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

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Abstract: This paper examines the significance plural suppletion in Barguzin Buryat (Mongolic, Russia). This suppletion pattern is of interest because it displays what some recent work on allomorphy and the internal structure of case morphology considers an "ABA" distribution, which is predicted to be unattested. In particular, this suppletion is ABA because it occurs in accusative (and genitive) environments, but not oblique ones. This paper explains this unexpected pattern by arguing that it in fact arises from an independent conflict: oblique morphology is mutually exclusive with the suppletive plural in this language because the latter is a portmanteau of several features, some of which oblique marking also depends on. Hence the two cannot be expressed simultaneously. Thus a superficially problematic pattern arises in Barguzin Buryat due to what is in essence, a paradigm gap. If the theories under discussion are correct about the decomposition of case, and the mechanisms that ban ABA patterns under normal circumstances, then we indeed expect any ABA pattern to stem from an additional idiosyncratic factor, as this paper argues for Barguzin Buryat.

1 Introduction

This paper analyzes a pattern of case-driven plural suppletion in Barguzin Buryat (Mongolic, Russia), and its consequences for the theory of suppletion and case morphology. As we'll see, this pattern appears to violate the expectations of recent work on the internal structure of case morphemes, and the space of possible suppletion patterns. The goal of this paper is to argue that this Buryat pattern actually behaves as expected, once its intricacies are properly examined.

The term *suppletion* characterizes scenarios where one syntactic element corresponds to multiple phonologically unrelated forms. A recent body of work argues 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-/ex-clusivity, and Smith et al. (2018) on suppletion for case and number in pronouns, for instance, all argue with a basis in Distributed Morphology (DM, Halle & Marantz, 1993; Harley & Noyer, 1999, a.o.) that a generalization of this shape holds for the domains 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.

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, UNM = unmarked.

By constructing theories that derive (1), the works 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 characterizes suppletion failing in an environment that should contain the needed contextual trigger. Works in this domain argue that ABA patterns are indeed (essentially) absent from human language. As we'll see, however, Barguzin Buryat presents a potential counterexample to this *ABA generalization. The goal of this paper is to argue that this counterexample in fact dissolves, once the facts are examined in detail.

1.1   The puzzle

The generalization in (1) above is only expected to hold for domains in which there is a set of categories that exist in a containment relation. Several works have argued that case involves a hierarchy of the relevant type (Blake, 1994; Caha, 2009; Zompì, 2017; Smith et al., 2018, a.o.). Caha (2009), for instance, argues for the containment hierarchy in (2) below. This hierarchy states, among other relations, that the feature set corresponding to accusative case properly contains nominative, but is properly contained by the set of features corresponding to genitive, 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 make use of, (2) makes an assertion common to other case hierarchies, and important for this paper: that oblique cases are highest on the hierarchy. In (2), for instance, nominative, accusative, and genitive are all contained by dative, the lowest oblique case in the hierarchy. When combined with (1) above, the hierarchy in (2) leads to the prediction in (3):

(3)   **Prediction for suppletion in oblique case**
      Any suppletion in a given language triggered by accusative or genitive case should also be triggered by an oblique case.

This prediction is a consequence of oblique cases containing 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.[1] However, Barguzin Buryat does not behave as expected in this regard.

   The typical plural suffix in Barguzin Buryat is *-(n)uud*, which can appear in nominals of any case form—nominative, accusative, genitive, or oblique. As such, I assume that *-(n)uud* is the default, "elsewhere" 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

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[1]In particular, Smith et al. (2018) argue that this prediction is verified for accusative case, as well as ergative, which they take to be a counterpart of accusative. However, they leave genitive case aside for the most part, as discussed in section 4 below. While the status of genitive is indeed a complex issue, I argue that accusative and genitive are members of the same natural class in Barguzin Buryat, since the two pattern together in several ways. Further discussion of genitive case and its potential relationship to accusative is provided in appendix A.

'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 phonological process in the language that could derive *-(n)uuʃA* from *-(n)uud*, nor a semantic difference between these forms that my work has been able to observe, I regard *-(n)uuʃA* as a suppletive variant of the plural.[2] The *-(n)uuʃA* plural is limited to accusative and genitive contexts, as (5) below previews in an accusative one:

(5) **Suppletive plural *-(n)uuʃA* in an accusative context**

bi   miisgəi-**nuuʃə** xaranab
1SG cat-PL2.ACC   see

'I see cats'

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

(6) **No suppletive plural in oblique contexts**

Bi   miisgəi-**nuud/*nuuʃə**-tə mʲaxa ʉgөөb
1SG cat-PL1/PL2-DAT   meat   gave

'I gave meat to the cats'

The fact that *-(n)uuʃA* cannot co-occur in oblique contexts, in violation of the prediction in (3), presents the challenge that this paper is concerned with.

1.2 Solution preview

There are several plausible directions for an analysis of the above puzzle. It is conceivable that the prediction in (1) is too strong, or that the case hierarchy in (2) is inapplicable to Barguzin Buryat. Another possibility is that (1) and (2) are universally correct, but that an independent property of Barguzin Buryat prevents their interaction from yielding the predicted result in this language. This final option is the one I defend in this paper.

In particular, I argue that a morphological property of the suppletive plural *-(n)uuʃA* brings it into conflict with the expression of oblique case. To preview this property, compare and (4) and (5) above. In (4), typical accusative morphology (*-iijə*) affixes straightforwardly to the default plural *-(n)uud*. However, in (5), 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 insertion of those case affixes. I hypothesize that this is so because *-(n)uuʃA* is a portmanteau of plural features,

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[2]Note that *-(n)uud* and *-(n)uuʃA* are not completely unrelated: they share a subpart *-(n)uu* (whose /n/ segment arises when consonant-adjacent). As described in appendix B, some nouns permit expressing the plural with simply *-d/ʃA*, rather than the longer form *-(n)uud/-(n)uuʃA*. Based on these facts, I hypothesize that the plural morpheme in Barguzin Buryat is *-d/ʃA*, with *-(n)uu* being a separate morpheme that is not directly related to plurality, despite correlating with the presence of plural morphology. See appendix B for more discussion of the identity of *-(n)uu*.

and accusative / genitive features. Since it expresses all of these features at once, 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 spells-out 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 use of -*(n)uuʃA* makes a structure containing oblique case features ineffable. Consequently, -*(n)uuʃA* has an ABA distribution due to what is, in essence, a paradigm gap stemming from an independent conflict in requirements for realization. The required notion that some configurations fail to be assigned a pronunciation has precedent in previous works, such as Arregi & Nevins (2014) on paradigm gaps in certain Spanish verbs, and Merchant (2015) on ellipsis in English-Greek code switching contexts. As we'll see, an analysis along these lines for Barguzin Buryat is possible in Distributed Morphology, which most of this paper assumes, or Nanosyntax (Starke, 2009; Caha, 2009, a.o.), another framework that has been used to analyze *ABA effects.

1.3 Roadmap

Section 2 overviews the phonology and morphology of Barguzin Buryat. Section 3 describes the distribution of the suppletive plural -*(n)uuʃA* in detail. Section 4 describes the theories for which these facts are puzzling, along with some supplementary empirical details. Section 5 provides the solution, arguing that the portmanteau property of -*(n)uuʃA* yields its conflict with oblique marking. Section 6 provides some closing discussion, followed by two appendices. Appendix A discusses the status of genitive and its relationship to accusative, and appendix B discusses some additional facts about plural morphology in Barguzin Buryat.

2 Background on Barguzin Buryat

This section overviews the basic properties of Barguzin Buryat, focusing on the relevant phonological facts and case morphemes. 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 characteristic 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.

2.1 Phonology

Analyzing the morphology of Barguzin Buryat requires familiarity with a few phonological processes, which this subsection reports 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, these first three diphthongs are

merged to [e:], and the latter to [ɛ:]. This language also has moderately complex 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 are frequently affected by this language's two strategies for avoiding hiatus (vowel-vowel sequences). First, when a heavy vocalic segment (long vowel or diphthong, consisting of more than one *mora* [$="<\mu>"$]) is adjacent to a short vowel, the short vowel deletes:

(7) $V\mu \rightarrow \varnothing$ / ___$V\mu\mu$, $V\mu\mu$___   (Staroverov & Zelensky, ex. 20)

    a. ***leaf*-INST**
       nabʃA + AAr → nabʃ̶A̶AAr → nabʃaar

    b. ***wolf*-ABL**
       ʃono + aan → ʃonø̶aan → ʃonaan

    c. ***ask*-IMP**
       gui + A → guiA̶ → gui

Second, when two heavy vocalic segments are adjacent, neither is deleted. Rather, the segment /g/ (phonetically often [ɣ/ʁ]) appears between them, as (8) exemplifies. This is a typologically unusual epenthesis strategy, which is subject to some qualifications as Staroverov (2016) argues, but the level of description in (8) is sufficient for the present paper.

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

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

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

    c. ***wait*-PRT1**
       xʉlʲə: + A: → xʉlʲə:**g**ə:

This is the extent of phonological information necessary for the analysis.

2.2 Case morphology

This subsection describes case morphology in Barguzin Buryat, which interacts with the plural suppletion phenomenon in focus in this paper. Particularly relevant are accusative and genitive marking, whose morpho-phonological traits are somewhat complex.

Nominative case in this language is null, as is cross-linguistically frequent.[3] Given this, nominative case is not typically glossed in the examples shown in this paper.

