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

Colin Davis / colind@mit.edu / MIT

Abstract: This paper examines the significance plural suppletion in Barguzin Buryat (Mongolic, Russia). This suppletion pattern is of interest because it displays what recent work on allomorphy and the internal structure of case morphology would classify as an "ABA" distribution, which is predicted to be unattested. In particular, this suppletion pattern qualifies as ABA because it occurs in NPs with accusative (or genitive) case, but not in those with an oblique case. I argue that this unexpected pattern occurs because the suppletive plural morpheme in this language is a portmanteau that expresses some of the features upon which oblique morphology also depends, with the result that these two sorts of morphology cannot co-occur. Hence this suppletive plural superficially has an ABA distribution due to what is, in essence, a paradigm gap stemming from an independent conflict within this language. Consequently, this pattern does not falsify the morphological theories that ban ABA patterns under normal circumstances, but rather reveals a principled (though exceptional) way of deriving ABA within the context of such frameworks.

1 Introduction

This paper analyzes a pattern of case-driven plural suppletion in Barguzin Buryat (Mongolic, Russia), and its consequences for a recent strand of research on the internal structure of case morphemes, and the space of possible suppletion patterns. As we'll see, this Buryat pattern appears to violate the expectations of such work. The goal of this paper is to argue that this pattern in fact proves not to be exceptional, once its intricacies are examined in detail.

I will 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 morphology interacts with the functional hierarchies encoded in syntax. One such generalization is stated in (1) below. Bobaljik (2012) on adjectives, Moskal (2018) on in-/exclusivity, and Smith et al. (2018) 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 a generalization of this shape holds for the contexts they respectively examine:

(1) **Suppletion rules in containment 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.

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

By constructing 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 an instance of suppletion that fails to occur in an environment that should contain the needed contextual trigger. Works in this vein argue that ABA patterns are indeed basically absent from human language. As we'll see, however, Barguzin Buryat presents a potential counterexample to this *ABA generalization.

The generalization in (1) above is only expected to hold for domains involving set of categories that have a containment relationship. Several works have argued that case involves a hierarchy of the relevant type (Blake, 1994; Caha, 2009, 2013; Zompì, 2017; Smith et al., 2018, 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 the present paper will speak in terms of, (2) makes an assertion common to other proposed case hierarchies, and important for this paper: 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 for suppletion in oblique cases**
Any suppletion process in a given language triggered by accusative or genitive case should also be triggered by oblique cases.

This prediction is a straightforward consequence of the proposal that oblique cases contain accusative / genitive features. Smith et al. (2018) argue, based on a cross-linguistic study of suppletion in pronouns, that a prediction of this nature is correct. However, as we'll see next, Barguzin Buryat has an instance of suppletion that does not behave as expected in this regard.

1.1 The puzzle

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

(4) **Default plural *-(n)uud***
bi miisgəi-**nuud**-iijə xaranab
1SG cat-PL1-ACC see
'I see cats'

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

(5) ***-(n)uuʃA* plural in accusative and genitive contexts**

a. bi miisgəi-**nʉʉʃɵ** xaranab
1SG cat-PL2.ACC see
'I see cats'

b. miisgəi-**nʉʉʃɵ** χʉʉl-nʉʉd uta
cat-PL2.GEN tail-PL long
'The cat's tails are long'

As we'll see, *-(n)uuʃA* cannot appear in nominative contexts, which is not surprising for the theories under discussion in this paper. More importantly, however, *-(n)uuʃA* also cannot occur with oblique cases, as (6) below demonstrates in a dative context:

(6) **No *-(n)uuʃA* plural in oblique contexts**

bi miisgəi-**nuud/*nuuʃɵ**-tə mʲaxa ʉgɵɵb
1SG cat-PL1/PL2-DAT meat gave
'I gave meat to the cats'

Since *-(n)uuʃA* can occur in accusative and genitive contexts, this gap in its distribution violates the prediction in (3). Resolving this conflict is the challenge that this paper is concerned with.[1]

1.2 Solution preview

For concreteness this paper assumes a theory along the lines of Distributed Morphology, which proposes that the syntactic derivation builds a structure and then passes it on to the PF component of the grammar, where morpho-phonological form is assigned to the terminal nodes of the syntactic tree. This choice of framework is convenient since, as mentioned above, this is what is assumed by many works on the *ABA generalization and related concepts. Much work in this domain also assumes the Nanosynax approach to the syntax-morphology mapping (Starke, 2009; Caha, 2009; De Clercq & Wyngaerd, 2017, a.o.). For the purposes of the present paper, either of these frameworks could in principle suffice.

