

Case-driven plural suppletion in Barguzin Buryat: *ABA versus case containment*

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Abstract: This paper examines a pattern from Barguzin Buryat (Mongolic) resembling ABA suppletion. Bobaljik (2012), Moskal (2018), Smith et al. (2018) a.o. argue that for syntactic domains involving a markedness hierarchy, any suppletion rule triggered by a lower element on the hierarchy will be triggered by elements higher on that hierarchy. The label “ABA” describes a situation, which such works argue to be essentially unattested, where an instance of suppletion expected to occur in the more marked context fails. Various works hypothesize a markedness hierarchy for case features. Smith et al argue that a version of this hierarchy predicts the cross-linguistic distribution of case-driven suppletion, which they claim lacks ABA patterns. I show that in Barguzin Buryat, there is a plural suppletion process possible in accusative (and genitive) forms, but impossible in oblique forms. For the theories under discussion, this is an ABA pattern. I argue that this ABA pattern can be attributed to an independent conflict between this suppletive plural and oblique marking, such that the universality of the case hierarchy can be maintained.

1 Introduction

In this paper, I use original fieldwork data to investigate a pattern of case-driven plural suppletion in Barguzin Buryat (Mongolic). This pattern is of interest since at first glance, it violates the expectations of some recent work on the structural decomposition of case, and its interaction with the mechanisms of morphology. The puzzle will be, in short, that this plural suppletion fails in a circumstance where such works predict that it should not.

I will use the term *suppletion* to refer to scenarios where one syntactic element is associated with (at least) two contextually-determined forms, which are not related to each other by any regular phonological process. Since phonology cannot be implicated in such alternations, the natural conclusion is that they must be governed by morpho-syntactic factors. A relatively recent strand of work argues that the cross-linguistically constrained distribution of suppletion arises from the way that the morphological component interacts with the hierarchies encoded in various domains of syntax. The general prediction made by such works that is relevant to the present paper is stated in (1), paraphrasing from Smith et al (2018):

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I use the following abbreviations: ABL = ablative, ABS = absolutive, ACC = accusative, COM = comitative, DAT = dative, DEP = dependent, ERG = ergative, GEN = genitive, INST = instrumental, NOM = nominative, OBL = oblique, PL = plural, SG = singular, UNM = unmarked.

(1) **Suppletion rules in structural hierarchies**

If an element undergoes suppletion in the context of X, it will also undergo suppletion in more complex contexts that entail the presence of X.

Bobaljik (2012) argues that this prediction is verified by an examination of comparative and superlative adjectives. The same reasoning is argued for in Moskal (2018) for (in/ex)clusivity, and Smith et al (2018) for case and number in pronouns.

These works all argue that for the domain they are concerned with, there is a syntactic/featural hierarchy, which governs suppletion in the way described in (1). These works predict a set of impossible suppletion patterns, among them the “ABA” pattern, which characterizes suppletion failing in a context that should contain the required features. Since the works just mentioned intentionally build theories that cannot derive ABA patterns, any such pattern is puzzle. In this paper, I will discuss an apparent ABA pattern from Barguzin Buryat, and show how it can be resolved.

1.1 Preview of puzzle and solution

The predictions at issue only arise in domains where a structured hierarchy of features is thought to be present. Most importantly for the present paper, various works have argued for a hierarchy of case features (Blake 1994, Caha 2009, Zompi 2017, Smith et al 2018). In all the hierarchies posited in these works, features related to accusative (and genitive too, for many) are a subset of the features involved in oblique cases. For instance, Caha posits the following highly decomposed hierarchy:

- (2) **Case containment hierarchy** (Adapted from Caha 2009, p. 24, ex. 38)¹
[[[[[**[NOM]** ACC] GEN] DAT] INSTR] COM]

When combined with the expectation in (1), such a hierarchy predicts that we should never see a suppletion process available in accusative (and likely also genitive) environments, but not in oblique ones (like dative, instrumental, etc.). This is simply because oblique contexts should contain accusative features. Smith et al’s (2018) cross-linguistic examination of suppletion in pronouns argues that this expectation is born out, though their analysis is contingent on a relatively compressed feature hierarchy, as we’ll see later on. With this general perspective in mind, let’s turn now to the Buryat facts.

The relevant pattern in Buryat involves case-sensitive suppletion of the plural morpheme. First of all, there is a plural suffix *-(n)uud* that can appear with any case marking. For this reason, I assume that it is the default, “elsewhere” exponent of plurality. In (3) below we see this morpheme in an accusative context:

- (3) **Default plural *-(n)uud***
bi miisgəi-**nuud**-ijə xaranab
1SG cat-PL-ACC see
‘I see cats’

¹The generalizations analyzed by Caha and the framework he uses are different than what will generally be assumed for the present paper, but regardless, the hierarchy he posits is usefully representative.

There is also a plural variant *-(n)uufA*, which speakers characterize as dialectal or colloquial.² Since there is no phonological process in the language that could derive *-(n)uufA* from *-(n)uud*, nor a semantic difference between these forms that I have been able to detect, I regard *-(n)uufA* as a contextually triggered suppletive variant of the plural. This form can only occur in genitive and accusative contexts, as (4) below previews in an accusative one:

(4) **Suppletive plural *-(n)uufA* in an accusative context**

bi miisgəi-**nuufə** xaranab
 1SG cat-PL.ACC see
 ‘I see cats’

As we’ll see, this suppletive plural cannot occur in nominative contexts, which is not a puzzle for the theories under discussion in this paper. What is a puzzle, however, is the fact that it cannot occur with oblique cases, as (5) below exemplifies:³

(5) **No suppletive plural in obliques**

Bi miisgəi-**nuud**/***nuufə**-tə m¹axa ʊgəəb
 1SG cat-PL-DAT meat gave
 ‘I gave meat to the cats’

The hypothesis in (1) combined with a hierarchy like that in (2) leads us to expect that sentences like (5) should be grammatical. The fact that they are not constitutes the challenge that this paper is concerned with.

There are a few plausible directions for an analysis of this fact. Maybe the prediction in (1) is too strong. It could also be that the case hierarchy in (2) is incorrect, or at least not universal. Yet another possibility is that (1) and (2) are more or less correct, but that something about Barguzin Buryat is preventing their interaction to proceed as it would under normal circumstances. I argue that when we examine the suppletive plural thoroughly, we find evidence for an analysis of the final sort. This analytical path solves the ABA puzzle using independent facts about Barguzin Buryat, and thus preserves (1) and (2). Consequently, this account maintains the cross-linguistic results that Smith et al (2018) and related works achieve by using such concepts.

To preview the solution, notice that in (3), accusative morphology stacks straightforwardly on top of the default plural *-(n)uud*. Compare this with (4), which uses the

²Note that the two plural forms are not completely unrelated: they share a subpart *-(n)uu*, the /n/ arising when not affixed to a consonant. In the appendix I argue that *-(n)uu* may in fact be a separate morpheme, based on the fact that some nouns permit a “short” plural with just *-d*, or just *-fA* in genitive and accusative contexts. Since I don’t have enough data about the short plural for a thorough analysis, in this paper I will speak in terms of *-(n)uud*/*-(n)uufA*.

³As the wording here implies, use of the suppletive plural rather than the default is optional. I will offer no account of this. The fact that it is not obligatory in genitive/accusative contexts does not prevent us from an analysis of the places where it is banned from appearing. It might also suffice to state that this suppletive plural is not optional, but a feature of the colloquial grammar. While this suppletion may be obligatory in the context of the grammar that it is a part of, use of the grammar that characterizes the colloquial register is not.

suppletive plural $-(n)uufA$, but lacks the typical accusative marking we saw in (3). As we'll see, combining typical accusative or genitive morphology with $-(n)uufA$ is ungrammatical. Based on this fact, I will argue that $-(n)uufA$ is essentially a portmanteau of number features and some features of the case hierarchy. I will posit that some of the features that $-(n)uufA$ expresses are also required for use oblique morphology. Consequently, use of $-(n)uufA$ or oblique morphology bleeds insertion of the other, preventing the two from ever occurring in the same nominal form. This follows from Bobaljik's (2000) claim that spelling-out a feature removes it from the representation, making it unavailable for expression by further morphemes. Under this hypothesis, $-(n)uufA$ would be able occur in oblique contexts if it expressed only number features, because then it would cause no conflict with oblique marking. It is only due to this independent conflict that plural suppletion in oblique forms fails.

