurally local to a (compressed) case node containing [DEP], as we saw in (31b) above. Thus in the colloquial grammar, if # is plural the plural fusion rule will apply as in (33a). This fusion creates a node that will be assigned the lexical entry *-fA*, as in (33b). A colloquial plural accusative / genitive NP is thus formed.

(33) **Formation and realization of an accusative / genitive NP using plural *-fA***

a. **Plural to case fusion**



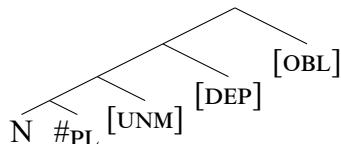
b. **Morphological realization**



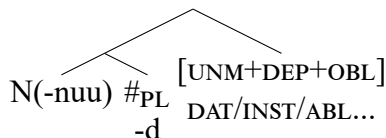
For a plural oblique NP in the neutral register, recursive applications of the case fusion rule will compress the tripartite case hierarchy into one node as in (34) below, though plural fusion will not apply. When morpho-phonological form is assigned to this structure, the result is an NP bearing the default plural marking *-d*, followed by typical oblique morphology, as shown in (34b):

(34) **Formation and realization of an oblique NP using plural *-d***

a. **Before case fusion**

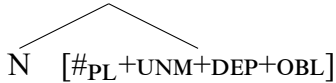


b. **After case fusion and realization**



In contrast, in the grammar of the colloquial register, the plural fusion rule will apply as well. This results in the structure in (35) below. The node created by these fusion processes is in principle a suitable insertion site for oblique morphology, which is specified as expressing [UNM DEP OBL], or for the *-fA* plural, which expresses [#<sub>PL</sub> UNM DEP]:

(35) **Colloquial plural fusion in addition to case fusion in an oblique NP**



As discussed above, since oblique morphology and the *-fA* plural partially overlap in the features they must express, the two cannot co-occur. The ways in which this conflict might play out have been described in detail in sections 5.1 and 5.2 above. Regardless of the route of explanation selected, the important point here is that the ABA distribution of the *-fA* plural does not falsify theories for which ABA patterns are ruled out in typical circumstances: rather, the distribution of *-fA* is restricted by an independent conflict that arises due to its portmanteau status.<sup>13</sup>

## 6.2 A Nanosyntax approach

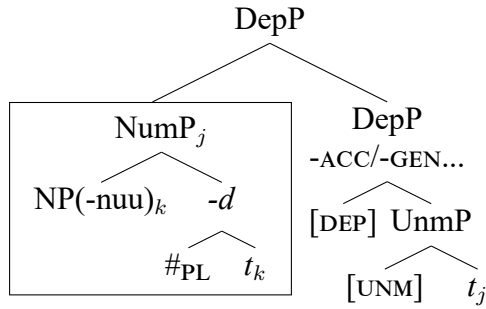
Unlike Distributed Morphology, the theory of Nanosyntax argues that lexical insertion can target non-terminal syntactic nodes. Since this possibility entails that morphemes can correspond to constituents containing multiple terminals, Nanosyntax permits portmanteau formation straightforwardly. This theory is also differentiated by several other assumptions. In brief, Nanosyntax posits that a given lexical entry must correspond to all, or a superset of, the features that the node it is assigned to contains (instead of matching a subset as in Distributed Morphology). The Nanosyntax version of the *Elsewhere Condition* requires the smallest possible lexical entry to be selected, however.

This framework also assumes that suffixes are movement-derived, meaning that a suffix of NP must be formed by NP moving and adjoining to a non-terminal node which contains a subset of the features which that suffix is specified for. Thus to derive a noun with a plural suffix and a case suffix, the following must occur: NP must move to the edge of a constituent containing the #<sub>PL</sub> node, creating the plural suffix. That resulting constituent (boxed below) must then move to a position where a sub-tree containing the relevant case nodes is its sister. That sub-tree is spelled-out as the case suffix. Below we see derivations for the plural *-d* combined with accusative / genitive and oblique morphology:

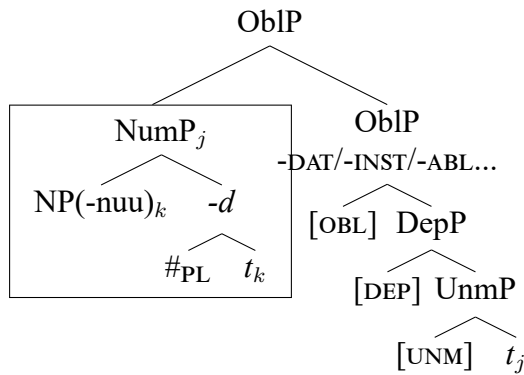
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<sup>13</sup>Portmanteau formation is possible in Distributed Morphology without fusion, if it is modified to allow multiple syntactic terminals to be expressed by a single lexical item. A mechanism like *spanning* under structural adjacency (Svenonius 2016, a.o.) can achieve this, since this variety of lexical insertion will allow a single morpheme in the surface string to correspond to multiple terminals, as needed. A spanning account of portmanteau formation is simpler than a fusion account, though I have focused on a fusion implementation here since this operation is familiar and frequently assumed in relevant literature. The vital conflict that I argue for in this paper arises in the same way under either approach, however.