I argue that the gap in the distribution of *-(n)uuʃA* arises from a morphological property of this morpheme, which brings it into conflict with oblique case marking. To preview this property, compare (4) and (5a) above. In (4), typical accusative morphology (*-iijɵ*) affixes straightforwardly to the default plural *-(n)uud*. However, in (5a), the suppletive plural *-(n)uuʃA* appears without the typical accusative marking we saw in (4). As we'll see later on, combining *-(n)uuʃA* with typical accusative or genitive morphology results in an unacceptable form: evidently, *-(n)uuʃA* somehow bleeds the appearance of those case affixes. I hypothesize that this is so because *-(n)uuʃA* is a

[1]Note that *-(n)uud* and *-(n)uuʃA* are morphologically related: they share a subpart *-(n)uu* (whose /n/ segment arises when vowel-adjacent). Evidence that *-(n)uu* is a separate morpheme comes from the fact that with certain nouns (generally animate ones), plurality is expressed with only a suffix *-d*, which alternates with *-ʃA* in accusative/genitive contexts (i). Thus I hypothesize that plural marking in Barguzin Buryat is in fact *-d*, which has a suppletive variant *-ʃA*.

i. a. nʉxɵ-**d** jɵree
friend-PL.NOM came
'The friends came'

b. *nʉxɵ-**ʃɵ** jɵree
friend-PL.NOM came
'The friends came'

c. bi nʉxɵ-**ʃɵ** xaranab
1SG friend-PL.ACC see
'I see friends'

The separate element *-(n)uu* can be analyzed as part of a decomposed structure for number (Harbour, 2014, a.o.) or as an exponent of n^0 (Embick & Marantz, 2008; Embick, 2010) in plural contexts, that is null for a sub-set of nouns. For most nouns, however, *-(n)uu* does arise in plural contexts. Thus this paper will speak in terms of *-(n)uud*/*-(n)uuʃA*.

portmanteau of plural features, and accusative / genitive features. Since *-(n)uuʃA* expresses all of these features together, independent accusative / genitive marking does not co-occur with it.

I argue that because *-(n)uuʃA* expresses both plural and accusative / genitive features, it cannot co-occur with oblique marking, since following hierarchies like (2) oblique morphology also corresponds to accusative / genitive features (among others). That is, assuming that morpho-syntactic features are typically only expressed once (Bobaljik, 2000), insertion of *-(n)uuʃA* bleeds subsequent insertion of an oblique morpheme, since the former expresses features that the latter requires. Thus I argue that if *-(n)uuʃA* is inserted into an oblique nominal structure, that structure is ultimately ineffable and hence ungrammatical, since its case features cannot be fully spelled-out.

Consequently, *-(n)uuʃA* has an unusual ABA distribution not due to any systematic morpho-syntactic process, but rather due to what is in essence a paradigm gap stemming from an independent conflict in requirements for realization. This concept that a structure can fail to be assigned a pronunciation has precedent in previous works, such as Arregi & Nevins (2014) on paradigm gaps in Spanish, and Merchant (2015) on ellipsis in English-Greek code switching contexts.

1.3 Roadmap

Next, section 2 provides background on the *ABA generalization and theories of case containment. Section 3 describes the basics of Barguzin Buryat morpho-phonology, and argues that the *-(n)uud*/*-(n)uuʃA* alternation is not phonologically conditioned, before proceeding to describe the distribution of this plural morphology in detail. Section 4 provides the account, which argues that *-(n)uuʃA* conflicts with oblique morphology, such that the two cannot co-occur. Section 5 concludes.

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. (2018) argue that this hierarchy should be compressed into the structure in (7b), which is organized in terms of the case categories of Marantz (1991). In this simpler hierarchy, oblique cases contain "dependent" cases (accusative and ergative), which in turn contain "unmarked" cases (nominative and absolutive):

(7) **Two versions of case containment**

a. [[[[[[NOM] ACC] GEN] DAT] INSTR] COM]

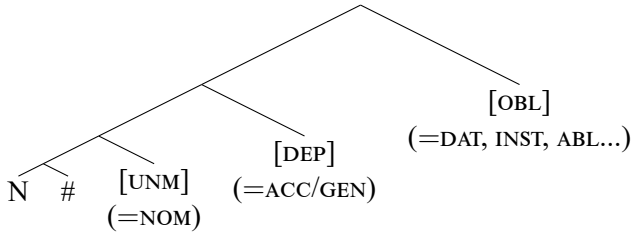
b. [[[Unmarked$_{(=\text{NOM/ABS})}$] Dependent$_{(=\text{ACC/ERG})}$] Oblique]