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[3]However, there are nouns that have a suffix *-n* in the nominative (like *ʃʉlə-n* "soup-NOM"), though this /-n/ has a complex distribution which makes it unclear whether it actually instantiates nominative case or not. A similar puzzle holds for standard Buryat, as Poppe (1960) describes. Since the suppletion process in focus in this paper does not occur in nominative contexts, I leave this puzzle aside.

(9) **Null nominative**

    a. badma-∅   namaijə xaraa
         Badma-NOM 1SG.ACC saw
         'Badma saw me'

    b. [manai(n) miisgəi]-∅ nʲəətəi
         1PL.GEN   cat-NOM   funny
         'Our cat is funny'

Oblique case morphology suffixes to NP without any complication, though the hiatus avoidance strategies described in the previous subsection apply when needed. For instance, in (10d) below, /g/ epenthesis occurs between the NP *miisgəi* ("cat") and the instrumental suffix *-AAr*.

(10) **Some oblique forms**

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

    b. bi noxoi-**χoo** ainab
         1SG dog-ABL   be.afraid.of
         'I'm afraid of the dog'

    c. bi badm-**aar** omogorxonob
         1PL badma-INST be.proud.of
         'I'm proud of Badma'   [Final short vowel of *Badma* deleted]

    d. bi miisgəi-g**əər** omogorxonob
         1PL cat-INST   be.proud.of
         'I'm proud of the cat'   [/g/ insertion between diphthongs]

    Accusative and genitive marking are comparatively complex. The form of these cases is partially phonologically determined. When affixing to an NP ending in a heavy vowel (long vowel or diphthong), accusative marking is /-(j)ə/, and genitive marking is /-n/, as (11) shows:

(11) **Accusative /-(j)ə/ and genitive /-n/ when adjacent to heavy vowel**

    a. **əʒii-n**   miisgəi bʉdʉʉn
         mother-GEN cat   fat
         'Mother's cat is fat'

    d. dugar **noxoi-jə** xarana
         Dugar dog-ACC see
         'Dugar sees a dog'

    b. bi **əʒii-jə**   xaranaab
         1SG mother-ACC saw
         'I saw mother'

    e. bi **taxʲaa-jə**   xaraab
         1SG chicken-ACC see
         ' I see a chicken '

    c. **noxoi-n** xool ʉntəi
         dog-GEN food expensive
         'Dog food is expensive'

    f. bi **ʒodoo-jə**   xaraab
         1SG fir.tree-ACC see
         ' I see a fir tree '

However, when NP ends in a consonant (12) or a short vowel (13), accusative / genitive marking gain an element /Aj~ii/. Thus in such contexts accusative marking has the form /-Aijə/ or /-iijə/, while genitive marking has the form /-Ain/ or /-iin/. When NP ends in a short vowel, that short vowel deletes due to adjacency to that /Aj~ii/ segment, as per the first hiatus avoidance strategy mentioned in the previous subsection.

(12)   **/Aj~ii/ in accusative / genitive of NPs ending in consonant**

a. bog-***(oi)***n ʉngə boro
   trash-GEN   color grey
   'The trash's color is grey'

b. bi   bog-***(ii)***jə xaranaab
   1SG trash-ACC   saw
   'I see a piece of garbage'

c. dugar-***(ai/ii)***n miisgəi bʉdʉʉn
   Dugar-GEN   cat   fat
   'Dugar's cat is fat'

d. bi   dugar-***(ai/ii)***jə xaranaab
   1SG Dugar-ACC   saw
   'I saw Dugar'

e. ail-***(ai/ii)***n miisgəi bʉdʉʉn
   family-GEN cat   fat
   'The family's cat is fat'

f. bi   ail-***(ai/ii)***jə xaranaab
   1SG family-ACC saw
   'I saw the family'

(13)   **/Aj~ii/ in accusative / genitive of NPs ending in short vowel (which deletes)**

a. badma̲ → badm-aijə/iijə
   Badma   Badma-ACC

b. badma̲ → badm-ain/iin
   Badma   Badma-GEN

c. ʃono̲ → ʃon-oijə/iijə
   wolf   wolf-ACC

d. ʃono̲ → ʃon-oin/iin
   wolf   wolf-GEN

e. tarxi̲ → tarx-aijə/iijə
   head   head-ACC

f. tarxi̲ → tarx-ain/iin
   head   head-GEN

One way of describing these facts would be to state that accusative case is /-(j)ə/ and genitive case is /-n/, and that these morphemes must be adjacent to a heavy vocalic segment, such that if NP does not automatically provide one, an epenthetic element /Aj~ii/ (itself heavy) is inserted.[4] An alternative analysis in terms of phonologically-conditioned contextual allomorphy is likely possible as well. The analysis of these facts is not relevant to the investigation of plural suppletion, however. These details are mentioned here solely to set the stage for a thorough examination of the interaction of case morphology with plural morphology. With this established, the next section goes on to describe the facts about plural morphology that this paper focuses on.

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[4]However, /Aj/ (and to a lesser extent /ii/) can stand alone in forming fully-fledged genitive and accusative forms. Thus it is unclear whether /Aj~ii/ should be considered epenthetic:

i.   a. galuu-nuud-**əi** dali-nuud jəxə
        goose-PL-GEN wing-PL   big
        'Geese's wings are big'

     b. dugar-**ai**   miisgəi bʉdʉʉn
        Dugar-GEN cat   big
        'Dugar's cat is big'

     c. bi   galuu-nuud-**əi** xaranab
        1SG goose-PL-ACC see
        'I see geese'

     d. bi   dugar-**ai/ii** xaranab
        1SG Dugar-ACC see
        'I see Dugar'

These forms could plausibly be derived via an opaque derivation where the accusative or genitive suffix motivates epenthesis of /Aj~ii/, followed by a truncation process deleting the original accusative / genitive suffix. This line of investigation is beyond the scope of the present paper, however.

3 The form and distribution of plural morphology

As the introduction previewed, the basic plural morpheme in this language is *-(n)uud*. This morpheme is is not context-sensitive, and thus appears with NPs of any case, as (14-17) below show. These examples also show that the plural suffix sits between the nominal root and case marking:

(14) **Default plural in nominative**

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

    b. taxʲaa-**nuud**-∅ dongodono
       roosters-PL-NOM cluck
       'Roosters cluck'

    c. ʃuluu-**nuud**-∅ unaa
       stones-PL-NOM fell
       'Stones fall'

    d. basaga-**nuud**-∅ jərəə
       girls-PL-NOM   came
       'The girls arrived'

(15) **Default plural in accusative**

    a. dugar gər-**nuud-əijə** xarana
       Dugar house-PL1-ACC sees
       'Dugar sees a house'

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

    c. bi baabgai-**nuud-iijə** xaranam
       1SG bear-PL1-ACC   see
       'I see bears'

(16) **Default plural in genitive**

    a. ənə bagʃa-**nuud-ain** xəʃəəl-nʉʉd χonin
       this teacher-PL1-GEN lesson-PL   interesting
       'This teacher's lessons are interesting.'

    b. galuu-**nuud-ain/iin** dali-nuud jəxə
       goose-PL1-GEN   wing-PL big
       'Geese's wings are big.'

    c. səseg-**ʉʉd-iin**   dəlʲbə-nʉʉd χaixan
       flower-PL1-GEN petal-PL   nice
       'Flower's petals are nice.'

(17) **Default plural in oblique**

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

    b. badma xadxuur-**nuud-aar** ədʲəəlnə
       Badma fork-PL1-INST   ate
       'Badma ate with forks'

c. bi nʉxᵊr-**nuud-tᵊi-gᵊᵊ** magazin oʃoob
1SG friend-PL1-COM-REFL.POSS store went

'I went to the store with my friends'

d. bi bagʃa-**nuud-χaa** ainab
1SG teacher-PL1-ABL

'I'm afraid of the teachers'

e. bi bagʃa-**nuud-aan** ainab
1SG teacher-PL1-ABL be.afraid.of

'I'm afraid of teachers'

In contrast, the alternative plural form *-(n)uuʃA* can only occur in accusative and genitive environments, as (18-19) below show. Since *-(n)uud* and *-(n)uuʃA* are not related by any regular phonological process in the language, I regard *-(n)uuʃA* as a suppletive variant of the plural. Notice by contrast with (15-16) above that, as the introduction previewed, typical accusative / genitive marking does not occur when *-(n)uuʃA* is present. Thus *-(n)uuʃA* somehow serves to express both plurality and accusative / genitive case, as analyzed in section 5 later on:

(18) **Suppletive plural *-(n)uuʃA* 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'

c. dugar gᵊr-**nʉʉʃᵊ** xarana
Dugar house-PL2.ACC sees

'Dugar sees houses'

d. bi ʒodoo-**nuuʃa** xaranam
1SG fir.tree-PL2.ACC see

'I see fir trees'

(19) **Suppletive plural *-(n)uuʃA* in genitive contexts**

a. miisgᵊi-**nʉʉʃᵊ** χʉʉl-nʉʉd uta
cat-PL2.GEN tail-PL long

'Cat's tails are long'

b. ʒodoo-**nuuʃa** χalaa(-nuud) xʉrin
fir.tree-PL2.GEN branch-PL grey

'Branches of fir trees are grey'

c. ʃono-**nuuʃa** ʃudᵊn xursa
wolf-PL2.GEN tooth sharp

'Wolf's teeth are sharp'

d. ᵊgᵊʃᵊ-**nuuʃᵊ** nʉxᵊd χain
sister-PL2.GEN friend nice

'Sister's friends are nice'

All the examples of *-(n)uuʃA* shown so far occur with either a direct object, or a possessor, two sorts of NP that respectively host typical accusative and genitive marking in this language. Accusative and genitive marking can also occur on the subjects of certain embedded clauses: the subject of an embedded CP (20a) has accusative case marking, and the subject of a nominalized clause that is itself a subject (21a) carries genitive case marking (Tatevosov et al., To appear; Bondarenko, 2018). As (20b) and (21b) show, the subjects of these embedded clauses can use the *-(n)uuʃA* plural. This is as expected if *-(n)uuʃA* is available for accusative and genitive NPs in general, not just direct objects and possessors.