1.2 Roadmap of the paper

In section 2, I provide some background on Barguzin Buryat, including the relevant phonological facts and case morphemes. In section 3 I describe the distribution of the suppletive plural in detail, and show precisely in what sense it represents a problematic ABA pattern. Here I also discuss reasons for considering genitive in a natural class with accusative, as a *dependent case* in the sense of Marantz (1991, a.o.). Section 4 shows how the properties of the suppletive plural allow us to posit an independent conflict between it and oblique marking, which explains its exceptional ABA distribution.

2 Background on Barguzin Buryat

In this section, I will overview the necessary morphological and phonological facts about Barguzin Buryat, before turning in the next section to the details of plural morphology and the puzzle they present.

2.1 Morpho-syntax

Buryat is a Mongolic language, and its morphosyntax is characteristic of the 'Altaic' group: It is strictly head final, has *pro*-drop, productive scrambling, and highly suffixing agglutinative morphology. Since this paper is concerned primarily with word-internal phenomena, not much needs to be said about this. I refer the interested reader to Tatevosov et al. (To appear) for more information.

2.2 Phonology

Familiarity with a few phonological facts is necessary for an examination of the case system. The facts reported here are taken from Staroverov & Zelensky (To appear), but were corroborated by my own findings. I adopt the notation used in that work, which

is essentially an IPA-based transliteration of the original Buryat orthography.⁴ The only important mismatch between orthography and pronunciation deals with diphthongs. In careful speech /ei/, /ɔi/, /oi/ and /ai/ are pronounced as expected, but in fast speech, the first three are merged to [e:], and the latter to [ɛ:]. The language has complex vowel harmony, but for the study of case, fortunately it is only necessary to be aware of the harmonizing vowel /A/, pronounced as [ɑ], [ə], or [ɔ] depending on the preceding vowel.

It is important to be aware of the language's two strategies for avoiding hiatus (V-V sequences), since these processes impact the forms generated by agglutinating nominal morphology. First, when a heavy (bi-moraic⁵) vocalic segment (long vowel or diphthong) is adjacent to a short vowel, the short vowel deletes:

- (6) $V\mu \rightarrow \emptyset / _V\mu\mu, V\mu\mu_$ (Staroverov & Zelensky, ex. 20)
- a. **leaf-INST**
nabʃA + AAr → nabʃAAr → nabʃaar
 - b. **wolf-ABL**
ʃono + aan → ʃonɔaan → ʃonaan
 - c. **ask-IMP**
gui + A → guiA → gui

Second, when two heavy vowels are adjacent, neither is deleted. Rather, the segment /g/ (phonetically often [ɣ/ʁ]) appears between them:⁶

- (7) $\emptyset \rightarrow g / V\mu\mu_V\mu\mu$ (Staroverov & Zelensky, ex. 21)
- a. **gun-INST**
buu + AAr → buugaar
 - b. **chicken-ABL**
taxʃaa + AAn → taxʃaagaan
 - c. **wait-PRT1**
xulʃə: + A: → xulʃə:gə:

No more phonological information is necessary for examining case morphology.

2.3 Case marking

Since this paper is focused on the interaction between plural marking and case marking, we must be aware of the morphemes used in both of these processes. We already saw in the introduction that there is an elsewhere plural *-(n)uud*, and a variant *-(n)uufA* that I claimed is a suppletive variant. We will see in detail distribution of these plural markers in the next section, but before that, it is necessary to overview case marking, which plural marking interacts with.

⁴Though there is a standardized version of Buryat, there is no standard orthography for the dialect studied here. All examples were gathered both in recorded spoken elicitations and in Buryat orthography with the help of the consultants.

⁵I standardly use the notation $\langle \mu \rangle$ to refer to *morae*, which are units of phonological weight.

⁶This is a typologically unusual epenthesis. See Staroverov (2016) for more information.

Nominative case is null, as is cross-linguistically frequent.⁷ Generally, I will not gloss nominative case, since it will hardly need to be mentioned.

(8) **Null nominative**

- | | |
|--|---|
| <p>a. badma-∅ namaijə xaraa
Badma-NOM 1SG.ACC saw
'Badma saw me'</p> | <p>b. [manai(n) miisgəi]-∅ n'əətəi
1PL.GEN cat-NOM funny
'Our cat is funny'</p> |
|--|---|

Oblique cases suffix to the noun without any complication, though the hiatus avoidance strategies described in the previous subsection apply when needed.

(9) **Some oblique forms**

- | | |
|---|--|
| <p>a. bi miisgəi-nuud-tə m'axa ugəəb
1SG cat-PL-DAT meat gave
'I gave meat to the cats'</p> | |
| <p>b. bi noxoi-χoo ainab
1SG dog-ABL be.afraid.of
'I'm afraid of the dog'</p> | |
| <p>c. bi badm-aar omogorxonob
1PL badma-INST be.proud.of
'I'm proud of Badma'</p> | <p>[Final short vowel of <i>Badma</i> deleted]</p> |
| <p>d. bi miisgəi-gəər omogorxonob
1PL cat-INST be.proud.of
'I'm proud of the cat'</p> | <p>[/g/ insertion between heavy vowels]</p> |

Accusative and genitive marking, which are particularly important for this paper, are considerably more complicated. The form of these cases is to some extent phonologically determined. When affixing to a nominal form ending in a long vowel, we see that accusative involve suffixation of /-(j)ə/, and genitive involves suffixation of /-n/:

(10) **Straightforward ACC/GEN formation**

- | | |
|---|--|
| <p>a. əzii-n miisgəi bəduun
mother-GEN cat fat
'Mother's cat is fat'</p> | <p>d. dugar noxoi-jə xarana
Dugar dog-ACC see
'Dugar sees a dog'</p> |
| <p>b. bi əzii-jə xaranaab
1SG mother-ACC saw
'I saw mother'</p> | <p>e. bi tax'aa-jə xaraab
1SG chicken-ACC see
'I see a chicken'</p> |
| <p>c. noxoi-n xool untəi
dog-GEN food expensive
'Dog food is expensive'</p> | <p>f. bi zodoo-jə xaraab
1SG fir.tree-ACC see
'I see a fir tree'</p> |

⁷There are however a few nouns that end in *-n* in the nominative, though this *-n* comes and goes in ways that are quite complex. Poppe (1960) reports that such nouns are known to Buryat grammarians, who call these "the nouns with the unstable /n/". More data is needed on these.

When the nominal form being affixed to does not end in a long vowel, accusative marking has the form /-Aiə/ or /-iiə/, while genitive marking has the form /-Ain/ or /-iin/.⁸

(11) ACC/GEN with additional vocalic content

- | | |
|---|--|
| <p>a. bog-*(oi)-n ʊngə boro
trash-??-GEN color grey
'The trash's color is grey'</p> <p>b. bi bog-*(ii)-jə xaranaab
1SG trash-??-ACC saw
'I see a piece of garbage'</p> <p>c. dugar-*(ai/ii)-n miisgəi bʊdʊʊn
Dugar-??-GEN cat fat
'Dugar's cat is fat'</p> | <p>d. bi dugar-*(ai/ii)-jə xaranaab
1SG Dugar-??-ACC saw
'I saw Dugar'</p> <p>e. ail-*(ai/ii)-n miisgəi bʊdʊʊn
family-??-GEN cat fat
'The family's cat is fat'</p> <p>f. bi ail-*(ai/ii)-jə xaranaab
1SG family-??-ACC saw
'I saw the family'</p> |
|---|--|