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. Zompì (2017) notes that the nature of genitive morphology is cross-linguistically rather variable, while Smith et al. (2018) exclude genitive from their study given that for them, the possibility of confounding genitive pronouns with separate possessive forms is problematic. Thus these works do not propose a definitive analysis for genitive case, which is therefore omitted from (7b). 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.[2]

With my assumptions about the case hierarchy now stated, consider the hierarchy in the context of the rest of the nominal phrase, as in (8) below. Here the nominal root N and the # node are dominated by the sequence of case nodes from the hierarchy in (7b) above, with genitive case included under the [DEP] node, and the irrelevant absolutive / ergative cases 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:

(8) **The case hierarchy in context**



With this structure in mind, consider the morphological rules in (9) below, which describe the exponence of plurality in Barguzin Buryat. The rule in (9a) encodes that the plural node is realized as *-(n)uuʃA* in accusative / genitive contexts, while the rule in (9b) states that the plural node is realized as *-(n)uud* by default, in the absence of the application of a more specific rule:

(9) **Realization rules for #$_{[\mathbf{PL}]}$ in Barguzin Buryat**

a. #$_{[\mathrm{PL}]}$ → *-(n)uuʃA* / __] DEP

b. #$_{[\mathrm{PL}]}$ → *-(n)uud* / elsewhere

If oblique structures properly contain the features of accusative / genitive cases, then the rule in (9a) predicts *-(n)uuʃA* to be available not only in accusative / genitive contexts, but in oblique ones as well. As previewed above, *-(n)uuʃA* cannot appear in oblique NPs. Since oblique contexts should contain the necessary contextual trigger for *-(n)uuʃA* to occur, this morpheme thus has an unexpected ABA distribution.

[2]Accusative and genitive case pattern together in Barguzin Buryat not only in that they both allow *-(n)uuʃA* 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 nominal-internal 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 thus that genitive might be considered parallel to dependent ergative. However, Baker argues that in contrast, genitive should not be taken to be 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.

3 The Buryat facts

This section overviews the relevant properties of Barguzin Buryat phonology and morphology, before proceeding to a more detailed description of the distribution of its plural morphology. Since this paper is concerned with a word-internal phenomenon, little will be said about the language's syntax. 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 Background on morpho-phonology

3.1.1 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 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 this does 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 properties of the preceding vowel.

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* [=<μ>]) is adjacent to a short vowel, the short vowel deletes:

(10) $V\mu \rightarrow \varnothing$ / ___$V\mu\mu$, $V\mu\mu$___ (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) $\varnothing \rightarrow$ g / $V\mu\mu$___$V\mu\mu$ (Staroverov & Zelensky, ex. 21)

a. ***gun*-INST**
buu + AAr → buu**g**aar

b. ***chicken*-ABL**
taxʲaa + AAn → taxʲaa**g**aan

3.1.2 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 later in the paper.

Accusative and genitive marking are comparatively complex, in a way that is partially phonologically determined. When affixing to a nominal form that ends in either a long vowel or diphthong, accusative case is *-(j)ə*, while genitive case is *-n*:

(12) **Accusative / genitive when following a heavy vocalic segment**

a. ɵʒii-**n**
mother-GEN

b. noxoi-**n**
dog-GEN

c. taxʲaa-**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 is *-Aijə/-iijə*, while genitive case is *-Ain/-iin*. When affixing to a form ending in a short vowel the hiatus process illustrated in (10) above deletes that vowel, as (13c-d) below show:

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

a. ail-**ain/iin**
family-GEN

b. ail-**aijə/iijə**
family-ACC

c. tarxi̲ → tarx-**aijə/iijə**
head head-ACC

d. tarxi̲ → tarx-**ain/iin**
head head-GEN

These longer variants of accusative and genitive shown in (13) are also sometimes truncated to just *-Ai/ii*. While there are a number of plausible ways of analyzing these facts about accusative and genitive morphology,[3] a descriptive level of understanding is all that the present paper will require.