(20) **-(n)uuʃA with accusative subject of embedded CP**

    a. ojuna   [koʃka-**jɘ** zagu: ɘdj-ɘ:] gɘʒɘ hana-na
        Ojuna-NOM cat-ACC fish eat-PST C   think-PRES
        'Ojuna thinks that the cat ate fish.'

    b. ojuna   [koʃka-**nu:ʃa** zagu: ɘdj-ɘ:] gɘʒɘ hana-na
        Ojuna-NOM cat-PL.ACC fish eat-PST C   think-PRES
        'Ojuna thinks that the cats ate fish.'

(21) **-(n)uuʃA with genitive subject of a subject nominalized clause**

    a. [koʃk-**i:n** zagu: ɘdj-ɘ:ʃ-i:n]   sajan-ajɘ   ga:ru:l-a:
        cat-GEN fish eat-NML-3POSS Sajana-ACC angry-PST
        'That the cat ate the fish angered Sajana.'

    b. [koʃka-**nu:ʃa** zagu: ɘdj-ɘ:ʃ-i:n]   sajan-ajɘ   ga:ru:l-a:
        cat-PL.GEN fish eat-NML-3POSS Sajana-ACC angry-PST
        'That the cats ate the fish angered Sajana.'

    The above facts have shown the contexts in which -(n)uuʃA can occur. There are also several environments in which it cannot occur. For instance, -(n)uuʃA is impossible for nominative NPs:[5]

(22) **-(n)uuʃA ungrammatical in nominative NPs**

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

    b. *noxoi-**nuuʃa** jɘdɘɘ
        dog-PL2   came
        'Dogs came'

    c. *ɘgɘʃɘ-**nuuʃɘ** jɘdɘɘ
        sister-PL2   came
        'Sisters came'

    d. xʉbʉʉ-**nuuʃɘ**   noxoi xarana
        boy-PL2(ACC/*NOM) dog   see
        'A dog sees boys / *Boys see a dog'

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    [5]In (22d-f), there is a possible interpretation, but the noun marked with -(n)uuʃA must be interpreted either as a possessor or as an object that has been scrambled to a sentence-initial position, rather than as a subject. The fact that the nouns that are actually being interpreted as the subjects of (22d-e) are not marked with accusative case is not related to the fact that they aren't interpreted as objects, since case marking on objects is generally optional (Tatevosov et al., To appear), as exemplified in (ii):

    ii. a. badma noxoi xaranab   b. ɘgɘʃɘ-nʉʉd tax^jaa ɘdinɘ
            Badma dog saw   sisters   chicken eat
            'Badma saw a dog'   'The sisters eat chicken'

e. noxoi-**nuuʃa**   koʃka xarana

dog-PL2(ACC/*NOM) cat   see

'A cat sees dogs / *Dogs see a cat'

f. əgəʃə-**nuuʃə**   taxʲaa   ədinə

sister-PL2(GEN/*NOM) chicken eat

'(Someone) eats the sisters' chicken / *Sisters eat chicken'

While the lack of *-(n)uuʃA* in nominative environments will not be an issue for the theories in focus in this paper, more important is the fact that *-(n)uuʃA* also fails to occur in NPs that bear oblique case marking, as (23) shows. There is no phonological problem with these examples, since oblique morphology is able to affix to nouns of any shape.

(23)   ***-(n)uuʃA* ungrammatical with oblique cases**[6]

a. *bi   miisgəi-**nuuʃə**-tə mʲaxa ʉgөөb

1SG.NOM cat-PL2-DAT   meat gave

'I gave meat to the cats'

b. *bi nʉxər-**nuuʃə**-təi-gəə   magazin oʃoob

1SG friend-PL2-COM-REFL.POSS store   went

'I went to the store with my friends'

c. *bi bagʃa-**nuuʃa**-χaa ainab

1SG teacher-PL2-ABL

'I'm afraid of the teacher'

d. *bi bagʃa-**nuuʃ**-aan / -**nuuʃa**-gaan ainab

1SG teacher-PL2-ABL / PL-ABL   be.afraid.of

'I'm afraid of teachers'

e. *badma xadxuur-**nuuʃ**-aar / -**nuuʃa**-gaar ədʲəəlnə

Badma fork-PL2-INST   / -PL-INST   ate

'Badma ate with forks'

This paper's analysis will make central use of a further fact mentioned above: that *-(n)uuʃA* uniquely precludes use of typical accusative / genitive case marking. As (24) below shows, attempting to combine *-(n)uuʃA* with usual accusative / genitive morphology yields an unacceptable form. A few clarifying notes on the forms tested here are necessary. As mentioned in subsection 2.2 above, accusative and genitive marking on NPs that do not end in a heavy vowel requires such case marking to include the segment /Aj~ii/. Thus an NP with *-(n)uuʃA*, which ends in a short vowel, is expected to require the genitive form *-Ajn/iin* or accusative form *-Ajə/iijə*. Since /Aj~ii/ is a heavy vocalic segment, its presence is predicted to trigger deletion of the final short vowel of *-(n)uuʃA* to which it is adjacent, given the first hiatus avoidance strategy discussed in subsection 2.1, which we have already seen at work in examples (7) and (13) above. These expected phonological manipulations are reflected in (24):

_____

[6]Examples (d-e) involve case morphemes that have an initial heavy vowel, which should trigger deletion of the final short vowel of *-(n)uuʃA*. This is tested here, as is performing /g/ epenthesis instead of short vowel deletion. Neither hiatus avoidance strategy yields an acceptable form, however, suggesting that there is a morpho-syntactic issue with these configurations rather than a phonological one.

(24) **_-(n)uuʃA ungrammatical with typical accusative / genitive marking_**

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

b. *miisgəi-**nuuʃ-əin/iin** χuul-nʉʉd uta
   cat-PL-GEN   tail-PL2   long
   'Cats tails are long'

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

d. *dugar gər-**nuuʃ-iijə**   xarana
   dugar   house-PL2-ACC saw
   'Dugar saw houses'

e. *əgəʃə-**nuuʃ-iin** zʉrxən χain
   sister-PL2-GEN   heart   good
   'Sister's heart is kind'

f. *bi ʃono-**nuuʃ-ai/əi/oi/iijə** xaranab
   1SG wolf-PL2-ACC   see
   'I see wolves'

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

h. *noxoi-**nuuʃ-iin** ədʲəən amta-gʉi
   dog-PL2-GEN   food   tasty-NEG
   'Dog's food is not tasty'

Despite obeying these independent phonological requirements, the examples in (24) are unacceptable, suggesting that a morpho-syntactic issue prevents *-(n)uuʃA* from combining with typical accusative / genitive morphology.[7]

The description of the distribution of plural morphology in Barguzin Buryat is now complete. The next section overviews the theories for which the impossibility of *-(n)uuʃA* in oblique NPs is a puzzle, along with some related auxiliary concerns that set the stage for the analysis.

4 The theory and puzzle

4.1 Containment, suppletion, and *ABA

In order to describe the theories for which Barguzin Buryat poses a puzzle, it will be useful to first overview some results of Bobaljik (2012), whose contribution to the study of suppletion provides the basis for some of the concepts in focus in this paper. 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 its superlative form, as we see with the English *good* versus *be(t)* in (25a) below. The fact that suppletion in the comparative is carried over into the superlative here is what characterizes (25a) as an ABB pattern. In contrast, Bobaljik argues, adjectival suppletion patterns involving an alternation only in the superlative (AAB, 25b) or only in the comparative (ABA, 25c) are cross-linguistically absent:

---

[7]Since /g/-epenthesis only occurs between heavy vowels as stated in section 2, it is not predicted that the examples of (24) would be grammatical if /g/ were inserted between *-(n)uuʃA* and the accusative/genitive marker, instead of deleting the final short vowel of *-(n)uuʃA*. As (iii) shows, such examples with epenthesis are indeed ungrammatical:

iii. a. bi miisgəi-nuuʃə(*-giijə) xaranab
         1SG cat-PL2-ACC   saw
         'I saw a cat'

      b. miisgəi-nuuʃə(*-gəin) χuul-nʉʉd uta
         cat-PL2-GEN   tail-PL1   long
         'Cat's tails are long'

(25) a. ✓**ABB distribution**   b. ***AAB distribution**   c. ***ABA distribution**
    good / bett-er / be-st   *good / good-er / be-st*   *good / bett-er / good-est*

Bobaljik argues that the ABB pattern is so ubiquitous because superlatives contain the structure of a comparative, as (26) shows:

(26) **Structure of a superlative is built from a comparative**

Assuming as Bobaljik does that morpho-phonological form is assigned by post-syntactic rules that map lexical items to syntactic terminals, the structure in (26) accurately generates ABB adjectival suppletion given the set of rules in (27):

(27) **Realization rules for a hypothetical adjective**

    a. Adj → A

    b. Adj → B / _] Comparative

The rule in (27a) is the default pronunciation rule for a hypothetical adjective, which applies in the absence of any more specific rule, and (27b) is a context-sensitive allomorphy rule that yields suppletion of the adjective to an alternative form in comparative contexts. Since superlatives contain the structure of a comparative, the rule in (27b) applies not only in comparatives, but in superlatives as well. Thus this hypothetical adjective has the form A in the basic case, B in comparative contexts, and B in superlative contexts also. This is the widely-attested ABB pattern.[8]

Abstracting away from adjectival suppletion, the same distribution of suppletion is expected for any syntactic context where a suppletion-triggering category serves as the basis for subsequent structure building, as stated in (28):

(28) **Prediction for suppletion rules in containment 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.