It is tempting to analyze these circumstances as involving suffixation of an accusative /-(j)ə/ or genitive /-n/, followed by insertion of an epenthetic element /Aj/ or /ii/. It would in fact be descriptively adequate to state that the elements /-(j)ə/ and /-n/ must surface adjacent to a heavy vowel, and that when they affix to a nominal form that does not already end in a heavy vowel, an epenthetic element /Aj/ or /ii/ is inserted to satisfy this requirement. However, it is not entirely clear that /Aj/ and /ii/ are epenthetic, rather than also being in some sense real markers of accusative and genitive. This is because /Aj/, and to a lesser extent /ii/, can stand alone in forming fully-fledged genitive and accusative forms. This is most productive with /Aj/, which frequently is the only visible affix in a genitive or accusative context:

(12) ACC/GEN marked with stand-alone /Aj/⁹

- | | |
|--|---|
| <p>a. galuu-nuud-əi dali-nuud jəxə
goose-PL-GEN wing-PL big
'Geese's wings are big'</p> <p>b. dugar-ai miisgəi bʊdʊʊn
Dugar-GEN cat big
'Dugar's cat is big'</p> | <p>c. bi galuu-nuud-əi xaranab
1SG goose-PL-ACC see
'I see geese'</p> <p>d. bi dugar-ai xaranab
1SG Dugar-ACC see
'I see Dugar'</p> |
|--|---|

I have not found any semantic different between these various strategies of marking genitive and accusative that might help usefully differentiate them. There are multiple potential analyses of these phenomena consistent with the facts, but adjudicating between them

⁸Poppe (1960)'s survey of standard Buryat reports the existence of genitive/possessive forms *-ai* and *-iin*, and a direct object marker *-(ii)ji*. Future work may find benefit in comparing Barguzin Buryat to other Buryat varieties, since I am unable to offer a concise analysis of the morphology of accusative/genitive marking here.

⁹It might be that these sentences involve an opaque derivation where a truncation process deletes the accusative or genitive suffix that previously motivated epenthesis of /Aj/ or /ii/. Since I cannot decisively prove this, I will set the issue aside for this paper.

is a complex task that does not have any consequences for the analysis of plural suppletion. Therefore just be aware that genitive marking surfaces as an element with a shape that can be summarized as /-(Aj/ii)(n)/, and for accusative marking, /-(Aj/ii)((j)ə)/.

3 The plural facts and why they are a puzzle

As previewed, the typical plural morpheme in this language is *-(n)uud*. This morpheme is straightforwardly followed by case affixes, and any required epenthetic morphemes. It appears in all cases, as the following examples show:

(13) **Default plural in NOM**

- | | |
|--|--|
| <p>a. miisgəi-nuud mairana
cats meow</p> <p>b. tax¹aa-nuud dongodono
roosters cluck</p> | <p>c. ʃuluu-nuud unaa
stones fell</p> <p>d. basaga-nuud jərəə
girls came</p> |
|--|--|

(14) **Default plural in ACC**

- a. dugar gər-**nuud-əijə** xarana
Dugar house-PL-ACC sees
'Dugar sees a house'
- b. bi buuza-**nuud-iijə** ɛd¹əəb
1SG buuzy-PL-ACC eat
'I eat buuzy'
- c. bi baabgai-**nuud-iijə** xaranam
1SG bear-PL-ACC see
'I see bears'

(15) **Default plural in GEN**

- a. ənə bagʃa-**nuud-ain** xəʃəəl-nuud χonin
this teacher-PL-GEN lesson-PL interesting
'This teacher's lessons are interesting.'
- b. galuu-**nuud-ain/iin** dali-nuud jəxə
goose-PL-GEN wing-PL big
'Geese's wings are big.'
- c. səseg-**nuud-iin** dəʃbə-nuud χaixan
flower-PL-GEN petal-PL nice
'Flower's petals are nice.'

(16) **Default plural in OBL**

- a. bi miisgəi-**nuud-tə** m¹axa ʊgəəb
1SG.NOM cat-PL-DAT meat gave
'I gave meat to the cats'

- b. badma xadxuur-**nuud-aar** ədʲəlnə
Badma fork-PL-INST ate
'Badma ate with forks'
- c. bi nəxər-nuud-**təi-gəə** magazin oʃoob
1SG friend-PL-COM-REFL.POSS store went
'I went to the store with my friends'
- d. bi bagʃa-**nuud-χaa** ainab
1SG teacher-PL-ABL
'I'm afraid of the teacher'
- e. bi bagʃa-**nuud-aan** ainab
1SG teacher-PL-ABL be.afraid.of
'I'm afraid of teachers'

As previewed, it is also possible for the plural to have the form *-(n)uufA* in genitive and accusative contexts. This is only a possibility, and not a requirement. Speakers consider the suppletive plural a trait of colloquial/dialectical grammar. Based on this, we might say that suppletive plural is not optional, but a trait that emerges in a particular register of the language (see footnote 3).

(17) **Suppletive plural *-(n)uufA* in GEN**

- a. miisgəi-**nuufə** χuul-nuud uta
cat-PL.GEN tail-PL long
'Cats tails are long'
- b. zoodoo-**nuufə** χalaa(-nuud) xərin
fir.tree-PL.GEN branch-PL grey
'Branches of fir trees are grey'
- c. ʃono-**nuufə** ʃudən xursa
wolf-PL.GEN tooth sharp
'Wolf's teeth are sharp'
- d. əgəʃə-**nuufə** nəxəd χain
sister-PL.GEN friend nice
'Sister's friends are nice'

(18) **Suppletive plural *-(n)uufA* in ACC**

- a. bi buuza-**nuufə** ədʲəəb
1SG buuzy-PL.ACC ate
'I ate buuzi'
- b. badma əgəʃə-**nuufə** zolgoo
Badma sister-PL.ACC met
'Badma met sisters'

- c. bi dugar-ai ʃono-**nuuʃa** xaranam
1SG dugar-EM(-GEN) wolf-PL.ACC see
'I see Dugar's wolves'
- d. dugar gər-**nuuʃə** xarana
Dugar house-PL.ACC sees
'Dugar sees houses'
- e. bi ʒodoo-**nuuʃa** xaranam
1SG fir.tree-PL.ACC see
'I see fir trees'

This plural variant is never possible in nominative contexts:

(19) **No -(n)uuʃA in nominative**¹⁰

- a. *buuza-**nuuʃa** amtatai
Buuza-PL delicious
'Buuzy are delicious'
- b. *noxoi-**nuuʃa** jədəə
dog-PL came
'Dogs came'
- c. *əgəʃə-**nuuʃə** jədəə
sister-PL came
'Sisters came'
- d. xubuu-**nuuʃə** noxoi xarana
boy-PL(ACC/*NOM) dog see
'A dog sees boys / *Boys see a dog'
- e. noxoi-**nuuʃa** koʃka xarana
dog-PL(ACC/*NOM) cat see
'A cat sees dogs / *Dogs see a cat'
- f. əgəʃə-**nuuʃə** tax¹aa ədinə
sister-PL(GEN/*NOM) chicken eat
'(3SG) eats the sisters' chicken [GEN reading] / *Sisters eat chicken'

Finally and most importantly, this plural form is also impossible in oblique contexts:

(20) **No -(n)uuʃA with obliques**

- a. *bi miisgəi-**nuuʃə**-tə m¹axa ʊgəəb
1SG.NOM cat-PL-DAT meat gave
'I gave meat to the cats'

¹⁰In the (d-f) examples, there is a reading, but the noun marked with -(n)uuʃA must be interpreted either as a possessor or an object, rather than as a subject. The fact that the nouns being interpreted as the subject in (d-e) are not marked with accusative case shouldn't have anything to do with the fact that they aren't interpreted as objects, since objects can be unmarked can in fact be unmarked in this language. Since unmarked objects do not have any morphology, I do not say anything about them in this paper.