3.1.3 The plural alternation is not phonological

Before proceeding to a more detailed description of plural morphology in this language, here I will argue that the relevant alternation between the plural forms *-(n)uud* and *-(n)uuʃA* is not phonologically conditioned. The most straightforward analysis along such lines would be to consider *-(n)uuʃA* a form derived from the plural *-(n)uud* plus a special case morpheme *-ʃA* that is syncretic for accusative and genitive, whose presence triggers deletion of the final /d/ of *-(n)uud* due to a phonological process that simplifies the potential [dʃ] cluster. Consistent with such an analysis is the fact that *-(n)uudʃA* is not a possible accusative or genitive form:

(14) ***-(n)uudʃA* is not a possible plural accusative/genitive form**

a. xarxur-nuu(*d)ʃa
fork-PL.[ACC/GEN]

b. galuu-nuu(*d)ʃa
goose-PL.[ACC/GEN]

c. ɵgɵʃɵ-nuu(*d)ʃɵ
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 (14).[4] This can be seen by combining the 2nd person singular possessive marker *-ʃni* with various nominal forms ending in /d/, as in (15):

[3]For instance, most of the facts are consistent with accusative and genitive marking having a requirement to be adjacent to a heavy vocalic segment, such that if the nominal form being affixed to does not already end in one, the segment *-Ai/ii-* is inserted to satisfy this need. I will leave the details of such an analysis aside, however, since the various forms of accusative and genitive are not relevant to the patterns this paper is concerned with.

[4]Analyzing *-ʃA* as a case marker is also incompatible with the evidence mentioned in footnote 1 above that the plural marker in this language is in fact only *-d/-ʃA*, with *-(n)uu* being an independent morpheme arising in some, but not all plural nouns. Example (15c) below shows an additional noun whose plural form need not contain *-(n)uu*.

(15) **[dʃ] is a possible cluster**

a. buryad-ʃni χaixan
buryad-2SG.POSS beautiful
'Your Buryat (person) is beautiful/handsome'

b. buza-nuud-ʃni amtatai
buuza-PL1-2SG.POSS tasty
'Your buuzas are tasty.'

c. basaga-d-ʃni
girl-PL1-2SG.POSS
'Your girls'

Since [dʃ] is independently possible in this language, there is no non-stipulative phonological explanation for the alternation between *-(n)uud* and *-(n)uuʃA*. Thus I take this alternation to be syntactically conditioned suppletion. If this view is correct, the puzzle that this alternation poses for the morpho-syntactic theories under discussion remains valid. Before proceeding to a solution for this puzzle, the remainder of this section describes some additional details about this plural morphology.

3.2 The form and distribution of plural morphology

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

(16) **Default plural occurs with all cases**

a. **Nominative**
miisgəi-**nuud**-∅ mairana
cat-PL1-NOM meow
'Cats meow'

b. **Accusative**
bi buuza-**nuud-iijə** ədʲəəb
1SG buuzy-PL1-ACC eat
'I eat buuzy'

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 *-(n)uuʃA* can occur in accusative and genitive environments (17-18),[5] it cannot occur in nominative ones (19).

[5]For the most part, this paper only shows instances of *-(n)uuʃA* with either objects, or possessors, as these are the most basic environments in the language for accusative and genitive case, respectively. The embedded subjects of nominalized clauses can also sometimes be either accusative or genitive (Bondarenko, 2018; Tatevosov et al., To appear), and as expected, when such subjects are plural, *-(n)uuʃA* is available for them:

ii. a. ojuna [koʃka-**jə/-nuuʃa** zaguu ədj-əə] gəʒə hana-na
Ojuna-NOM cat-ACC/PL2.ACC fish eat-PST C think-PRES
'Ojuna thinks that the cat(s) ate fish.'

(17) ***-(n)uuʃA* possible in accusative contexts**

a. bi buuza-**nuuʃa** ədʲəəb
1SG buuzy-PL2.ACC ate
'I ate buuzi'

b. badma əgəʃə-**nʉʉʃə** zolgoo
Badma sister-PL2.ACC met
'Badma met sisters'

(18) ***-(n)uuʃA* possible in genitive contexts**

a. əgəʃə-**nuuʃə** nʉxəd χain
sister-PL2.GEN friend nice
'The sisters' friends are nice'

b. ʃono-**nuuʃa** ʃudən xursa
wolf-PL2.GEN tooth sharp
'Wolf's teeth are sharp'

(19) **No *-(n)uuʃA* in nominative contexts**

a. *noxoi-**nuuʃa** jədəə
dog-PL2 came
'Dogs came'

b. *buuza-**nuuʃa** amtatai
Buuza-PL2 delicious
'Buuzy are delicious'