As previewed earlier in this paper, case is another domain where a syntactic hierarchy of the relevant sort has been argued to exist. For instance, Caha (2009) argues based on patterns of syncretism for the hierarchy in (29) below:

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

Zompì (2017) and Smith et al. (2018) argue that this case hierarchy can be simplified into one that corresponds to the case categories proposed by Marantz (1991), arranged as in (30) below. 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).

---

[8]There also exist legitimate ABC patterns, where the basic, comparative, superlative form of an adjective are all different. Such patterns are not relevant for this paper, nor are AAB patterns, which Bobaljik (2012) argues are absent for adjectival suppletion, but which Smith et al. (2018) argue are attested in suppletion for case and number. Both of these works maintain the absence of ABA patterns, however.

(30) **Simplified case hierarchy**

While the case categories that these two hierarchies are framed in terms of differ, they are the same in positing that oblique cases are the most complex, and thus contain the features of all other cases as a proper subset. Thus for both hierarchies, it is predicted that any suppletion triggered by a non-oblique case should be triggered by oblique cases as well. Smith et al. (2018) argue based on a study of pronominal suppletion in over 70 languages that this prediction is correct.[9] However, I show that Barguzin Buryat does not behave as predicted, as discussed in detail shortly.

4.1.1   On the status of genitive in the case hierarchy

The remainder of this paper will speak primarily in terms of a hierarchy like (30) above, for a few reasons. This hierarchy is more general that in (29) since it also incorporates absolutive and ergative case, while also being simpler, compressing the various cases into 3 categories rather than 6 distinct ones. However, before considering the case hierarchy in light of the Barguzin Buryat facts, it is necessary to first address some complications regarding the status of genitive case. Notice that the hierarchies in (29) and (30) differ on the status of genitive: (29) places genitive adjacent to accusative, while (30) simply omits genitive. Smith et al. (2018) do not include genitive in (30) because they remain agnostic about its place in the hierarchy. They make this decision due to difficulties in systematically distinguishing true genitive forms from separate possessive pronominal forms, among other potential confounds.[10]

Since the suppletion process in Barguzin Buryat that the present paper focuses on is triggered by accusative and genitive cases, this paper cannot afford to be agnostic about the position of genitive in the hierarchy. Thus, while I will make use of a hierarchy like (30) for the rest of this paper, I add to (30) the qualification that genitive is indeed contained by oblique case, as encoded in Caha's (29). I reconcile this concept with (30) by hypothesizing that in Barguzin Buryat, genitive is in a natural class with accusative in that it is also a *dependent* case. In appendix A below, I discuss reasons for considering genitive a candidate for dependent case.[11]

---

[9]For instance, while the Icelandic 2nd person singular displays no suppletion whatsoever (an AAA pattern), several persons show suppletion in the accusative which is carried over into the dative (an ABB pattern) as exemplified with the 1st person singular below. Patterns of this shape are ubiquitous, as expected under the case containment hypothesis.

iv. **Icelandic 1st person singular**   (Adapted from Smith et al. table 6)

   a. **Nominative**   b. **Accusative**   c. **Dative**
       ég   mig   mér

[10]This paper focuses on suppletion in lexical nouns, so ambiguity with possessive pronouns is not a potential confound. However, the relevant suppletion pattern does occur in pronouns, as we will see in (58-59) below.

[11]While I will argue that genitive can plausibly be considered a dependent case in some languages / circumstances,

With the relevant theories outlined, and my assumptions about case stated, the next subsection proceeds to focus directly on the Buryat facts. Following the concerns just discussed, the rest of the paper speaks in terms of the case hierarchy in (31) below. This hierarchy is like that in (30), but adds genitive to the dependent class, and also omits absolutive and ergative, since these two cases are not relevant for Barguzin Buryat:

(31) **Simplified case hierarchy for Barguzin Buryat incorporating genitive**

Oblique [OBL]
(=DAT, INST, ABL, etc.)

Dependent [DEP]
(=ACC, GEN)

...   Unmarked [UNM]
(=NOM)
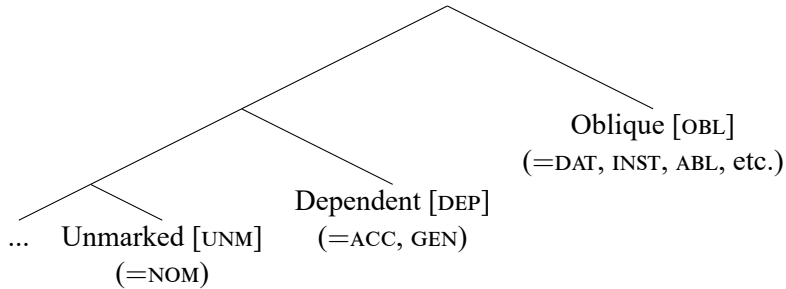
4.2   The plural puzzle

As example (32) illustrates once more, the suppletive plural *-(n)uuʃA* can occur in accusative and genitive NPs, but not oblique ones:

(32)   a.   *-(n)uuʃA* **possible: Accusative**
       bi   miisgəi-**nʉʉʃə** xaranab
       1SG cat-PL2.ACC   see
       'I see cats'

       b.   *-(n)uuʃA* **possible: Genitive**
       miisgəi-**nʉʉʃə** χʉʉl-nʉʉd uta
       cat-PL2.GEN   tail-PL   long
       'Cat's tails are long'

       c.   *-(n)uuʃA* **impossible: Oblique**
       Bi   miisgəi-**nuud/*nuuʃə**-tə mʲaxa ʉgөөb
       1SG cat-PL1/PL2-DAT   meat gave
       'I gave meat to the cats'

To understand why this fact is a puzzle for the theories under discussion, consider the case hierarchy in the context of the rest of the nominal domain, as in (33) below. Here the nominal root N and the # node are dominated by the sequence of case nodes from the hierarchy in (31) above. The # node sits between N and case features, 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 case structure. NPs bearing accusative or genitive case marking would lack the [OBL] node, while an NP with nominative case would lack all but the [UNM] node:

---

what is truly crucial for the present paper is the concept that genitive is a sub-part of oblique cases, as Caha argues. Given this, even if genitive is in fact never a dependent case, the substance of this paper's analysis does not change.

(33)   **Case layer in the context of NP**

DP/KP

[OBL]
(=DAT, INST, ABL…)

[DEP]
(=ACC/GEN)

N   #   [UNM]
(=NOM)
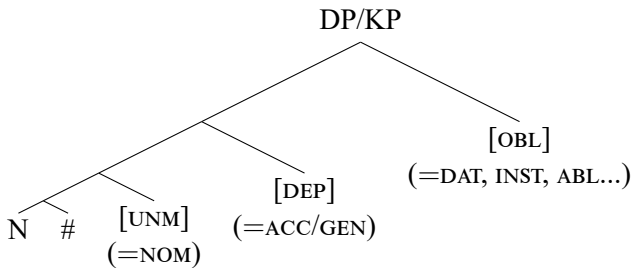
With this structure in mind, consider the the rules of morphological realization that characterize the expression of plurality in Barguzin Buryat, shown in (34) below. The rule in (34a) encodes the fact that the plural node is realized as *-(n)uuʃA* in accusative / genitive contexts. Further, the rule in (34b) states that the plural node is realized as *-(n)uud* by default, in the absence of the application of a more specific rule:

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

    a. #[PL] → *-(n)uuʃA* / [_____ DEP]

    b. #[PL] → *-(n)uud* / elsewhere

If oblique structures properly contain the features of accusative / genitive case ("dependent" cases in (33)), then the rule in (34a) predicts *-(n)uuʃA* to be available not only in accusative / genitive environments, but in oblique ones as well. We have seen that in reality, *-(n)uuʃA* cannot appear in oblique contexts. Since oblique contexts should contain the necessary contextual trigger for *-(n)uuʃA* to occur, this constitutes an unexpected ABA pattern for works like Smith et al. (2018).

There would be no puzzle here if oblique cases in Barguzin Buryat do not contain accusative / genitive features. Abandoning case containment is undesirable, however, given that this concept leads to correct predictions across many languages, as Caha (2009) and Smith et al. (2018) argue. Furthermore, differences in how *-(n)uuʃA* behaves in accusative / genitive and oblique contexts emerge naturally if case containment is assumed, as we'll see. Thus the present paper argues for an understanding of *-(n)uuʃA* that maintains the case hierarchy.

The next subsection considers an analysis of *-(n)uuʃA* which I ultimately do not adopt, before the main analysis is provided in the following section. Discussing the alternative first is useful, however, since doing so will bring up several additional facts that clarify what a sufficient analysis must achieve.

4.2.1   The right edge alignment hypothesis

It would fit the Buryat data shown so far to stipulate a requirement which forces *-(n)uuʃA* to appear at the right edge of the word it occupies. Such a requirement could be formally stated in terms of the alignment constraints that are sometimes used in phonological theory (McCarthy & Prince, 1993, a.o.). The presence of such a requirement could be used to approach an explanation for why *-(n)uuʃA* does not co-occur with independent accusative / genitive morphology, or oblique morphology: use of these morphemes would illegally separate *-(n)uuʃA* from the right edge.