(36) a. Plural *-d* with accusative / genitive suffix

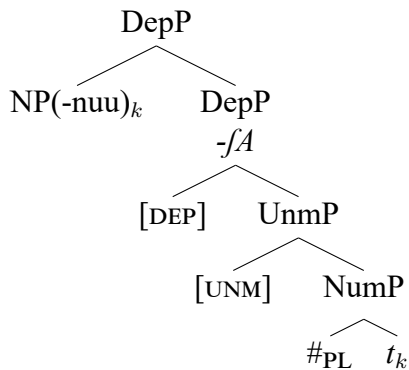


b. Plural *-d* with oblique suffix

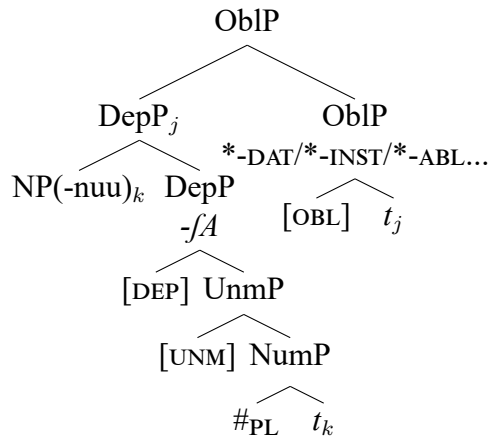


Formation of the *-fA* plural will interact differently with the derivation of case suffixes, however. Since *-fA* is a suffix that is specified for the feature set [ $\#_{\text{PL}}$  UNM DEP], its formation must involve movement of NP to a position whose sister is a node dominating those features, as in (37a) below. This example illustrates a licit derivation for an NP in an accusative / genitive syntactic context, where the plural feature and all case nodes present are expressed together by non-terminal insertion of *-fA*. Additionally, the hypothetical formation of an NP including *-fA* and an oblique suffix is shown in (37b). Unlike the derivation in (37a), the one in (37b) encounters a problem, however.

(37) a. Derivation of an NP with *-fA*



b. Hypothetical *-fA* with oblique suffix



In (37b), all nodes of the case hierarchy are present, since this is an oblique structure. To derive *-fA*, movement of NP to the edge of a constituent dominating [<sub>PL</sub> UNM DEP] must occur, as we saw in (37a). However, to derive an oblique suffix while preserving *-fA*, this constituent must then adjoin to a sub-tree which contains [OBL], as in (37b). If oblique morphology corresponds to the feature set [UNM DEP OBL] as argued earlier, then for a Nanosyntactic approach, such morphology should be able to be assigned to the sub-tree containing [OBL] in (37b). This is because for Nanosyntax, a given lexical entry can correspond to a superset of the features contained by the constituent it is assigned to, as mentioned above. However, this derivation is in fact banned by a condition independently proposed by Caha (2009):

(38) **The Anchor Condition** (Caha 2009, p. 89)

In a lexical entry, the feature which is lowest in the functional sequence must be matched against the syntactic structure.

The lowest feature in the case hierarchy is [UNM]. Both [UNM] and [DEP] were displaced by the formation of *-fA* in (37b). Since [OBL] thus stands alone in (37b), given the Anchor Condition it cannot be expressed alone as oblique morphology. We thus derive, in another way, the fact that *-fA* cannot co-occur with oblique morphology.<sup>14</sup> As before, this conflict is a straightforward result of the fact that *-fA* and oblique morphology overlap in the features they express.

## 7 Concluding remarks

In this paper, I have described and analyzed colloquial plural suppletion in Barguzin Buryat. This phenomenon is significant because it has an ABA distribution, which is unexpected for recent works on the structure of case and the nature of suppletion. I have argued that the exceptional distribution of this process stems from the fact that the suppletive plural morpheme is a portmanteau of a plural feature and certain case features, the latter of which oblique morphology must also express. This results in an independent morphological conflict, which yields a paradigm gap. Therefore this

<sup>14</sup>For other Nanosyntactic discussion of morpheme overlap, see Caha (2019) and Vanden Wyngaerd et al. (2020). The *backtracking* operation (Starke 2018) these works develop would allow the derivation of the illicit (37b) to be reversed and re-arranged until spell-out succeeds. This would have to eventually yield (36b) above, which is the only correct (Nanosyntactic) structure for a plural oblique NP in Barguzin Buryat.



plural suppletion pattern importantly does not falsify theories that ban ABA patterns under normal circumstances, but rather reveals a principled exception to them. These findings also support the case containment thesis, since under this perspective the conflict between the portmanteau plural and oblique marking is automatically predicted.

Importantly, there is a growing body of evidence that ABA suppletion patterns exist, in particular at the sub-word level. See for instance the discussion of Basque adjectival suppletion in Bobaljik (2012), Bulgarian adjectival suppletion in (Caha 2017), as well as the analysis of suppletion in pronominal paradigms in Middleton (2020). Significantly, both Caha and Middleton argue that the presence of portmanteau forms plays a role in creating the instances of ABA they respectively examine, precisely as I have argued for Barguzin Buryat. Thus it is clear that the Buryat pattern I examine here is not an isolated idiosyncrasy, but rather a manifestation of a more general phenomenon of growing relevance to current morpho-syntactic research: that while ABA patterns may well be banned under normal circumstances, they can occur at the sub-word level when part of the word is expressed by a portmanteau form.

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