Notice that, as (16b/c) above show, typical accusative and genitive marking stack on top of the default plural. Contrast this with (17) and (18), where we see *-(n)uuʃA*, but no accusative or genitive marking: in both cases, only *-(n)uuʃA* appears. As (20) below shows explicitly, *-(n)uuʃA* 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 clarifying notes on the forms tested in (20) 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/-iijə* and *-Ain/-iin*. Thus an NP marked with *-(n)uuʃA*, which ends in a short vowel *-A*, would be expected to use these case forms. Since these phonologically-conditioned variants of accusative and genitive case begin with a heavy vocalic segment, stacking such case markers on top of *-(n)uuʃA* should cause the final short vowel of *-(n)uuʃA* to be deleted, given the hiatus process shown in (10) above. This expected phonological manipulation is performed in the examples of (20), which are nevertheless unacceptable.[6]

(20) ***-(n)uuʃA* is incompatible with typical accusative / genitive marking**

a. *bi miisgəi-**nʉʉʃ-iijə/əijə** xaranab
1SG cat-PL2-ACC see
'I see cats'

b. *bi ʃono-**nuuʃ-iijə** xaranab
1SG wolf-PL2-ACC see
'I see wolves'

c. *miisgəi-**nʉʉʃ-əin/iin** χʉʉl-nʉʉd uta
cat-PL2-GEN tail-PL2 long
'Cats tails are long'

d. *ʃono-**nuuʃ-ain** ʃudən xursa
wolf-PL2-GEN tooth sharp
'Wolves teeth are sharp'

b. [koʃk-**iin/-nuuʃa** zaguu ədj-əːʃ-iːn] sajan-ajə gaaruul-aa
cat-GEN/PL2.GEN fish eat-NML-3POSS Sajana-ACC angry-PST
'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.

[6]Since /g/-epenthesis only occurs between heavy vowels as shown in (11) above, we do not expect the examples of (20) to be grammatical if /g/ were inserted between *-(n)uuʃA* and the accusative/genitive marker, instead of deleting the final short vowel of *-(n)uuʃA*. Such examples are indeed unacceptable, but not shown here due to space constraints.

Finally, as previewed in the introduction, *-(n)uuʃA* is also distinct from the default plural marker in that it cannot occur in oblique contexts. This fact is shown exhaustively in (21) below, where we see that regardless of whether a hiatus avoidance process would apply, the resulting form is not acceptable. Here we also see that *-(n)uuʃA* is not only incompatible with oblique morphology, but also does not permit the omission of oblique morphology. Since we've seen that *-(n)uuʃA* is acceptable in accusative / genitive contexts provided that typical accusative / genitive marking is omitted, we might have expected *-(n)uuʃA* to be acceptable in oblique contexts provided that oblique marking is omitted. This is, however, not so.[7] Therefore *-(n)uuʃA* is completely unable to occur in NPs that inhabit contexts that assign an oblique case.

(21) ***-(n)uuʃA* cannot occur in oblique contexts in any way**

a. bi miisgəi-**nuud-tə/*nuuʃə-tə/*nuuʃə** mʲaxa ʉgөөb
1SG cat-PL1-DAT/PL2-DAT/PL2 meat gave
'I gave meat to the cats'

b. bi miisgəi-**nuud-təi/*nuuʃə-təi/*nuuʃə** xylgana alaab
1PL cat-PL1-COM/PL2-COM/PL2 mouse killed
'The cats and I together killed the mice'

c. bi miisgəi-**nuud-χəə/*nuuʃə-χəə/*nuuʃə** gʉi-ʒə arilaab
1PL cat-PL1-ABL/PL2-ABL/PL2 run-CNVB go.away
'I ran away from the cats'

d. bi miisgəi-**nuud-aan/*nuuʃ-aan/*nuuʃə-gaan/*nuuʃə** gʉi-ʒə 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/*nuuʃ-əər/*nuuʃə-gəər/*nuuʃə** omogorxonob
1PL cat-PL1-INST/PL2-INST/PL2-INST/PL2 be.proud.of
'I'm proud of the cats'

The fact that *-(n)uuʃA* causes legal omission of typical accusative / genitive marking, but not of oblique marking, will be important to the coming analysis.

[7]The behavior of *-(n)uuʃA* 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 *-(n)uuʃA* 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 (iiia-b). This possessive marking can also stack on top of *-(n)uuʃA* (iiic-d).

iii. a. ajmag-iijə-**mni**
district-ACC-1SG.POSS

b. noxoi-n-**ʃni**
dog-GEN-2SG.POSS

c. buuza-nuuʃ-**iimni**
buuza-PL2.ACC/GEN-1SG.POSS

d. ʃono-nuuʃ-**iinʲ**
wolf-PL2.ACC/GEN-3SG.POSS

This paper argues for an account that correctly predicts that *-(n)uuʃA* interacts (and conflicts) only with case marking, but not with other affixes.