A challenge for such an analysis arises from the fact that while *-(n)uuʃA* can suppress typical accusative / genitive marking and yield a licit string (18-19), the same is not true for oblique morphology. As we see in (35) below, whether a context that typically assigns oblique case expresses

that case overtly, or suppresses it, the presence of *-(n)uuʃA* is unacceptable. Thus a syntactic context typically correlated with oblique case cannot be reconciled with *-(n)uuʃA*:[12]

(35) **-(n)uuʃA does not permit the presence, or deletion, of oblique morphology**

    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'

Speaking in the terms of Optimality Theory (Prince & Smolensky, 1993), it is conceivable that a hypothetical right edge alignment constraint of *-(n)uuʃA* might outrank faithfulness to accusative / genitive marking (hence licensing their grammatical deletion) but not faithfulness to oblique marking (hence this case must be expressed, violating the alignment requirement of *-(n)uuʃA*). Such an analysis is not obviously more than a description translated into the logic of constraints, however.

    Additional constraints and rankings would need to be posited, without obvious independent evidence, to accommodate further facts relating to the distribution of possessive agreement morphology. Such morphology tracks the person features of a noun's possessor, and as (36) below shows, this morphology appears to the right of case morphology:

(36) **Possessive marking stacked on case marking**   (Tatevosov et al., To appear)

    a. ajmag-iijə-mni   c. noxoi-n-ʃni
        district-ACC-1SG.POSS   dog-GEN-2SG.POSS

    b. uhan-ajn-iin[j]   d. gər-nuud-tə-mni
        water-GEN-3SG.POSS   house-PL-DAT-1SG.POSS

---

[12]The next section will argue that *-(n)uuʃA* suppresses independent accusative / genitive morphology because it is a portmanteau of plural and accusative / genitive features. Thus when *-(n)uuʃA* is inserted, accusative / genitive features are spelled-out, and their typical independent exponent doesn't arise. The examples in (35) show that such an analysis does not extend to the impossibility of oblique case with *-(n)uuʃA*, however. If *-(n)uuʃA* were a portmanteau capable of expressing oblique case features, it should be able to successfully suppress independent oblique morphology, since it would by itself successfully lexicalize oblique case features. As (35) shows us, this is not possible. Thus *-(n)uuʃA* does not express oblique features, and a different explanation for the incompatibility of *-(n)uuʃA* with obliques is necessary.

Importantly, as (37) shows, such possessive agreement marking can also follow *-(n)uuʃA* (with the expected hiatus avoidance processes applying). Such examples indicate that there is no general requirement forcing *-(n)uuʃA* to be at the right edge of the word:

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

    a. bi   buuza-nuuʃ-**aa**   ədʲəəb
        1SG buuza-PL2.ACC-REFL ate
        I ate my buuzi

    b. ʃi   buuza-nuuʃ-**iimni** ədʲəəʃ
        2SG buuza-PL2.ACC-1P ate
        You ate my buuzi

    c. bi   dugar-ai   ʃono-nuuʃ-**iinʲ**   xaranam
        1SG dugar-PL2.GEN wolf-PL.ACC-3POSS see
        I see dugar's wolves

    d. əgəʃə-nʉʉʃ-**iin**   zʉrxən χain
        sister-PL2.GEN-3POSS hear   good
        (3SG's) sister's heart is kind

    e. əgəʃə-nʉʉʃ-**iinʲ**   xaranam
        sister-PL.GEN-3POSS see
        I see (3SG)'s sisters

The next section pursues an analysis which does not appeal to a general alignment constraint on the distribution of *-(n)uuʃA*, but rather, argues that this morpheme's appearance is governed by principled factors of morpho-syntax.

5   *-(n)uuʃA* **as a portmanteau and ABA via ineffability**

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 coexist. Thus only the default plural *-(n)uud* will ever be seen to co-occur with oblique morphology. This section first describes the analysis in relatively theory-neutral terms, before providing a more formalized description of the account in later subsections.

At this point, clarification is necessary on 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 obligatorily triggered in accusative / genitive contexts in this register. Thus while *-(n)uuʃA* is required when applicable in the colloquial register that it is endemic to, the use of that register is not itself obligatory. Consequently, *-(n)uuʃA* appears to be optional.[13]

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[13]Taking *-(n)uuʃA* to be obligatory within the grammar it inhabits is consistent with the facts, and simplifies the

The coming 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 correspondingly 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. For instance, as (38) exemplifies, many Khanty nominative pronouns are a transparent sub-part of their corresponding accusative form, which is in turn a sub-part of their oblique form:

(38)   **Some Khanty 1st person pronominal forms**   (Adapted from Smith et al. table 4)

    a.   **Nominative**   b.   **Accusative**   c.   **Dative**
       ma   ma:-ne:m   ma:-ne:m-na

Such patterns follow straightforwardly from each node of the case hierarchy being independently spelled-out in such languages, as the tree in (39) below illustrates:

(39)   **Transparent expression of case layers in Khanty**
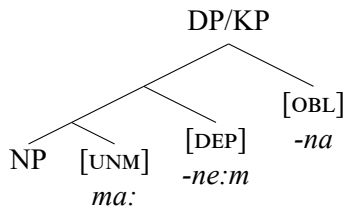
I assume that in contrast, languages with mono-morphemic case marking spell-out all features of the case hierarchy present in a given context with a single morpheme, in the fashion of a portmanteau. This is essentially the view taken in Caha (2009), whose Nanosyntactic approach entails that most case morphemes contain several nodes of the hierarchy, as discussed in section 5.2.2 below.

Since Barguzin Buryat is a language with mono-morphemic case morphology, for this language I assume the following, building from the hierarchy in (31) above: nominative case expresses the feature [UNM], accusative (and genitive) case express the feature set [UNM DEP], and oblique cases express the set [UNM DEP OBL]. This is diagrammed in (40) below, which also includes the N head and # node, which must be kept in mind for the coming analysis.

(40)   **Opaque expression of case layers via portmanteau**

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

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

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

---

formalization of 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. Thus under such a view also, the central puzzle remains.

5.1 Analysis: The nature and distribution of *-(n)uuʃA*

We are now in a position to analyze the distribution of *-(n)uuʃA*. First, as (41) shows once more, a unique property of *-(n)uuʃA* is that it 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:

(41) **Suppletive plural subsumes accusative / genitive morphology**   [from (24)]

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

    b. miisgəi-**[nʉʉʃə]**/**[*nʉʉʃ-əin/iin]** χʉʉl-nʉʉd yta
        cat-[PL2]/[*PL2-GEN]   tail-PL1   long
        'Cats' tails are long'

I hypothesize that this property of *-(n)uuʃA* emerges because this morpheme is a portmanteau of plural number, and the features of accusative / genitive case. As per (40b) above, accusative / genitive case morphology corresponds to the features [UNM DEP]. *-(n)uuʃA* thus expresses these case features, along with a plural [#] feature, as we see in (42a) below. This contrasts with the default plural shown in (42b), which is not a portmanteau and thus expresses only [#$_{PL}$]:

(42) a. **Suppletive plural spells out [#$_{PL}$], [UNM], and [DEP]**
      [N $\boxed{\text{#}_{PL}\text{ UNM DEP}}$]
    b. **Default plural spells-out only [#]**
      [N $\boxed{\text{#}_{PL}}$ UNM DEP]

The formation of portmanteau morphemes is discussed in detail later in this section. For the moment, however, notice that if *-(n)uuʃA* expresses the feature set [# UNM DEP], and accusative / genitive case express 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 features. Thus *-(n)uuʃA* yields nominal forms in accusative / genitive contexts which, despite lacking the typical independent case marking, are acceptable. This analysis assumes that morpho-syntactic features spelled-out by a given lexical insertion rule are deleted, and unavailable for subsequent spell-out (Bobaljik, 2000). Thus once *-(n)uuʃA* is inserted, typical accusative / genitive marking is not only unnecessary, but impossible, as (41) showed. This assumption that a feature is only spelled-out once will also be central to deriving the conflict between *-(n)uuʃA* and oblique morphology, which is demonstrated next.[14]

    Since the default plural *-(n)uud* only spells-out the number node, and no case features, it causes no conflict with any case morphology, as we've seen in reality. This is diagrammed in (43) below, where we see that the feature set corresponding to *-(n)uud* does not overlap with that of either accusative / genitive case or oblique case:

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[14]While this analysis requires morphological exponence to delete spelled-out features, multiple exponence of one feature does appear to exist (Harris, 2017). Distributed Morphology can model such scenarios via processes like agreement, fission, or contextual allomorphy. However, multiple exponence is not at issue in the Buryat patterns under examination here, so the possibility of multiple exponence can be set aside.

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

    a. **Default plural + accusative / genitive morphology**

        [N $\boxed{\#_{\text{PL}}}$ $\boxed{\text{UNM DEP}}$]

    b. **Default plural + oblique morphology**

        [N $\boxed{\#_{\text{PL}}}$ $\boxed{\text{UNM DEP OBL}}$]

We've just seen how, in contrast, *-(n)uuʃA* conflicts with accusative / genitive morphology in that it causes them to be omitted, by expressing 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 the case features present in an accusative / genitive context, *-(n)uuʃA* expresses only part of the features present in an oblique context, such that the derivation runs into a problem of ineffability. To see why, recall the hypothesis that oblique marking in a language with mono-morphemic case morphology expresses the feature set [UNM DEP OBL], as per (40c) above. Insertion of the lexical item *-(n)uuʃA* into a nominal structure bearing these features spells-out [# UNM DEP]. Notice that the latter two features in this set, [UNM] and [DEP] are also required in order to spell-out oblique morphology. In other words, there is overlap in the feature sets that *-(n)uuʃA* and oblique morphology respectively express, as (44) below shows:

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

    a. **Exponence of suppletive plural**

        N $\boxed{\text{\# UNM DEP}}$ OBL

    b. **Exponence of oblique morphology**

        N # $\boxed{\text{UNM DEP OBL}}$

Consequently, strings with both *-(n)uuʃA* and oblique morphology are ungrammatical because they cannot be generated: when *-(n)uuʃA* has been inserted, oblique morphology cannot also have been inserted, since some of the features which that morphology depends on were used up by *-(n)uuʃA*.

