# 1 Third person-sensitive allomorphy of accusative case of possessed nominals in Balkar and Kumyk[1]

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## 1.1 Introduction

Modern theories of phi-features (see Béjar & Rezac (2009), Preminger (2014), Kalin (2019) for person; see Pesetsky (2013), Nevins (2011), Despić (2017) for number, see Kramer (2015), Foley & Toosarvandani (2022), Caha (2021) for gender, see Harbour (2013) for a dissenting view) often assume that these features have privative nature and are arranged in feature geometries (Harley & Ritter (2002)), as shown in (1).

(1) Privative $\varphi$-feature geometries

a. Person
$\pi$
|
part
|
spkr

b. Number
num
|
pl
|
du

c. Gender
gen
|
anim
|
fem

Feature geometries such as (1a-c) above are arranged on the basis of implication (a feature cannot occur in the absence of features in dominating nodes), thus, the third person feature set is contained in the second and first person feature sets. For the purposes of morphology this means that any process sensitive to third person will be sensitive to first and second. It is not hard to find counterexamples to this consequence, for example, person agreement in English (2) arguably presents a problem since the only non-zero realisation of person agreement on regular verbs in present tense is of the third person.

(2) Person agreement in English present tense of regular verbs
   a. I/you.sg/we/you.pl/they like Radiohead.
   b. He/she/it like-s Radiohead

Some researchers (e.g., Preminger (2019)) have suggested that the privative distinction of syntactic features may be interpreted as a binary distinction of morphological features but this move is theoretically unattractive because of its implication that morphology and syntax operate on qual-

itatively different feature inventories, effectively undermining syntax-based realizational theories of morphology such as Distributed Morphology or Nanosyntax, the core claim of which is that morphology and syntax operate on the same type of objects.

This chapter attempts to account for a similar case of third person sensitivity without abandoning the idea of privative feature systems. It discusses an instance of accusative case affix allomorphy in two related languages, Balkar and Kumyk, which applies in the context of third person possessive affix, but not first or second person possessive affix, and argues that this phenomenon can be modelled with two assumptions. The first assumption is the well-known locality condition on allomorphy (Embick (2010); Bobaljik (2012)) and the second assumption is a Nanosyntax-inspired decomposition of feature sets into distinct structures (the 'one feature one head' motto). The core idea is that spkr and part syntactic nodes will disrupt the adjacency necessary for allomorphy creating the pattern of third person sensitivity without abandoning the privative feature theory. It will be argued that this idea may open new prospects for reassessing existing arguments against morphological privativity.

The chapter is structured as follows. Section 2 introduces the necessary theoretical background: privative feature systems and the locality condition on allomorphy in Distributed Morphology. Section 3 introduces Balkar and Kumyk data. Section 4 presents the analysis built upon the idea of privative features being separate heads, as in Nanosyntax. Section 5 concludes.

## 1.2 Background

This section presents the necessary theoretical background. The first part discusses features in contemporary syntactic theorizing with a focus on privative feature geometries (from Harley & Ritter (2002) onward) and their implications for possible morphosyntactic phenomena in natural language. The second part of this section discusses allomorphy in Distributed Morphology and its architectural restrictions based on the notion of locality.

### 1.2.1 Privative feature systems and their geometries

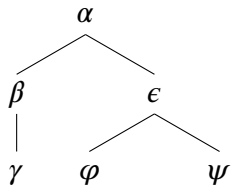
Features are the main driving mechanism of the contemporary syntactic theorizing (Adger & Svenonius (2011)). There are three types of feature systems: binary, privative and attribute-value. Attribute-value are the most complex due to the format of features F:__ where the blank may be occupied by any number of values. An attribute-value system for person features may look like 'Person: 1/2/3'. In morphosyntactic theorizing, this type of person feature system is hard to come by because this format does not call for the decomposition of person systems into complex feature systems, which have allowed to state important morphosyntactic generalizations (for example, the so-called hierarchy effects, or PCC effects, in morphosyntax, see Adger & Harbour (2007)).