4 *-(n)uuʃA* as a portmanteau and accidental ABA

This section provides an explanation for the impossibility of *-(n)uuʃA* in oblique contexts, from which stems its problematic ABA distribution. In brief, I argue that the morpho-syntactic features *-(n)uuʃA* expresses overlap with those required by oblique morphology, such that the two cannot co-exist. Thus only the default plural *-(n)uud* is ever seen to co-occur with oblique morphology.

At this point, clarification is necessary about the relationship between *-(n)uud* and *-(n)uuʃA*. Superficially, these two plural morphemes appear to be in free variation in accusative / genitive contexts. However, as mentioned, *-(n)uuʃA* is characterized by speakers as dialectical, colloquial, or informal. Based on this, I hypothesize that while the grammar of neutral speech contains only the lexical entry *-(n)uud* for the exponence of plurality, the colloquial grammar contains both the lexical items *-(n)uud* and *-(n)uuʃA*, the latter of which obligatorily arises in accusative / genitive contexts in this register. Thus while *-(n)uuʃA* is required when applicable in the colloquial register, the use of that register is not itself obligatory. Consequently, *-(n)uuʃA* is superficially optional.[8]

4.1 Assumptions about case morphology

This paper's analysis depends on a final assumption about case morphology. If there is a case containment hierarchy such that cases beyond nominative correspond to an articulated structure, a question arises about why case morphology in many languages is not internally complex in a surface-evident way. Smith et al. (2018) argue that in some languages, such as Khanty and Kalderaš Romani, case morphology is in fact complex in the predicted manner, with each node of the case hierarchy being independently spelled-out. In contrast, I assume that in languages with mono-morphemic case marking, all features of the case hierarchy present in a given context are spelled-out by a single morpheme, in the fashion of a portmanteau. 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, for this language I assume the following, building from the hierarchy in (8) above: nominative case expresses the feature [UNM] (22a), accusative and genitive case express the feature set [UNM DEP] (22b), and oblique cases express the set [UNM DEP OBL] (22c).

(22) **Mono-morphemic expression of the case layer**

a. **Nominative morphology**
[N # UNM]

b. **Accusative / genitive morphology**
[N # UNM DEP]

c. **Oblique morphology**
[N # UNM DEP OBL]

For now I leave the formalization of portmanteau formation aside, since numerous extant proposals are consistent with this analysis, though this will be explicitly discussed in 4.2.2 below.

[8] Taking *-(n)uuʃA* to be obligatory within the grammar it inhabits is consistent with the facts, and simplifies the coming analysis. However, even if *-(n)uuʃA* 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.

4.2 Deriving the facts

We are now in a position to analyze the distribution of *-(n)uuʃA*. Recall that, as we saw in section 3, *-(n)uuʃA* bleeds the appearance of independent accusative / genitive case morphology. *-(n)uuʃA* can successfully appear in contexts where those cases are typically assigned, provided that their corresponding morphology is omitted. I hypothesize that this property of *-(n)uuʃA* emerges from the fact that this morpheme is actually a portmanteau of plural number, and the features of accusative / genitive case. As per (22b) above, accusative / genitive case morphology corresponds to the feature set [UNM DEP], meaning that *-(n)uuʃA* must express these case features, along with a plural number feature, as we see in (23a) below. This is in contrast to the default plural *-(n)uud* shown in (23b), which expresses only [#$_{PL}$]:

(23) **Exponence of plural morphology**

a. **Suppletive plural *-(n)uuʃA* spells-out [#$_{PL}$], [UNM], and [DEP]**
[N [#$_{PL}$ UNM DEP]]

b. **Default plural *-(n)uud* spells-out only [#$_{PL}$]**
[N [#$_{PL}$] UNM DEP]

Notice that if *-(n)uuʃA* expresses the feature set [#$_{PL}$ 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 a derivation containing only the case features [UNM] and [DEP] would typically express those features via accusative / genitive morphology, if *-(n)uuʃA* is inserted, then *-(n)uuʃA* by itself successfully expresses those case features (as well as a plural feature). Thus use of *-(n)uuʃA* 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 *-(n)uuʃA* is inserted, typical accusative / genitive marking is not only unnecessary, but impossible, as (20) above showed. This assumption that a feature can only be spelled-out once will be central to deriving the conflict between *-(n)uuʃA* and oblique morphology, described next.