- b. *bi nuxer-**nuufə**-təi-gəə magazin oʃoob
 1SG friend-PL-COM-REFL.POSS store went
 ‘I went to the store with my friends’
- c. *bi bagja-**nuufa**-χaa ainab
 1SG teacher-PL-ABL
 ‘I’m afraid of the teacher’
- d. *bi bagja-**nuuf**-aan / **nuufa**-gaan ainab
 1SG teacher-PL-ABL / PL-ABL be.afraid.of
 ‘I’m afraid of teachers’
- e. *badma xadxuur-**nuuf**-aar / -**nuufa**-gaar ədʲəəlɲə
 Badma fork-PL-INST / -PL-INST ate
 ‘Badma ate with forks’

There is no phonological problem with these examples, since oblique morphology is generally able to affix to nouns of any shape, without discrimination. Therefore I argue this ungrammaticality must have a morpho-syntactic explanation.

Comparing (14/15) with (17/18) reveals an important difference between the default and suppletive plurals. In the former pair we see that accusative and genitive marking straightforwardly stack on top of the default plural, while in the latter pair, we see that such case marking disappears when the suppletive plural is used. As (21) below shows, stacking accusative or genitive morphology on the suppletive plural is not only unnecessary, but impossible:

(21) **No -(n)uufA with overt ACC/GEN marking**

- a. *bi miisgəi-**nuuf**-**ijə**/**əijə** xaranab
 1SG cat-PL-ACC see
 ‘I see cats’
- b. *miisgəi-**nuuf**-**əin**/**iin** χuul-nuud uta
 cat-PL-GEN tail-PL long
 ‘Cats tails are long’
- c. *ʃono-**nuuf**-**ain** ʃudən xursa
 wolf-PL-GEN tooth sharp
 ‘Wolves teeth are sharp’
- d. *dugar gər-**nuuf**-**ijə** xarana
 dugar house-PL-ACC
 ‘Dugar saw houses’
- e. *əgəʃə-**nuuf**-**iin** zərɣən χain
 sister-PL-GEN heart good
 ‘Sister’s heart is kind’
- f. *bi ʃono-**nuuf**-**ai**/**əi**/**oi**/**ijə** xaranab
 1SG wolf-PL-ACC see
 ‘I see wolves’

- g. *bi miisgəi-**nuuf-iijə/əijə** xaranab
 1SG cat-PL-ACC see
 ‘I see cats’
- h. noxoi-**nuuf-ii-n** ədʲəən amtagui
 dog-PL-EM-GEN food tasty
 ‘(3SG’s) dog’s food is tasty / *dog’s food is tasty’¹¹

As mentioned in 2.3, when affixing to a nominal form that does not end in a heavy vowel, accusative and genitive marking must take on the forms /-Aj/ii(n)/ and /-Aj/ii((j)ə)/ respectively. The heavy vowel /Ai/ or /ii/ in the case marking will trigger deletion of the final short vowel of *-(n)uufA*, due to a hiatus avoidance process described in section 2.2—short vowels adjacent to long vowels delete. All the sentences in (21) apply this deletion as needed, and therefore should be phonologically well-formed. Nevertheless they are not grammatical, suggesting that a morpho-syntactic issue prevents *-(n)uufA* from combining with oblique marking.

In the next subsection, I’ll describe the puzzle presented by this gap in distribution of the suppletive plural, and its consequences for theories of case features and suppletion. The fact that *-(n)uufA* “consumes” normal ACC/GEN marking will be central to explaining, among other things, why *-(n)uufA* is incompatible with oblique marking.

3.1 The theory and the puzzle

As previewed in the introduction, the fact that this plural suppletion fails in oblique contexts presents a challenge for certain theories about the internal structure of case marking, and its relation to morphological theory. To make clear what the puzzle is, here I’ll go over more formally how the theories involved function. In order to do this, it will be useful to summarize some results from Bobaljik’s (2012) study of adjectival suppletion. I’ll follow Bobaljik in assuming a realizational theory along the lines of Distributed Morphology (DM, Halle & Marantz (1993); Harley & Noyer (1999)) in which phonological form is assigned to syntactic structures post-syntactically at spellout.

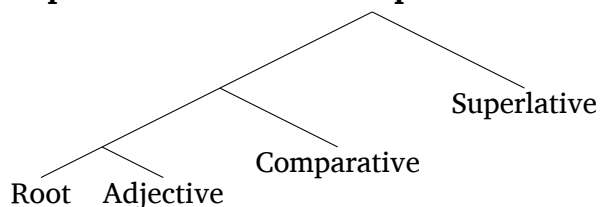
Bobaljik observes that cross-linguistically, there is an essentially universal tendency for the suppletion that occurs in the comparative form of an adjective to also occur in the superlative form. For instance, the adjective *good* in English has the suppletion pattern in (21a), not (21b) or (21c), which are essentially unattested cross-linguistically as well:

- (22) a. **Attested suppletion of *good***
good / bett-er / be-st (ABB distribution)
- b. **Unattested alternative 1**
good / good-er / be-st (AAB distribution)
- c. **Unattested alternative 2**
good / bett-er / good-est (ABA distribution)

¹¹In this example, the attempted sequence PL-GEN is being interpreted instead as suppletive plural followed by the 3rd person possessive marker /-iin/. The suppletive plural can in general be followed by possessive markers, as we’ll see later on.

The terminology “ABB, ABA” and so on describes whether or not suppletion occurs in a given domain, ordered in terms of increasing complexity. So in an ABB pattern, the least marked category in this context triggers no suppletion (=A), but the next most marked category does (=B) and so does the next most marked category after that. Bobaljik shows that ABB adjectival patterns like (22a) where the comparative and superlative supplete, but the basic form of the adjective does not, are widely attested. In contrast, there are no AAB patterns where only the superlative supletes, or ABA patterns where only the comparative supletes.¹² Bobaljik argues that the ABB pattern is so ubiquitous because superlative structures properly contain comparative features:

(23) **Superlatives contain comparatives**



To see why this containment structure predicts ABB suppletion, rather than ABA or AAB, consider the following set of hypothetical realization rules:

(24) **Insertion rules for a hypothetical adjective**

- a. Adj → A
- b. Adj → B / [_] Comparative

The rule in (24a) is the default pronunciation rule for this hypothetical adjective, and (24b) is a context-sensitive allomorphy rule that causes it to supplete in comparative contexts. Since superlatives contain comparative features as in (23), the conditions for the rule in (24b) to apply will be met in superlative contexts. In general, we expect contextual morphological rules to interact in the same way with any feature hierarchy:

(25) **Suppletion rules in structural hierarchies** [=(1)]

If an element undergoes suppletion in the context of X, it will also undergo suppletion in more complex contexts that entail the presence of X.

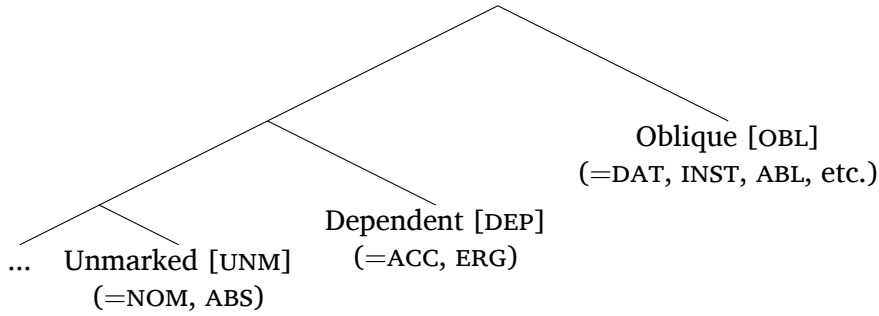
Earlier in this paper, I mentioned the hypothesis that there is also a containment hierarchy for case features (Caha (2009); Smith et al. (2018), a.o.). A study of syncretism leads Caha (2009) to posit a very articulated hierarchy:

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

Zompi (2017) and Smith et al. (2018) argue that the case hierarchy can be simplified into one that corresponds to the case categories proposed by Marantz (1991), arranged as in (27). Under this categorization, obliques contain features related to *dependent cases* (accusative and ergative), which in turn contain features related to *unmarked cases* (nominative and absolutive).