What has been stated so far explains why oblique morphology does not co-occur with *-(n)uuʃA*. However, as (35) above showed, a syntactic context that assigns oblique case cannot contain *-(n)uuʃA* even if the expected oblique morphology is simply un-expressed. Whether oblique case is expressed, or not, the configuration is unacceptable. In this sense, accusative / genitive and oblique morphology are different: *-(n)uuʃA* successfully expresses accusative / genitive features and prevents them from spelling-out independently, though the same is not possible for oblique cases. I argue that this is so because insertion of *-(n)uuʃA* into an oblique nominal structure leaves behind a lingering [OBL] feature, as we see in (44a) above, which cannot be expressed. Since oblique morphology requires 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 therefore 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, nominal structures with oblique case features cannot use *-(n)uuʃA,* since if they do, they cannot be fully spelled-out.

5.1.1 On ineffability

The concept that some elements lack a default exponent, and thus can yield ungrammaticality by ineffability, 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 paradigm gaps for certain Spanish verbs are explained if such verbs have one 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 by whatever means happen to be available, and then uttered. Rather, sometimes a structure can fail to meet the criteria for utter-ability within a given language or context. In this vein, the present paper's analysis for 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. Hence only the default plural *-(n)uud* will ever be seen in oblique contexts in Barguzin Buryat, and consequently, *-(n)uuʃA* has an accidental ABA distribution.

5.2 Formal implementation

The above discussion has assumed that morpho-phonological form is assigned to the output of syntax, but has not committed to a specific theory of morpho-syntax, nor formally described the means by which portmanteau morphemes are generated. The remainder of this section does this, and shows how the analysis can be framed in the context of either Distributed Morphology (Halle & Marantz, 1993; Harley & Noyer, 1999, a.o.) or Nanosyntax (Starke, 2009; Caha, 2009, a.o.), two frameworks actively used in current research on the *ABA generalization and related phenomena.

5.2.1 Implementation in Distrbuted Morphology

Distributed Morphology assumes that post-syntactic rules of lexical insertion (termed Vocabulary Insertion (VI) rules in this framework) can only target the terminal nodes of a syntactic tree. A lexical item subject to VI expresses the features of one terminal, unless a *fusion* operation (Halle & Marantz, 1993, a.o.) unites the features of two (or more) terminals into one terminal prior to VI. As a consequence, a single lexical item is mapped onto what were, originally, the features of multiple terminals. This is the method of portmanteau formation I adopt in this subsection.[15]

Above, I hypothesized that in languages where case is mono-morphemic, all case features in the hierarchy present in a given context are expressed together via a portmanteau (40). In the context of a fusion account of portmanteau formation, this entails the fusing of the [UNM] and [DEP] nodes

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[15]Portmanteau generation is possible without fusion if the theory permits multiple syntactic terminals to be targeted by one instance of VI, via a mechanism like *spanning* under structural adjacency as in Svenonius (1995), or *stretching* under linear adjacency as in Ostrove (2018). Either mechanism yields a single morpheme in the surface string that corresponds to multiple terminals of the underlying syntactic representation. The implementation of this subsection is equally tenable under this approach, or a fusion approach, though I opt to speak in terms of fusion since this operation is more standard in the literature.
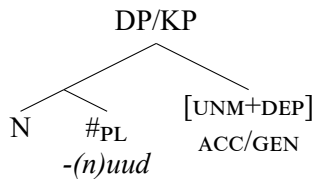
to feed the insertion of accusative / genitive morphology (45a), and the fusing of those same nodes plus a node [OBL] to form oblique morphology (45b):

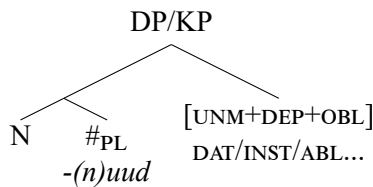(45)   a.   **Formation of accusative / genitive**   b.   **Formation of oblique**

DP/KP

N   [UNM+DEP]
ACC/GEN

DP/KP

N   [UNM+DEP+OBL]
DAT/INST/ABL...
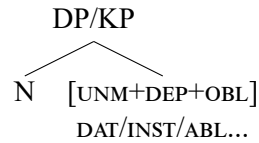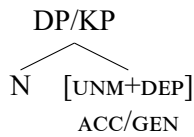
In a neutral register where the only expression of plurality available is the non-portmanteau morpheme *-(n)uud*, the [#PL] node undergoes no fusion, despite whatever fusion occurs in the case layer. This is illustrated in (46) below, which shows the co-occurrence of *-(n)uud* with accusative / genitive morphology (46a) and oblique morphology (46b):

(46)   a.   ***-(n)uud* with accusative / genitive morphology**

DP/KP

N   #PL   [UNM+DEP]
-(n)uud   ACC/GEN

b.   ***-(n)uud* with oblique morphology**

DP/KP

N   #PL   [UNM+DEP+OBL]
-(n)uud   DAT/INST/ABL...

I assume that in the grammar where *-(n)uuʃA* occurs, the presence of the [DEP] node triggers fusion of #PL. In a nominal phrase with accusative / genitive structure, the result of this fusion is the configuration in (47) below, where #PL is fused with the node containing case features. Insertion of *-(n)uuʃA* at this node successfully expresses both plural number and all case features present, yielding a grammatical result for an accusative / genitive NP. Independent accusative / genitive morphology is not inserted in this configuration, since the features that would be spelled-out as such are successfully expressed by *-(n)uuʃA* alone.

(47)   ***-(n)uuʃA* expresses fusion of plural and accusative / genitive features**

DP/KP

N   [#PL+UNM+DEP]
-(n)uuʃA
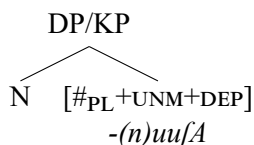
In contrast, the insertion of *-(n)uuʃA* in a configuration bearing the features of oblique case will be ungrammatical, because unlike the scenario in (47), a case feature will fail to be expressed. The relevant configuration is just like (47), but includes a fused [OBL] feature, since the addition of this feature is all that distinguishes accusative / genitive contexts from oblique ones. This is shown in (48) below. We see in (48a) that *-(n)uuʃA* can be inserted in this context, since the node produced by fusion here contains [#PL] as well as the case features [UNM DEP]. Insertion of *-(n)uuʃA* spells-out those features and removes them from the representation, as shown by their crossing-out in

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(48a). After this occurs, only the feature [OBL], which *-(n)uuʃA* did not express, remains available for spell-out. However, oblique morphology must spell-out not only [OBL], but the entire features set [UNM DEP OBL]. Since all of those features but [OBL] were spelled-out by *-(n)uuʃA*, oblique morphology cannot be inserted here, as (48b) shows:

(48) a. **-(n)uuʃA partially expresses features of oblique context**

        DP/KP

    N   [#~~PL~~+~~UNM~~+~~DEP~~+OBL]

        -(n)uuʃA
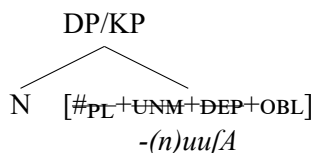
   b. **Presence of -(n)uuʃA prevents inserting oblique morphology**

        DP/KP

    N   [#~~PL~~+~~UNM~~+~~DEP~~+OBL]

    -(n)uuʃA *-DAT/*-INST/*-ABL...
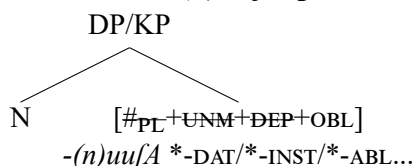
Given that a lingering [OBL] feature does not have a default exponent in this language, the consequence is that an oblique nominal structure is ineffable when *-(n)uuʃA* is present. Since the only possible lexicalization of [OBL] is not applicable, the derivation is unsuccessful.[16]

5.2.2 Implementation in Nanosyntax

While standard Distributed Morphology assumes that lexical insertion can only occur at terminal nodes, the theory of Nanosyntax (Starke, 2009; Caha, 2009, a.o.) argues that it can target non-terminal positions as well. Such an approach to morpho-syntax has been argued for by several works on *ABA and related phenomena, including Caha (2009) and more (Caha, 2013, 2017; De Clercq & Wyngaerd, 2017, a.o.). Thus, it is worth showing how such an approach to morpho-syntax handles the present paper's analysis.

Since lexical insertion in non-terminal positions automatically entails that morphemes can correspond to positions containing multiple terminals, Nanosyntax permits portmanteau formation with no additional assumptions. However, this theory depends on several other unique principles. Following the Nanosyntactic approach to case in Caha (2009), those principles are as stated in (49) below. Of particular importance is (49a), which allows a morpheme to be assigned to a node that contains only a sub-set of the features that the morpheme is defined as corresponding to. In other words, a morpheme may correspond to a superset of the features of its context of insertion.

(49) a. **The Superset Principle**   (Caha 2009, p. 55)
     A phonological exponent is inserted into a node if its lexical entry has a (sub-)constituent which matches that node.