Binary systems can be thought of as attribute-value systems with every feature having two values. Binary features follow the template ±F, where F is the feature with plus or minus as possible values. So, one could imagine a notation parallel to the attribute-value one (F:+/–). Since there are more than two persons, a binary system needs two features to encode the three-way distinction. Usually, ±speaker and ±participant are used (Halle (1997) proposed such a system, but see Kerstens (1993) for an earlier notational equivalent), which are linked to semantics of (not) being the speaker and (not) being a speech act participant. Any n-feature system generates $2^n$ possible feature sets. It is the feature sets (written in square brackets) that are associated with particu-

lar elements one attempts to encode. So, in such a system, first person is encoded as [+speaker, +participant], second person is encoded as [–speaker, +participant], and third person is encoded as [–speaker, –participant]. The fourth possible feature set, [+speaker, –participant] is ruled out for semantic reasons of incoherency, since it is impossible to be a speaker without being a speech act participant.

Privative systems only allow one value of the feature. For that reason, privative features are just written as F, without any value in the notation. The distinction that privative systems make is the distinction between presence and absence[2] of a feature, which is similar to the ± nature of binary systems. The distinctive property of existing privative systems are the feature geometries, which establish implication relations between features (a feature F1 cannot occur in the absence of F2). An abstract example of a feature geometry in given in (3). We should note that these geometries raise an ontological question: are feature geometries grammatical entities by themselves or notational tools to encode deeper properties (for example, a property of semantic entailment)? We will not go deep into this question, but the reader is referred to Harbour (2007).

(3) A feature geometry: presence of $\varphi$ or $\psi$ entails presence of $\epsilon$ and $\alpha$, presence of $\gamma$ entails presence of $\beta$ and $\alpha$, presence of $\beta$ or $\epsilon$ entails presence of $\alpha$




A privative system for person will use two privative features: spkr and part with a condition that spkr does not occur without part. Such a system generates three feature sets, empty set, [part], and [part, spkr], which correspond to third, second, and first person, respectively.

With all three types introduced, there is a feeling that all these systems are notational equivalents, with the sole conceptual argument for privative feature systems being putative simplicity (absence vs. presence is the simplest opposition one could imagine). However, it is not without a reason that contemporary syntax predominantly uses privative systems for ($\varphi$-)features. What are the possible empirical arguments for a certain feature system? Let us limit ourselves to the discussion of person features. In a privative system, third person is lack of person features whatsoever. This makes testable predictions for the domain of agreement.

Agreement (see Deal (2022), Preminger (to appear) for a discussion of agreement in modern syntactic theorizing) involves an agreeing probe that starts without features of a relevant type (which is called an unvalued feature) and a goal, which provides these features to a probe. For clarity, I will assume a version of Deal's interaction-satisfaction theory of agreement probes (Deal (2021)). It states that probes come with an interaction feature set (which an XP needs to have in order for agreement to happen) and a satisfaction feature set (which an XP needs to have in order for goal search to stop).

(4) A probe consists of:

[2]The absence of a feature should not be confused with a similarly looking notion of (un)valued features of Chomsky (2000). See Adger & Svenonius (2011) for a discussion that the valuation system introduces an attribute-value system in syntax, but the relevant values are feature sets.

a. An empty feature set [], onto which goal's features are copied.[3]
b. An interaction feature set [$F_1$, $F_2$, ..., $F_n$], which an XP needs to bear[4] in order to agree with the probe.
c. A satisfaction feature set [$F_1$, $F_2$, ..., $F_m$], which an XP needs to bear in order to stop probe's search for a goal.

There are two ways in which the fact that third person is a lack of person features can interact with agreement. The first one concerns the feature set of the probe (which gets morphologically realized). We expect there not to be any languages in which first/second person agreement morphology arises if agreement fails (no accessible goal is found by the probe, Preminger (2014)). The second one concerns the interaction feature set of the probe: if the third person is the lack of person features, then we expect that it is impossible to have a probe such that it only interacts with third person XPs.