Since the default plural *-(n)uud* only spells-out the number node, and no case features, it does not conflict with any case morphology, as we've seen. This is illustrated in (24) below, where we see that the feature set expressed as *-(n)uud* does not overlap with that of either accusative / genitive case or oblique case morphology:

(24) **Default plural causes no conflict with case marking**

a. **Default plural + accusative / genitive morphology**
[N [#$_{PL}$] [UNM DEP]]

b. **Default plural + oblique morphology**
[N [#$_{PL}$] [UNM DEP OBL]]

In contrast, we've seen that *-(n)uuʃA* 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 *-(n)uuʃA* with oblique structures is similar, but different in an important way: while *-(n)uuʃA* successfully expresses all the case features present in an accusative / genitive context, *-(n)uuʃA* expresses only part of the features present in an oblique context. I argue that this

is why *-(n)uuʃA* encounters a problem in oblique NPs. Recall the hypothesis that oblique marking in a language with mono-morphemic case morphology expresses the feature set [UNM DEP OBL], as per (22c) above. Insertion of the lexical item *-(n)uuʃA* into a plural nominal structure bearing these case features spells-out [$\#_{PL}$ UNM DEP]. Notice that the latter two features in this set, [UNM] and [DEP], are also required in order to insert oblique morphology. Thus there is an overlap in the feature sets that *-(n)uuʃA* and oblique morphology respectively express, as (25) below shows:

(25) **Suppletive plural and oblique morphology both express [UNM, DEP]**

a. **Exponence of suppletive plural**
N $\boxed{\#_{PL}\ \textbf{UNM DEP}}$ OBL

b. **Exponence of oblique morphology**
N # $\boxed{\textbf{UNM DEP}\ \text{OBL}}$

Given this result, I argue that strings with both *-(n)uuʃA* 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. Assuming that lexical insertion typically applies to a structure bottom-up (Bobaljik, 2000, a.o.), when a plural oblique nominal structure is sent to PF in the context of the colloquial grammar to which *-(n)uuʃA* is endemic, *-(n)uuʃA* will be inserted before oblique morphology has a chance to arise.

What has been stated so far explains why oblique morphology does not co-occur with *-(n)uuʃA*. However, as (21) above showed, a syntactic context that assigns oblique case cannot contain *-(n)uuʃA* even if oblique morphology is simply un-expressed. Whether oblique marking is present, or not, the configuration is unacceptable. In this sense, accusative / genitive and oblique cases differ: while *-(n)uuʃA* evidently expresses accusative / genitive features successfully, it cannot by itself successfully express oblique cases. I argue that this is so because insertion of *-(n)uuʃA* into an oblique nominal structure leaves behind a lone [OBL] feature as we saw in (25a), which cannot by itself be expressed. Since oblique morphology corresponds to the feature set [UNM DEP OBL], that morphology cannot be inserted if only [OBL] is available for spell-out. Consequently, an oblique nominal structure where *-(n)uuʃA* has been inserted is ineffable, and thus ungrammatical. If there were a default, "elsewhere" lexical entry for a stand-alone [OBL] feature, then it could be expressed, and this ineffability problem would be avoided. In reality, there appears to be no such default form for [OBL], so this method of amelioration is unavailable. As a result, if *-(n)uuʃA* is inserted into an oblique nominal structure, that structure will fail to be fully realized.

4.2.1 On ineffability

The concept that some elements lack a default exponent, and thus can yield ungrammaticality by failing to be realized, has precedent. Harley (2014) argues that certain syntactic roots lack a default interpretation at Logical Form, preventing them from being interpreted outside of certain specific circumstances. Arregi & Nevins (2014) expand on Harley's proposal, arguing that gaps in the paradigms of certain Spanish verbs are explained if such verbs have only a context-specific lexical entry, but no default one, such that in some circumstances they cannot be assigned a pronunciation. A similar logic is used by Merchant (2015), who argues based on facts about ellipsis in English-Greek code switching discourses that it is possible for syntax to generate structures that fail to be pronounced, and thus cannot survive unless ellipsis removes the need to pronounce them.