---

[16]If one syntactic terminal can only host one morpheme, then such concerns automatically rule out the expression of the lingering [OBL] feature after insertion of *-(n)uuʃA*, as desired. However, this concern is a byproduct of assuming fusion for portmanteau formation, to which this analysis is not crucially committed. As mentioned in footnote 15 above, this analysis also holds in a theory where portmanteau formation involves mapping a single morpheme in the surface representation to multiple adjacent syntactic terminals. Under such a theory, fusion need not be posited, thus all terminals in the structure can be assumed to remain independent (modulo head movement). In such a theory without fusion, [OBL] will remain a stand-alone terminal that is available for lexical insertion in (48b). However, as this section argues, there is no lexical entry that can express [OBL] when *-(n)uuʃA* is present.

b. **Match** (Caha 2009, p. 67)

A lexical constituent matches a node in the syntax if it is identical to that node, ignoring traces and spelled out constituents.

c. **The Elsewhere Condition** (Caha 2009, p. 55)

In case two rules, R1 and R2, can apply in an environment E, R1 takes precedence over R2 if it applies in a proper subset of environments compared to R2.

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

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

We've seen already that Caha (2009) hypothesizes a relatively articulated case hierarchy. However, the principles of his approach apply equally well to hierarchies of any size. Since Caha's reasons for a more decomposed hierarchy are not relevant to the present paper, I will continue assuming the more compressed hierarchy [[[UNM]DEP]OBL].

The Nanosyntactic approach to morpho-syntax entails that suffixes are derived by phrasal movement. Thus an NP with a default plural suffix would be derived by movement of NP to the left of a phrasal node dominating #, as we see for the Barguzin Buryat default plural in (50). Since the sister node of NP contains the plural feature (the trace of NP being irrelevant), plural morphology *-(n)uud* can be assigned to the node that is the sister of NP:

(50) **NP moves to create default plural suffix**

NumP

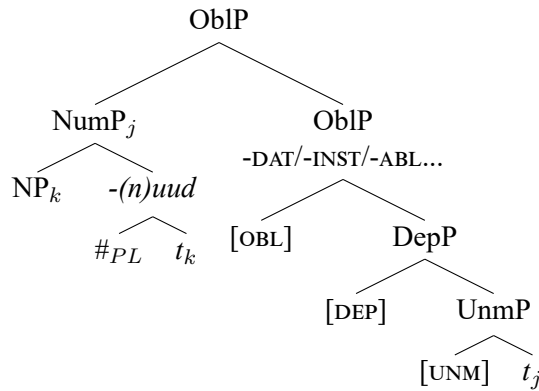NP$_k$ *-(n)uud*

\#$_{PL}$ t_k
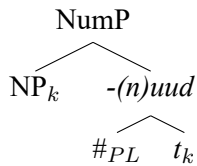
The structure in (50) has not yet incorporated the case layer, however. Continuing to assume that the case hierarchy dominates N and #, a nominal form with a plural suffix and a case suffix will involve the constituent derived in (50) moving to a position where a sub-tree corresponding to the case layer is its sister. Thus a genitive / accusative suffix is formed by movement to a position that is sister to a case layer containing [[UNM]DEP] (51a), whereas an oblique suffix is derived in the same way, provided that the case layer contains [[[UNM]DEP]OBL] (51b):

(51) **Deriving default plural suffix plus case suffix**

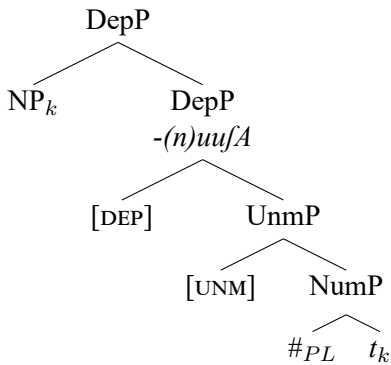a. **Default plural with accusative / genitive suffix**

DepP

NumP$_j$ DepP

                  -ACC/-GEN…

NP$_k$ *-(n)uud*   [DEP]   UnmP

\#$_{PL}$ t_k [UNM] t_j
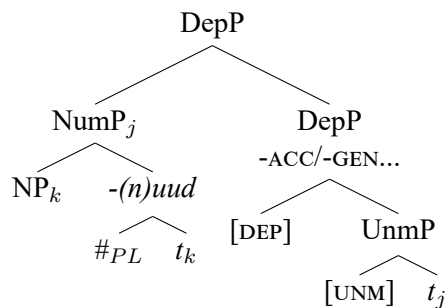
b. **Default plural with oblique suffix**

```
                        OblP
              ┌──────────┴──────────┐
           NumP_j                  OblP
        ┌────┴────┐         -DAT/-INST/-ABL...
      NP_k      -(n)uud      ┌───────┴───────┐
          ┌────┴────┐     [OBL]            DepP
        #_PL        t_k            ┌─────────┴─────────┐
                                 [DEP]              UnmP
                                              ┌──────┴──────┐
                                            [UNM]          t_j
```

Thus the default plural co-exists with case marking without issue, in both accusative / genitive and oblique configurations.

However, use of *-(n)uuʃA* interacts differently with case morphology. Since *-(n)uuʃA* is a suffix that spells-out the set [$\#_{PL}$ UNM DEP], its formation involves movement of NP to a position whose sister is a node dominating those features, as in (52) below. This configuration models a licit form for a nominal in an accusative / genitive syntactic context. The plural feature, as well as the relevant case features, are successfully expressed by *-(n)uuʃA*:

(52) **Derivation of *-(n)uuʃA* automatically expresses accusative / genitive features**

```
              DepP
       ┌───────┴───────┐
     NP_k             DepP
                    -(n)uuʃA
                ┌──────┴──────┐
             [DEP]           UnmP
                       ┌──────┴──────┐
                     [UNM]          NumP
                               ┌─────┴─────┐
                             #_PL         t_k
```

Deriving a structure with both *-(n)uuʃA* and an oblique suffix encounters a problem, however. Such a configuration would involve the [OBL] feature being externally merged to the structure in (52), since oblique morphology requires the addition of this feature to the case layer. After [OBL] is merged, the constituent containing NP and *-(n)uuʃA* moves to a position where [OBL] is within its sister, as we see in (53) below. If oblique morphology corresponds to the feature set [UNM DEP OBL] as assumed throughout this paper, then according to the the Superset Principle (49a), it should be possible to insert oblique morphology at the node dominating [OBL] in (53), since [OBL] is a subset of the relevant features. However, the Anchor Condition (49d) prevents [OBL] from being mapped to oblique morphology in the absence of the rest of the case hierarchy. Thus the movement necessary to derive *-(n)uuʃA* ultimately separates part of the case hierarchy, stranding [OBL], which cannot be spelled-out by itself. This derivation hence fails:

(53)   **Deriving *-(n)uuʃA* bleeds inserting oblique morphology**

```
                              OblP
                  ┌────────────┴────────────┐
               DepP_j                      OblP
           ┌────┴────┐                 *-DAT/*-INST/*-ABL…
         NP_k       DepP            ┌──────┴──────┐
                  -(n)uuʃA        [OBL]          t_j
              ┌─────┴─────┐
            [DEP]        UnmP
                     ┌────┴────┐
                   [UNM]      NumP
                           ┌───┴───┐
                           #      t_k
```
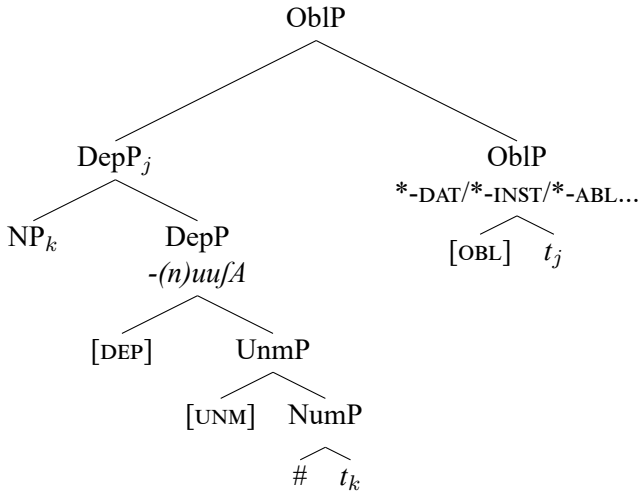
Before concluding this subsection, a final possibility must be considered. Recall (51b) above, where *-(n)uud* co-exists with oblique morphology. If the Superset Principle holds, it is unclear why *-(n)uuʃA* cannot simply be inserted into the position occupied by *-(n)uud* in (51b), and thus yield a configuration with both *-(n)uuʃA* and oblique morphology. Since the features of *-(n)uuʃA* are a superset of those of *-(n)uud*, this ought to be possible. However, the Elsewhere Condition (49c) permits only insertion of *-(n)uud* here, since *-(n)uud* is applicable to a proper subset of environments to which *-(n)uuʃA* is, since *-(n)uud* corresponds to less features. Hence this theory accurately maintains that *-(n)uuʃA* doesn't occur with oblique morphology.[17]

6   Concluding remarks

This paper focused on a puzzle about the *-(n)uuʃA* plural in Barguzin Buryat, which colloquially occurs in accusative and genitive environments, but not oblique ones. If oblique cases in fact contain the features of all other cases, as several works argue, then the impossibility of *-(n)uuʃA* in oblique environments instantiates an unexpected ABA 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 they compete for features, yielding an ineffable structure. Since the ABA distribution of *-(n)uuʃA* is fundamentally attributable to an accidental paradigm gap, this morpheme's distribution does not falsify the case hierarchy, or the mechanisms that ban ABA patterns under typical circumstances. If the general principles of morpho-syntax ban ABA patterns in normal configurations, we indeed expect any appearance of ABA to be attributable to an independent confound, as I have argued is precisely the state of affairs in Barguzin Buryat. Along the way, this analysis also provided additional evidence that it is possible for a structure to fail to be pronounced, as argued by Arregi & Nevins (2014) and Merchant (2015).