Crucially, both predictions are borne out. Preminger (2019) notes that agreement failure is never associated with first/second person agreement morphology. Examples of failed agreement (long distance agreement in Basque, see Preminger (2009); anti-agreement, see Baier (2018)) result in either third person singular agreement morphology, or a special form for such cases. Additionally, there is no language where a probe agrees with third person XPs only (omnivorous agreement, Nevins (2011)).[5]

Facts above do not follow from the nature of binary/attribute-value systems because they treat third person on par with first and second person. It should be noted that nature of those systems does not make any predictions with respect to the default status of third person and lack of third person-sensitive omnivorous agreement, and these observations are not decisive arguments against binary or attribute-value systems. However, if we want to place the explanatory burden on the grammar itself, a privative system is the best bet.

It should be noted that major works have argued against privativity across the modules of grammar, most notably, I think, Daniel Harbour in a series of works (Harbour (2011); Harbour (2013); Harbour (2016)). Syntactic arguments come from against privativity from PCC effects (Adger & Harbour (2007); Nevins (2007)) and they have been addressed by Preminger (2019). Semantic arguments include, for example, the statement that only binary feature system can generate trial number from the smallest number of primitive features (but it should be noted that it generates them under the assumptions that [+F, –F] feature set is allowed by the grammar). I do not wish to claim that Harbour's arguments do not hold but leave a more involved exploration of them for future research.

Despite the existing criticisms, I agree with Preminger (2019) that privativity in morphosyntax is a well-motivated idea worth defending. However, a series of problems arises, however, if, along with most of mainstream generative practice, we assume some sort of a syntactic theory of morphology (e.g. Distributed Morphology; Halle & Marantz (1993)). If the morphology's task is to match syntactic information to phonological information via Vocabulary Insertion, then we ex-

[3] I do not take a position in the copying/sharing debate, see Pesetsky & Torrego (2007).

[4] XP bears a feature set [$F_1$, $F_2$, ..., $F_n$] iff all features of the set are found in the featural composition of XP.

[5] Grishin (2022) discusses a putative example of a third person omnivorous agreement in Algonquian. However, it is not clear that the argument is generalizable to languages without obviative systems.

pect morphological phenomena to act in parallel to syntactic phenomena with respect to privative feature systems. Namely, we expect there not to be morphological phenomena sensitive to third person in exclusion of first and second person. However, it is not hard to find counterexamples like English agreement, the exponent of which is *-s/z* in third person singular and zero elsewhere. Another example of this pattern in stem allomorphy is found in Haiki and is discussed by Harley (2014). This chapter, as has been said in the introduction, deals with a similar pattern with respect to accusative case allomorphy in Balkar and Kumyk. A crucial notion for the following material is the locality in allomorphy and the next part reviews the relevant literature.

### 1.2.2 Locality and allomorphy

The core idea of syntactic theories of morphology is that the building of complex morphological structures in done in syntax, which is then 'translated' into phonology by correspondence rules (Vocabulary Insertion, or VI, rules of Distributed Morphology). Clearly, this correspondence cannot be one-to-one due to the fact that some abstract morphemes have different phonological realizations. This phenomenon is called allomorphy. A relevant case for us may the case of comparative form of the English adjective *good*, which is *bett-er*. Unlike *dumb – dumb-er* and *bad – worse*, the adjective and comparative affix are realized independently but with the comparative causing allomorphy of the stem. Examples like this are called contextual allomorphy (Bobaljik (2000)).

(5) Comparative-conditioned stem allomorphy
   a. Three comparative strategies: dumb – dumb-er; good – bett-er; bad – worse
   b. Independent realization: dumb – dumber
   c. Cumulative realization (by whatever means): bad – worse
   d. Independent realization with induced stem allomorphy: good – better.