¹²There are also ABC patterns, where the basic (“positive”) form of the adjective, the comparative, and the superlative are all different. Dealing with ABC patterns won’t be relevant for this work.

(27) **Simplified case hierarchy in Marantzian terms**¹³



Given the prediction in (25), we expect a suppletion rule that is available in dependent cases to be available in oblique cases too. This is because use of oblique case entails the presence of features relating to dependent case (and unmarked case). Smith et al. (2018) show that such predictions are well born out in the domain of pronominal suppletion.

Recall that the suppletive plural in Barguzin Buryat is available for ACC and GEN (which I argued to also be a dependent case) but not with obliques:

(28) **Suppletion with ACC/GEN but not OBL: An ABA pattern**

a. **Accusative**

bi miisgəi-**nuufə** xaranab
1SG cat-PL.ACC see

‘I see cats’

b. **Genitive**

miisgəi-**nuufə** χuul-nuud uta
cat-PL.GEN tail-PL long

‘Cat’s tails are long’

c. **Oblique**

Bi miisgəi-**nuud**/***nuufə**-tə m¹axa ugəəb
1SG cat-PL-DAT meat gave

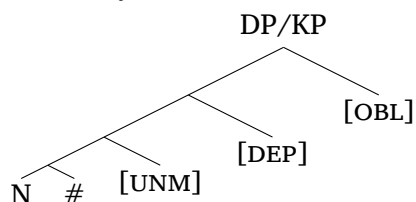
‘I gave meat to the cats’

¹³While there are feasible semantic reasons to decompose superlatives as in (23), it is less obvious what underlies the reasons for the articulated case structure shown here. Marantz’s original (1991) theory proposed that case realization stems from how morphology interprets structural relations in syntax—in a NOM-ACC language, a DP is realized as accusative at PF when locally c-commanded by another DP, and so on. Importantly, this sort of theory does not assign case by a calculus of syntactic features. If Preminger (2014) is correct, the case categories proposed by Marantz must actually be assigned in syntax, because their presence can feed or bleed various operations that are decisively syntactic (movement, agreement). Preminger acknowledges the awkwardness here, but bites the bullet in simply accepting that a configurational evaluation system must be able to value case features. This is a rarely discussed consideration that is relevant for any theory that posits that these case features have syntactic reality, as is inherent in a theory which arranges them in a syntactic hierarchy.

If the hierarchical decomposition of case features in (27) is right, this suppletion instantiates an ABA pattern at the very least because it is possible in accusative forms, but not oblique ones. Shortly I will argue that genitive can be plausibly regarded as being in a natural class with accusative, but the point can be illustrated more straightforwardly by thinking in terms of the accusative for now.

To clarify, let's consider the case hierarchy in the context of the rest of the nominal domain. I'll assume with Caha (2009 a.o.) that case hierarchy is a part of the extended projection of the noun. This is represented in (29) below, which incorporates a head representing number features, which as we see in the Buryat examples, is expressed in a position between the nominal stem and case morphology:

(29) **Case layer over # node**



With this structure in mind, consider the sorts of realization rules we must posit to characterize the facts about the expression of plurality in Barguzin Buryat. The rule in (30a) below encodes the fact that the plural node is realized as *-(n)uufA* in accusative contexts, which in the terms of Marantz's categories, is a dependent case. The rule in (30b) states that the plural node is realized as *-(n)uud* outside of such circumstances, as we've seen.

(30) **Realization rules for plural number node in Barguzin Buryat**

- a. $\#[\text{PL}] \rightarrow -(n)uufA / [_ \text{ACC} (=DEP)]$
- b. $\#[\text{PL}] \rightarrow -(n)uud / \text{elsewhere}$

Given the rule in (30b), we predict *-(n)uufA* to surface in oblique contexts—if the representation of case features in (27/29) is right, oblique cases contain features related to dependent case, and so the rule in (30a) should apply. We have seen that in reality, it cannot, yielding what can be classified as an ABA pattern. Since the theories under discussion are intentionally constructed to not derive ABA patterns, this fact is a puzzle.

A possible explanation is that the decomposition of case in Barguzin Buryat is simply different. For instance, perhaps in this language oblique cases simply don't contain dependent case features. But if Smith et al. (2018) are right that this hierarchy accurately governs suppletion patterns in so many other languages, it would be necessary to explain why it is different in Barguzin Buryat. An alternative path forward would be to posit that some additional factor is obscuring the expected distribution of suppletion. In the remainder of the paper, I will pursue a solution of this sort.

3.1.1 Alternative hypothesis: *-(n)uufA* must be aligned to the right edge

Before moving on, here I'll briefly consider an alternative perspective on the above facts. It would fit the Buryat data shown so far to stipulate that something forces the morpheme

-(n)uufA to appear at the right edge of the word. This might be motivated by the sort of alignment constraints that are sometimes posited in phonological research (McCarthy & Prince (1993) and many others). Under such an account, some constraint requiring *-(n)uufA* to be aligned to the right edge of the word would motivate deletion of any affixes to its right. This would explain why normal accusative/genitive marking does not surface with *-(n)uufA*, and it would also explain why oblique marking with *-(n)uufA* fails: realization of an oblique prevents *-(n)uufA* from occupying the right edge of the word.

I am aware of one other sort of morphology that can appear outside of number marking, aside from case marking. This is possessive agreement morphology, which tracks the person features of a noun’s possessor. It turns out that *-(n)uufA* can be followed by possessive markers (with typical hiatus avoidance processes applying), suggesting that there is no general constraint forcing *-(n)uufA* to be at the right edge.¹⁴

(31) **Suppletive plural can be followed by possessive markers**

- a. bi buuza-nuuf-aa ədʲəəb
1SG buuza-PL.ACC-REFL ate
I ate my buuzi
- b. ʃi buuza-nuuf-iimni ədʲəəʃ
2SG buuza-PL.ACC-1P ate
You ate my buuzi
- c. bi dugar-ai ʃono-nuuf-iinj xaranam
1SG dugar-EM.(GEN) wolf-PL.ACC-3POSS see
I see dugar’s wolves
- d. əgəʃə-nuuf-iinj zərxən χain
sister -PL.GEN-3POSS good
(3SG’s) sister’s heart is kind
- e. əgəʃə-nuuf-iinj xaranam
sister-PL.GEN-3POSS see
I see (3SG)’s sisters

This fact is not in conflict with the account this paper will ultimately argue for, which won’t rule out nominal affixes outside of the case layer with the suppletive plural.

3.2 Uniting accusative and genitive

In the above exposition I focused on the relationship between accusative and oblique case, with a promissory note that genitive would be incorporated shortly. In this subsection I’ll suggest that we can place accusative and genitive in a natural class as dependent cases, in the terms of Marantz (1991). A number of works argue that GEN is “unmarked” case

¹⁴It would of course be possible to stipulate that there is a constraint requiring *-(n)uufA* to be at the right edge, but that it is outranked by a second constraint requiring possessive agreement markers to be at the right edge as well. It is not clear to me that this would be anything more than a formalized recapitulation of the facts, however.

within NP/DP, meaning that genitive is basically nominative, but in a nominal environment it happens to be realized differently (Marantz (1991); Levin & Preminger (2015); Baker (2015)). While this might be true of some languages, in Barguzin Buryat, genitive in fact systematically patterns like accusative, a dependent case.

Throughout this paper we have seen that in this language, accusative and genitive uniquely pattern together in triggering plural suppletion. We also saw in section 2.3 above that accusative and genitive share some other morpho(phono)logical properties. They both might be subject to something like a phonological requirement demanding that they surface adjacent to a heavy vocalic segment, and both accusative and genitive can apparently be expressed by a single morpheme /Aj/, which might be analyzed as a case of syncretism permitted by there being some feature in common between accusative and genitive that a morpheme can potentially target for insertion.

To see why accusative and genitive might have some commonality in their featural makeup, it will be helpful to describe explicitly the method by which Marantz's (1991) case categories are assigned. Many works inspired by Marantz adopt a version of the following case algorithm, often implementing it phase-by-phase (Baker & Vinokurova (2010); Baker (2015); Levin & Preminger (2015); Levin (2017)).