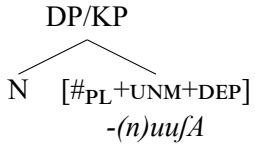
If these works are correct, syntactic structures are not simply assigned a pronunciation to whatever extent possible, and then uttered. Rather, sometimes a structure fails to be realized. In this vein, the present paper's analysis of Barguzin Buryat attributes the impossibility of *-(n)uuʃA* in nominals with oblique structure to what is in essence, a paradigm gap in the colloquial grammar, caused by the ineffability of those structures: if an oblique nominal structure is constructed in the context of the colloquial register, it will fail to be assigned an output by PF due to the way that *-(n)uuʃA* interacts with that structure. By contrast, such structures are successfully realized in the neutral register which lacks *-(n)uuʃA*, since in this context the only plural available is *-(n)uud*, which does not conflict with case marking. Hence only the default plural *-(n)uud* will ever be seen in oblique contexts in Barguzin Buryat, and consequently, *-(n)uuʃA* has an apparent ABA distribution.

4.2.2 On the formation of portmanteaux

While the portmanteau-hood of mono-morphemic case marking and *-(n)uuʃA* are vital to the above analysis, I have not committed to a specific formalization of portmanteau formation. This is because several proposals about portmanteau formation are equally compatible with this account.

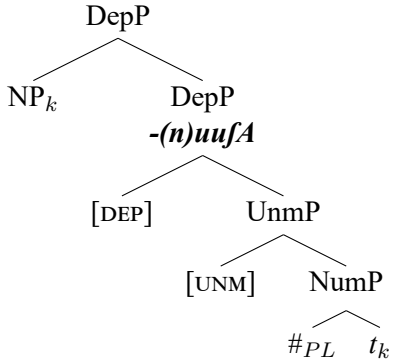
In Distributed Morphology, for instance, a lexical item only expresses the features of one syntactic terminal, unless a *fusion* operation unites the features of two (or more) terminals into one terminal prior to lexicalization. Under such a view, *-(n)uuʃA* is the realization of a terminal formed by fusion of three nodes: the plural number, [UNM], and [DEP] nodes.[9]

(26) **Derivation of *-(n)uuʃA* by fusion**



In contrast, the Nanosyntax approach allows lexical insertion at non-terminal positions. Since Nanosyntax assumes the Linear Correspondence Axiom (Kayne, 2002), in this framework a suffix of NP is derived by NP moving and adjoining to a non-terminal node containing all features expressed by that suffix. Under such a theory, *-(n)uuʃA* is derived by NP moving to a position where its sister is an intermediate node dominating the plural number node, [UNM], and [DEP]. This non-terminal is thus assigned the form *-(n)uuʃA*:

(27) **Derivation of *-(n)uuʃA* by non-terminal lexicalization**



[9]Portmanteau generation is also possible within such a framework without fusion, if we incorporate the possibility of multiple syntactic terminals being targeted by one instance of lexical insertion, via a mechanism like *spanning* under structural adjacency as in Svenonius (1995), or *stretching* under linear adjacency as in Ostrove (2018).

Both of these methods of forming a portmanteau capture this account's central proposal that *-(n)uuʃA* expresses both a plural feature, and part of the case hierarchy. Thus both of these formalizations are in principle compatible with the argument that *-(n)uuʃA* and oblique morphology cannot co-occur because *-(n)uuʃA* expresses features that oblique marking also requires.

5 Conclusion

This paper focused on a puzzle about the colloquial *-(n)uuʃA* plural in Barguzin Buryat, which occurs in accusative and genitive environments, but not oblique ones. If oblique cases contain the features of all other cases, as several works argue, then the impossibility of *-(n)uuʃA* in oblique environments instantiates an unexpected ABA suppletion pattern. Based on an in depth examination of the properties of *-(n)uuʃA*, I argued that this morpheme cannot co-occur with oblique morphology because the two compete for features. Hence this suppletive plural superficially has an ABA distribution due to what is, in essence, a paradigm gap stemming from an independent morphological conflict in the colloquial grammar of this language. Consequently, this pattern does not falsify the theories that ban ABA patterns under normal circumstances, but rather reveals a principled (though exceptional) way of deriving ABA within the context of such frameworks.

If the expected distribution of suppletion can be confounded by other factors such that ABA sometimes arises, then we expect to see ABA patterns occurring in other languages as well, but we predict that such patterns will always be attributable to the interference of atypical circumstances. This appears to be the case for ABA adjectival suppletion in Basque as analyzed by Bobaljik (2012), as well as for several potential cases of ABA which Smith et al. (2018) argue are attributable to independent phonological processes. The analysis of the present paper, if correct, reveals a purely morpho-syntactic method of deriving (superficial) ABA.

To conclude, while ABA patterns are attested in natural language, we expect them to never arise from the systematic processes of morpho-syntax, but rather from independent idiosyncrasies of the language in question. The evidence so far appears to indicate that this prediction is correct.

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