This analysis entails that there is a "back door" into ABA that arises when independent factors interfere with the expected distribution of suppletion. As the previous section emphasized, this

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[17]The Elsewhere Condition is necessary in Nanosyntax for the same reason that the Subset Principle is needed in Distributed Morphology. These frameworks differ in whether a lexical item can correspond to a superset, or subset, of the features in the context of insertion, but both frameworks are designed to select the morpheme that is the closest fit.

finding is not unique to one specific morphological framework: multiple approaches derive the same result. If ABA can generally be derived in this way, we expect it to arise when independent confounds are at work in other languages as well. ABA adjectival suppletion in Basque as discussed by Bobaljik (2012) is potentially a relevant example. While the analysis of other potential ABA patterns must wait until the relevant facts are discovered, it is clear that any ABA pattern identified is expected to be attributable to independent idiosyncrasies of the language in question.

7   Appendix A: The status of genitive case

As discussed in section 4, this paper follows Caha (2009) in taking genitive case to be a proper sub-set of the features of oblique case.[18] Caha argues that accusative is a sub-part of genitive case, though I suggested reconciling the containment of genitive by obliques with the more compressed hierarchy of Smith et al. (2018) by considering genitive a dependent case, in the terms of Marantz (1991), along with accusative case. If this hypothesis is right, then it should not be surprising that genitive case sometimes has the properties of a dependent case. Indeed, within Barguzin Buryat, we have already seen multiple ways that genitive case systematically patterns with accusative case. Both of these cases trigger plural suppletion in this language. These cases are also both subject to a morpho-phonological requirement motivating what could be described as epenthesis of an element /Aj~ii/ in certain phonological environments, as section 2 above showed. As far as I know, only accusative and genitive have these traits in this language. Thus it appears that Barguzin Buryat treats these cases as members of the same set. This follows if these cases can both be classified as members of the dependent class.

Several works argue that genitive is "unmarked" case within NP/DP, meaning that genitive is basically nominative case, but realized differently in a nominal environment (Marantz, 1991; Levin & Preminger, 2015; Baker, 2015). While this hypothesis is plausible for some languages, it is also conceivable that genitive might behave like a dependent case in other languages. To see why, consider how Marantz's (1991) case categories are assigned, represented in (54) below. Such an assignment algorithm is argued for by many works, and often implemented as a phase-by-phase process (Baker & Vinokurova, 2010; Baker, 2015; Levin & Preminger, 2015; Levin, 2017).

(54)   **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)

At step #2, any thus far case-less DPs in a c-command relation within the relevant domain are differentiated by giving one special marking, the dependent case.[19] Whether the nominal that receives

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[18]In a similar vein, van Baal & Don (2018) argue based on syncretism facts that possessive nominals contain dependent case features: possessives are often syncretic with accusative and ergative case, and with dative case, which Folli & Harley (2007) argue is a kind of dependent case as well.

[19]A variety of works pursue the intuition that the cases termed dependent in Marantz's terms have a dissimilatory

dependent case marking is the higher or lower one is a matter of language-particular choice, but the important point here is that when two nominal phrases exist in a c-command relation, dependent case is expected to arise. Thus when one nominal phrase c-commands another within DP, dependent case could plausibly arise in the DP as well. Baker (2015) notes that genitive case is syncretic with ergative in many languages, and argues that this is not surprising, since a possessor DP c-commands the NP of the possessum. Since ergative case is dependent case assigned to the higher of two nominals in a c-command relation, then this DP structure is precisely the variety of environment where ergative case is expected to be possible:[20]

(55) **Possessor DP assigned ergative case due to c-commanding possessum NP**

$$DP1$$
$$DP2_{Poss} \quad D \quad NP$$
$$[+\textsc{erg}]$$
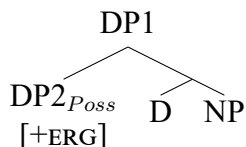
While some languages realize this nominal internal ergative case with typical ergative morphology, it is plausible that others might realize it as genitive case, thus yielding a genitive that is syntactically a dependent case. This perspective does not straightforwardly extend to accusative languages, where dependent case is assigned downward, not upward. However, it is possible that dependent case is assigned upward in the nominal domain, even in languages where it is assigned downward in the verbal domain. Furthermore, while Baker (2015) argues that genitive case should not be regarded as accusative-like, he mentions two languages that have accusative possessors: Martuthunira (Pama-Nyungan) and Karachai-Balkar (Turkic). Such findings are unsurprising if it is generally possible for dependent case to arise within the nominal domain.

To conclude, I hypothesize that dependent case assignment within DP is possible, and that such case is realized with genitive morphology in Barguzin Buryat. However, I do not maintain that genitive must be related to dependent cases in all languages. Some languages discussed by Baker (2015), such as Japanese, appear to possess true unmarked or default genitive. Additionally, Harðarson (2016) argues that there is cross-linguistic variance in the position of genitive in the case hierarchy. As such, maintaining that all genitives are dependent cases appears untenable.

8   Appendix B: More on plural morphology

This paper has spoken in terms of *-(n)uud* and *-(n)uuʃA* as the exponents of plurality in Barguzin Buryat. However, as mentioned in footnote 2, there is evidence that these morphemes can be further decomposed. In particular, it is possible that the *-(n)uu* segment that these morphemes share is a separate element, since some nouns allow plural marking with *-d* alone:

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function (Comrie, 1978; Haspelmath, 2008; Baker, 2015, a.o.). If two DPs being present in the same domain triggers dependent case marking to dissimilate them, it is plausible that when one DP contains another, the two must be dissimilated via dependent case as well. The *Distinctness* theory of Richards (2010) predicts a similar result.

[20]If 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).

(56) **-(n)uud plural versus -d plural**[21]

    a. miisgəi-**nuud** mairana   b. miisgəi-**d** mairana
       cat-PL   meow   cat-PL   meow
       'Cats meow'   'Cats meow'

While only some nouns permit the *-d* plural, for such nouns, *-d* alternates with *-ʃA* in at least accusative environments (56b, 57-59c). This alternation is also predicted to be possible in genitive contexts, but this study did not have the chance to test this.

(56) **Suppletion of the short plural**

    a. badma noxo-**d**-ii   xaraa   b. badma noxo-**ʃə**   xaraa
       Badma dog-PL-ACC saw   badma dog-PL.ACC saw
       'Badma saw a dog'   'Badma saw a dog'

As expected by this paper's analysis, the alternation of *-d* to *-ʃA* is impossible in nominative environments, as shown in (57-59). This study has not had the opportunity to test whether *-d* to *-ʃA* suppletion is banned in oblique contexts, though this is predicted:

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

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

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

    Evidently, *-d/-ʃA* is in principle an independent morpheme capable of expressing plurality. I hypothesize that *-d/-ʃA* is the true plural morpheme in this language, and therefore that *-(n)uu* is a separate morpheme. If this hypothesis is correct, *-(n)uud* in fact consists of *-(n)uu* + *-d*, with suppletion of the latter to *-ʃA* yielding the surface form *-(n)uuʃA*. This understanding is compatible with the facts reported in this paper, but does not establish what the identity of *-(n)uu* is.

    If the constituent traditionally considered NP actually consists of a lexical root that is granted its nominal category by n^0 (Embick & Marantz, 2008; Embick, 2010, a.o.), then NP in fact consists

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[21]There are also nouns that allow not only a short plural, but also a distinct plural form *-duud*. There is not enough data to permit making a concrete proposal about these forms, however:

  v. a. mori-nuud/-d/-duud χaixan   b. modo-nuud/-d/-duud χaixan
        horse-PL   pretty   tree-PL   pretty
   'Horses are pretty'   'Trees are pretty'

of two heads: n^0 and a root. Given such a structure, it is possible to identify *-(n)uu* as an allomorph of n^0 that arises in the context of a plural # node for some nominals in Barguzin Buryat:

(60)   **-(n)uu as allomorph of n^0 in plural contexts**
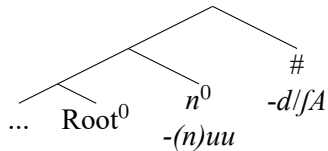
Alternatively, decomposing the syntax of number provides another potential position for *-(n)uu*. Harbour (2014) argues that number should be decomposed into two features, [+/-singular] and [+/-augmented]. In his system, singular corresponds to [+singular, -augmented], dual corresponds to [-singular, -augmented], and plural corresponds to [-singular, +augmented]. Smith et al. (2018) argue that these features are in a containment relation, such that [+/-singular] is contained by [+/-augmented]. Given such a structure, it is possible to identify *-(n)uu* as the exponent of [-singular] that some nominals use in the presence of [+augmented], which is always realized as *d/ʃA*:

(61)   **-(n)uu as allomorph of [-singular]**
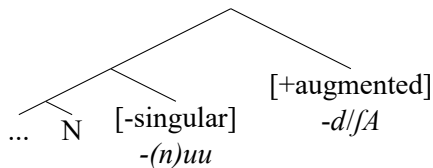
Either of these hypotheses presents an understanding of *-(n)uu* consistent with the facts, but adjudicating between these possibilities is beyond the scope of this paper's analysis.

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