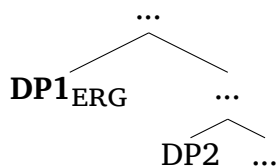
(32) A Marantzian case assignment algorithm

- #1 Assign (idiosyncratic) lexical/inherent/oblique cases
- #2 Of the remaining DPs, if one asymmetrically c-commands the other:
 - Either assign dependent case to the higher DP (= ergative),
 - Or assign dependent case to the lower DP (= accusative).
- #3 Remaining DPs are assigned unmarked case (= nominative / absolutive)

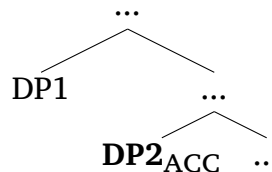
It is most important to consider what underlies step #2. At this step, any thus far caseless DPs in a c-command relation within the relevant domain are differentiated by giving one special marking, the dependent case. A number of works take seriously this intuition that dependent case marking serves a dissimilatory function (Haspelmath (2008); Comrie (1978); Baker (2015); Yuan (2018)), a claim that sits well with arguments for dissimilation elsewhere in morphology (Richards (2010); Nevins (2012)). Whether the nominal that receives special marking is the higher or lower one is a matter of language-particular choice. Dependent case assignment to the higher nominal results in what is named *ergative*, while assignment to the lower one results in what we call *accusative*:

(33) Two options for dependent case assignment

a. **Upward**

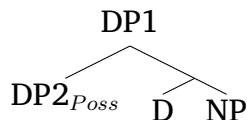


b. **Downward**



Consider what such concepts lead us to expect about the interaction of DPs in the nominal domain. Baker (2015) notes that genitive case is syncretic with ergative in many languages. He points out that we should not be surprised to see this, since a DP-in-DP configuration will often involve two nominal phrases in a c-command relation. For instance, a possessor DP c-commands the NP of the possessum:

(34) **Possessor asymmetrically c-commands possessum NP**



Since one nominal phrase c-commands another within this DP, the case algorithm in (32) applied to this domain might plausibly assign ERG to the higher nominal constituent, the possessor.¹⁵ This perspective does not straightforwardly extend to accusative languages, where dependent case is assigned downwards, not upwards. However, it remains possible is that dependent case can be assigned upward in the nominal domain, even in languages where we see accusative case in the verbal domain.

Nevertheless, even in non-ergative languages, there is morphological evidence that genitives pattern like a “marked” case.¹⁶ Caha (2009) suggests that possessives are often built from genitive forms, and van Baal & Don (2018) provide evidence from syncretism that possessives in some sense contain dependent case features. For example in Dutch, a NOM/ACC language, possessive pronouns are syncretic with ACC and DAT (argued by Folli & Harley (2007), for instance, to also be a dependent case).

(35) **Syncretism in Dutch pronouns**

(van Baal & Don (2018))

	1SG	2SG	1PL	2PL
NOM	ik	jij	wij	jullie
ACC	mij	jou	ons	jullie
POSS	mijn	jouw	ons	jullie
DAT	mij	jou	ons	jullie

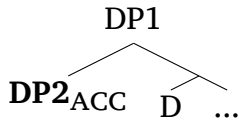
Caha (2009) uses cross-linguistic syncretism patterns to build an implicational hierarchy of case features, and his results conclude that genitive cases do in some sense contain accusative features. I take findings in this vein as suggesting that in at least some languages, GEN is featurally related to dependent cases.

On a final note, if dependent case assignment is sensitive to dominance as well as c-command, we might expect a DP dominated by a second DP to receive ACC case:

¹⁵If in a given language possessors are specifiers of DP, the fact that the possessor c-commands D might also lead the possessor to be “ergative”-marked, if c-commanding D and c-commanding DP can both trigger dependent case. Since D and DP presumably both bear nominal features, this state of affairs is conceivable, particularly under a Bare Phrase Structure approach to labeling (Chomsky (1995)).

¹⁶Baker (2015) argues that genitives should not be regarded as accusative-like, though he mentions two languages that appear to have accusative possessors: Martuthunira (Pama-Nyungan) and Karachai-Balkar (Turkic). I cannot comment on why ACC case for possessors is evidently rarer than ERG. Nevertheless, the fact that syncretism between ACC and GEN is cross-linguistically common seems telling. For now, my only goal is to suggest that genitives might plausibly have a dependent case value, at least as one of their sub-parts. Whether genitives/possessors are in some way underlyingly ACC or ERG is tangential.

(36) **Dominated DP assigned ACC**



DP-in-DP configurations could involve dependent case due to the logic of dissimilation mentioned above—perhaps a domain that contains two (as of yet case-less) DPs is regarded the same as a domain containing a constituent of the same category as itself. The concerns of Richards (2010)’s Distinctness theory apply here as well, predicting that something must be done to distinguish the D of DP1 from that of DP2.

Whichever route is taken, I argue that there are plausible reasons why a DP-in-DP configuration could require the assignment of dependent case. As previewed, I suggest that the commonalities between accusative and genitive in Barguzin Buryat suggest that genitive should be considered in a natural class with accusative. I posit that both are, or contain, features related to the dependent case category.¹⁷

4 The suppletive plural conflicts with oblique marking

With the discussion of genitive concluded, I now return to the main point of the paper. We’ve seen that accusative and genitive contexts pattern together in allowing plural suppletion. If accusative and genitive involve dependent case features, which are also a part of oblique cases, the fact that plural suppletion fails in oblique contexts is a puzzle for the theories under examination—this is an ABA pattern that they cannot generate.

My solution to this puzzle relies the fact that the suppletive plural must “consume” typical ACC/GEN marking, unlike the default plural, as shown once more below:

(37) **Suppletive plural can’t coexist with ACC/GEN marking** [from (21)]

- a. *miisgəi-**nʉʉʃ-əin/iin** χʉʉʉl-nʉʉʉd yta
 cat-PL-GEN tail-PL long
 ‘Cats’ tails are long’
- b. *bi miisgəi-**nʉʉʃ-iijə/əijə** xaranab
 1SG cat-PL-ACC see
 ‘I see cats’

I argue that this fact about the suppletive plural leads to an explanation for its ABA distribution, that allows the hierarchy of case features discussed above to be maintained.

I hypothesize that the suppletive plural is incompatible with typical ACC/GEN morphology because dependent case features are “consumed” by it. This would make the

¹⁷To be clear, I do not maintain that genitive must be related to dependent cases in all languages. Some languages discussed by Baker (2015), such as Japanese, really look like they might have a default genitive. Further, Harðarson (2016) argues that there must be some cross-linguistic variance in the position of genitive in the hierarchy. In particular, he places genitive outside of dative case for West Nordic languages, in contrast to Caha’s claim that genitive is contained by obliques. The reality may well be that genitive has been encoded differently in the grammars of the languages of the world.

suppletive plural effectively a portmanteau morpheme that expresses both the plural number feature, and the features of dependent case, unlike the default plural, which expresses only the number feature.¹⁸ Example (38) below illustrates this using a flattened representation of the nominal projection for convenience, though this is a realistic representation, if works like Embick (2010) are right that linearization precedes lexical insertion:

- (38) a. **Default plural spells-out only [#]**
 [N # UNM DEP]
 b. **Suppletive plural spells out [#], [UNM], and [DEP]**
 [N # UNM DEP]

There are a few ways that such a portmanteau morpheme might be produced. This could be the result of an operation that fuses the plural and dependent features into a single node (Halle & Marantz (1993)). Or, this form might be a “large” vocabulary item that can target multiple terminals in the functional sequence (under structural adjacency (Svenonius (1995)) or linear adjacency (Ostrove (2018))).¹⁹ I argue that an understanding of the suppletive plural along these lines can explain its conflict with oblique marking, while maintaining the case containment hierarchy. Importantly, this explanation relies on adopting from Bobaljik (2000) the claim that features expressed by insertion of a morpheme are “used up” and unavailable to subsequent lexical insertion processes.

In some languages, we see can each component of the case hierarchy spelled-out distinctly, as Smith et al. (2018) point out for Khanty and Kalderaš Romani. In (39) below we see this for Khanty, where nominative forms are a sub-part of accusative forms, and accusative forms are transparently a sub-part of dative forms:

- (39) **Transparent case containment in Kanty** (Nikolaeva (1999))

	NOM	ACC	DAT
1SG	ma	ma:-ne:m	ma:-ne:m-na
3SG	luw	luw-e:l	luw-e:l-na
1PL	muŋ	muŋ-e:w	muŋ-e:w-na

In languages where cases are not internally complex on the surface, I assume that case morphology is essentially portmanteau-like, spelling-out all features of the case layer present in a given context. In a system like this, which I adopt for Barguzin Buryat, cases are expressed by a single morpheme, despite their complex internal feature structure. In such a language, NOM is the spellout of the feature [Unmarked]:

- (40) **Exponence of NOM**
 [N # UNM]

¹⁸That this plural suppletion “consumes” typical ACC/GEN marking, is particularly natural given the claim of De Clercq & Wyngaerd (2017) that suppletive forms are featurally larger than non-suppletive forms. They come to this conclusion based on the observation that suppletive forms often seem to involve less morphemes in the surface string, at least in certain comparative contexts.

¹⁹Yet another alternative would be to posit that such morphemes are the exponents of insertion at non-terminal positions (as in Nanosyntax, Starke (2009); Caha (2009); Radkevich (2010), a.o.), which in this situation, would be insertion a position dominating the number node and (part of) the case hierarchy.

I take accusative and genitive marking to be the realization of dependent case in Barguzin Buryat, with ACC used within the clause and GEN used in nominal domains. These morphemes spell-out the combined features [Unmarked] and [Dependent]:

- (41) **Exponence of ACC/GEN**
 [N # UNM DEP]

And finally, oblique cases spell-out all of [Unmarked], [Dependent], and [Oblique]:

- (42) **Exponence of OBL cases**
 [N # UNM DEP OBL]

Now let's see how this understanding predicts the desired conflict between the suppletive plural and the exponence of obliques. Since the default plural only spells-out the number node, co-occurring exponence of dependent or oblique case causes no conflict, as we've seen in reality:

- (43) **Default plural causes no conflict with obliques**
- a. **Exponence of default PL + ACC/GEN**
 [N # UNM DEP]
 - b. **Exponence of default PL + OBL**
 [N # UNM DEP OBL]

We've also seen that the suppletive plural is incompatible with overt ACC/GEN marking, as expected if this plural is a portmanteau of the number node and dependent case features (which contain unmarked features). The portmanteau-like property of this suppletion prevents typical accusative/genitive marking, since the features that such case marking expresses are consumed by this suppletive form—since *-(n)uufA* expresses those case features, they are not available for subsequent lexical insertion operations.

- (44) **Suppletive plural spells out [#], [UNM], and [DEP]**
 [N # UNM DEP]

If oblique morphology spells-out all of the case features that are its sub-parts, including all of unmarked, dependent, and oblique features, it cannot coexist with the suppletive plural. This is because, if morpho-syntactic features are “used up” by spellout, use of either the suppletive plural or oblique morphology removes features required by the other.

To see why, compare (45a) and (45b) below. These respectively show the nodes expressed by *-(n)uufA* and oblique marking. Notice that use of both of these morphemes in one nominal form would overlap the features [UNM] and [DEP]:

- (45) **Suppletive plural and oblique morphology both express [UNM, DEP]**
- a. **Exponence of suppletive plural**
 [N # UNM DEP OBL]
 - b. **Exponence of oblique morphology**
 [N # UNM DEP OBL]

Since the features [UNM] and [DEP] must be available for insertion of either oblique case marking or the suppletive plural, insertion of either ones of these morphemes spells-out features that the other also requires. So while the features necessary for insertion of the suppletive plural are present in oblique forms, as the case hierarchy discussed above predicts, this conflict prevents these two morphemes from coexisting in the same nominal form. Whether the structure is spelled-out bottom-up (as often argued), top-down, or all at once, this conflict will always arise if the suppletive plural is used with oblique cases.

In short, the ABA pattern of plural suppletion in Barguzin Buryat need not be taken as evidence that the case hierarchy argued for by Smith et al (a.o.) is wrong. These facts do not force the conclusion that oblique cases do not contain dependent case features. Rather, an independent fact about this suppletive plural prevents it from appearing in oblique contexts. This ABA pattern is then, fundamentally, an accident.

4.1 Beyond Buryat

It should now be asked whether the mechanisms I've used to make sense of plural suppletion in Barguzin Buryat predict ABA patterns elsewhere. As far as I can see, the answer is inevitably yes: If we can find other morphological processes that happen to express a sub-part of the case hierarchy, there is the potential for a conflict with oblique forms.

The only other clear ABA pattern I am currently aware of comes from Khakas (Turkic), whose proximal demonstrative fails to supplete in some oblique forms. Notice that in (46) below, the nominative form of the demonstrative (*pu*) is also used in the dative, and one form of the allative. In accusative and genitive this form suppletes to /*min*/, as it also does in the other oblique cases. The fact that this suppletion fails in the dative and allative, then, presents an ABA scenario.²⁰

(46) **Khakas proximal demonstrative** (Anderson (1998) pg. 20)

NOM	ACC	GEN	DAT	ALL1	ALL2	INST	LOC	ABL
pu	mini	miniŋ	puya	puzar	mindar	mininaŋ	minda	minnaŋ

Accounting for this pattern may require a highly articulated Caha-style case hierarchy, since it is probably necessary to make some structural distinction between the different oblique cases here. It is not currently obvious to me whether this pattern can be accommodated in a way analogous to the ABA suppletion in Barguzin Buryat. If it can, the fact that ABA patterns are so rare implies that whatever mechanisms are at work in Barguzin Buryat and Khakas must be, for some independent reason, highly marked. I don't currently have an answer as to why this might be, and one likely cannot be seriously proposed until more exceptional ABA patterns come to light for analysis.

These ABA patterns could, of course, be purely accidental. The lack of suppletion in the dative and allative in (46) could actually be some sort of idiosyncratic selection that happens to generate a form the same as what we see in nominative. And in Barguzin Buryat, it could be the case that obliques select an allomorph of the plural which, coincidentally, looks like the default plural. Appealing to such coincidences is obviously

²⁰Thanks to Stanislaw Zompi for pointing this out to me.

undesirable, but accommodating these surprising ABA patterns in a principled way is challenging, and may in some circumstances force an appeal to coincidence. Coincidences are not impossible, of course, but they are undesirable because they are scientific dead ends.

5 Conclusion

I have argued that the ABA pattern instantiated by plural suppletion in Barguzin Buryat is in essence, an accident. The fact that the suppletive plural fails to occur in oblique contexts does not force the conclusion that the case containment hierarchy is wrong for this language—a desirable result, given that this hierarchy has great coverage of case-driven suppletion cross-linguistically, as Smith et al. (2018) argue. If the suppletive plural expressed only plural number features, it should be compatible with oblique marking. But the fact that the suppletive plural expresses some features of the case layer explains both why it appears to “consume” typical accusative and genitive marking, and its incompatibility with oblique marking.

5.1 Appendix: More on plural morphology

I have regarded the default plural as $-(n)uud$ and the suppletive plural as $-(n)uuʃA$. But as mentioned in footnote 2, things are slightly more complicated than this. There is evidence that the $-d$ segment of $-(n)uud$ may be a separate morpheme, since some nouns allow a short plural that is simply $-d$:

(47) Typical plural versus short plural

- | | |
|--|--|
| a. miisgəi- nuud mairana
cats meow | b. miisgə- d mairana
cats meow |
|--|--|

For such nouns, this short plural can supplete to $-ʃA$:

(48) Suppletion of the short plural

- | | |
|---|---|
| a. badma noxo- d-ii xaraa
Badma dog-PL-ACC saw
‘Badma saw a dog’ | b. badma noxo- ʃi xaraa
badma dog-PL.ACC saw
‘Badma saw a dog’ |
|---|---|

I speculate that there is a separate morpheme $-(n)uu$ which may accompany the true plural $-d$. If $-d$ suppletes to $-ʃA$, the result is the $-(n)uuʃA$ form. While I do not have any evidence upon which to make a decisive claim about the identity of $-(n)uu$, perhaps this can be identified as the allomorph of some head in the nominal spine, such as a categorizing n^0 , or some part of an articulated structure involved in the syntax of plurality.

Just as previous facts would lead us to expect, suppletive $-d$ to $-ʃA$ appears to be impossible in nominative contexts:

- (49) a. taana-**d** jərəət
2P-PL came
b. *taana-**ʃa** jərəət
2P-PL came
c. badma taana-**ʃa** duudaa
Badma 2P-PL.ACC invited
'Badma invited you'

- (50) a. nuxə-**d** jəree
friend-PL came
b. *nuxə-**ʃə** jəree
friend-PL came
c. bi nuxə-**ʃə** xaranab
1SG friend-PL.ACC see
'I see friends'

- (51) a. maana-**d** jərəəbdi
1P-PL came
b. *maana-**ʃa** jərəəbdi
1P-PL
c. (*pro*) maana-**ʃa** duudaa
1P-PL.ACC called
'Somebody called us'

I have not had the chance to test whether this suppletion of the short plural is possible in oblique contexts, but the account offered in this paper predicts that it should not be.

There are also nouns that allow not only the short plural, but also a marking *-duud* that resembles something like a double plural:

(52) **Normal plural vs. short plural vs. double plural**

- | | |
|---|--|
| a. mori-nuud/-d/-duud χaixan
Horses are pretty | b. modo-nuud/-d/-duud χaixan
Trees are pretty |
|---|--|

More data is needed before much can be said about these different plural forms.

References

- Anderson, Gregory. 1998. *Xakas*. LINCOM EUROPA: Germany.
- Baker, Mark. 2015. *Case: Its principles and parameters*. Cambridge University Press.
- Baker, Mark & Nadya Vinokurova. 2010. Two modalities of case assignment: case in sakha. *Natural Language and Linguistic Theory* 28. 593–642.
- Bobaljik, Jonathan. 2000. The ins and outs of contextual allomorphy. In Grohmann K.K. & Struijke C. (eds.), *University of maryland working papers in linguistics: Proceedings of the maryland mayfest on morphology*, vol. 10, 35–71. College Park: UMDWPL.
- Bobaljik, Jonathan. 2012. *Universals in Comparative Morphology: Suppletion, superlatives, and the structure of words*. MIT Press.
- Caha, Pavel. 2009. *The nanosyntax of case*. PhD Thesis, University of Tromsø.

- Chomsky, Noam. 1995. Bare phrase structure. In Gert Webelhuth (ed.), *Government and binding theory and the minimalist program (generative syntax 1)*, 383–439. Cambridge, MA: Blackwell.
- Comrie, Bernard. 1978. Ergativity. In Winfred Lehmann (ed.), *Syntactic typology: Studies in the phenomenology of language*, 329–394. Austin: University of Texas Press.
- De Clercq, Karen & Guido Wyngaerd. 2017. *ABA Revisited evidence from Czech and Latin degree morphology. *Glossa* 1. 1–32.
- Embick, David. 2010. *Localism versus Globalism in Morphology and Phonology*. MIT Press, Cambridge.
- Folli, Raffaella & Heidi Harley. 2007. Scausation, obligation, and argument structure: On the nature of little v. *Linguistic Inquiry* 38. 197–238.
- Halle, Morris & Alec Marantz. 1993. Distributed morphology and the pieces of inflection. In Ken Hale & Samuel Jay Keyser (eds.), *The View From Building 20*, 1–52. MIT Press.
- Harðarson, Gísli Rúnar. 2016. A case for a Weak Case Contiguity hypothesis—a reply to Caha. *Natural Language & Linguistic Theory* 34. 1329–1343. doi:10.1007/s11049-016-9328-x.
- Harley, Heidi & Rolf Noyer. 1999. Distributed morphology. *Glott International* 4. 3–9.
- Haspelmath, Martin. 2008. *Object marking, definiteness and animacy*. In Syntactic Universals and Usage Frequency, Leipzig Spring School on Linguistic Diversity.
- Levin, Theodore. 2017. Successive-cyclic case assignment: Korean nominative-nominative case-stacking. *Natural Language and Linguistic Theory* 35. 447–498.
- Levin, Theodore & Omer Preminger. 2015. Case in Sakha: are two modalities really necessary? *Natural Language and Linguistic Theory* 33. 231–250.
- Marantz, Alec. 1991. Case and Licensing. In Westphal G., Ao B. & Chae H.R. (eds.), *Proceedings of ESCOL 91*, 234–53. Ohio State University: Cornell Linguistics Club.
- McCarthy, John J & Alan Prince. 1993. Generalized alignment. In Geert Booij & Jaap van Marle (eds.), *Yearbook of morphology*, 79–153. Dordrecht: Kluwer.
- Moskal, Beata. 2018. Excluding exclusively the exclusive: Suppletion patterns in clusivity. *Glossa* 3. 1–34.
- Nevins, Andrew. 2012. Haplological dissimilation at distinct stages of exponence. In *The morphology and phonology of exponence*, 84–116. Oxford: Oxford University Press.
- Nikolaeva, Irina. 1999. *Ostyak*. München: Lincom Europa.
- Ostrove, Jason. 2018. Stretching, spanning, and linear adjacency in Vocabulary Insertion. *Natural Language and Linguistic Theory* 36. 1263–1289.

- Poppe, Nicholas. 1960. Buriat Grammar. In *Indiana university publications uralic and altaic series, vol 2*, Indiana University, Bloomington.
- Preminger, Omer. 2014. *Agreement and its failures*. Cambridge: MIT Press.
- Radkevich, Nina. 2010. *On location: The structure of case and adpositions*. PhD Thesis, University of Connecticut.
- Richards, Norvin. 2010. *Uttering trees*. Cambridge, MA: MIT Press.
- Smith, Peter, Beata Moskal, Ting Xu, Jungmin Kang & Johathan Bobaljik. 2018. Case and Number Suppletion in Pronouns. *Natural Language and Linguistic Theory* .
- Starke, Michal. 2009. Nanosyntax: A short primer to a new approach to language. In Peter Svenonius, Gillian Ramchand, Michal Starke & Knut Tarald Taraldsen (eds.), *Nordlyd 36.1, special issue on nanosyntax.*, 1–6. CASTL, Tromsø.
- Staroverov, Peter. 2016. Productivity of the buriat dorsal-zero alternation. In *Proceedings of nels*, vol. 46, .
- Staroverov, Petr & Dmitri Zelensky. To appear. Phonology. In Tatevosov S.G., Bondarenko T.I., Privoznov D.K. & Podobryaev A.V. (eds.), *Elements of the Buryat language in typological perspective: The Barguzin dialect. [Elementy byryatskogo jazyka v tipologičeskom osveščanii: Barguzinskij dialekt.]*, .
- Svenonius, Peter. 1995. Spans and Words. In Daniel Siddiqi & Heidi Harley (eds.), *Morphological metatheory*, 201–222. John Benjamins, Amsterdam.
- Tatevosov, S.G., Bondarenko T.I., Privoznov D.K. & Podobryaev A.V. (Eds.). To appear. *Elements of the Buryat language in typological perspective: The Barguzin dialect. [Elementy byryatskogo jazyka v tipologičeskom osveščanii: Barguzinskij dialekt.]*.
- van Baal, Yvonne & Jan Don. 2018. Universals in possessive morphology. *Glossa: A journal of general linguistics*. 3. 1–19.
- Yuan, Michelle. 2018. *Dependent case and clitic dissimilation in yimas*. Manuscript, MIT.
- Zompi, Stanislao. 2017. *Case decomposition meets dependent-case theories*. MA Thesis, University of Pisa.