The question is, what are the restrictions on the allomorphy? Many influential works (like Embick (2010); Bobaljik (2012)) have argued that contextual allomorphy is constrained by some form of adjacency: either linear adjacency after linearization but before Vocabulary Insertion (Embick (2010)), or structural adjacency (Bobaljik (2012)). In this work we assume structural adjacency for clarity but see Merchant (2015), Moskal (2015), Ganenkov (2020), among many others, for criticisms of this (rather strong) condition on locality of allomorphy. It works like this: A can trigger allomorphy of B iff they are adjacent in the structure. We will assume that two heads X and Y are structurally adjacent if there is no head Z such that X asymmetrically c-commands Z and Z asymmetrically c-commands Y. Note that our working definition allows for two scenarios: a lower head triggers allomorphy of the higher head (inward-sensitivity) and vice versa. We assume that this is true, contextual allomorphy can be both inward- and outward-sensitive, see Bonet & Harbour (2012).

To recap this section, here are the necessary points for what comes next. First, (at least $\varphi$-) features are structured privatively in morphosyntax, which, when understood in the strongest form, rules out exclusive sensitivity to third person (a pattern found in Balkar and Kumyk accusative case allomorphy, as will be shown later). Secondly, contextual allomorphy is constrained by structural adjacency. And here is a sneak peek of the point of this paper. If we find a way for privative features to be able to disrupt structural adjacency, then we may derive allomorphy, which is conditioned by

an 'unmarked' option exclusively. In the next two sections, I will attempt to apply this idea to data from Balkar and Kumyk.

## 1.3 Balkar and Kumyk data

Balkar and Kumyk are two closely related Turkic languages spoken in Northern Caucasus regions of Russia (Balkar is spoken in Kabardino-Balkariya republic and Kumyk is spoken in Dagestan and North Ossetia-Alania republics). Both are almost identical with respect the discussed phenomenon, therefore, it makes sense to discuss them together. This section presents a rough sketch of their nominal declension systems and the accusative case allomorphy found in third person possessive case paradigm. Data of Balkar and Kumyk is taken from the author's and colleagues' fieldwork in the collaborative project of MSU's Altaic fieldwork expeditions. See Gadžiaxmedov et al. (2014) for a grammar of literary Kumyk and Podobryaev (2004) for a sketch of Balkar morphology.

### 1.3.1 Basics of nominal declension

Both Balkar and Kumyk are agglutinative languages with the nominal declension following the pattern schematized below. Plural, case and possessive affixes are non-obligatory, all three come after the nominal stem in the following order: pl, poss, case. The plural marker in both languages is *-lA(r)*, the possessives are *-(I)m* (poss.1sg), *-(I)ŋ* (poss.2sg), *-(I)bIz*, *-(I)gIz*[6] (poss.2sg) and *-(s)I(n)* (poss.3sg/pl)The case inventory is common for Turkic: zero nominative, accusative *-nI*/*-n*, genitive *-nI*, dative *-gA*/*-nA*, locative *-da* and ablative *-dan*.

(6) Nominal affix template
stem+(pl)+(poss)+(case)

Examples of non-possessive paradigms in Kumyk and Balkar are given below. The allomorphy of the plural affix in both languages is ignored in this work.

(7) Declension of the noun *ata* 'father' in Kumyk

| | sg | pl |
|---|---|---|
| nom | ata | ata-lar |
| acc | ata-nɨ | ata-la-nɨ |
| gen | ata-nɨ | ata-la-nɨ |
| dat | ata-ʁa | ata-la-ʁa |
| loc | ata-da | ata-lar-da |
| abl | ata-dan | ata-lar-dan |

(8) Declension of the noun *bala* 'child' in Balkar

[6] Velar stops are sensitive to vowel harmony and have two variants: g/ʁ and k/q.

| | sg | pl |
|---|---|---|
| nom | bala | bala-la |
| acc | bala-nɨ | bala-la-nɨ |
| gen | bala-nɨ | bala-la-nɨ |
| dat | bala-ʁa | bala-la-ʁa |
| loc | bala-da | bala-la-da |
| abl | bala-dan | bala-la-dan |

Note the following: there is a systemic syncretism between genitive and accusative (relevant paradigm cells are highlighted in grey). The reasons to distinguish the two cases comes from posessive paradigms discussed in the next subsection.

### 1.3.2 Possessive paradigms and accusative case

Possessive paradigms (without plural for the reasons of space) are given below. The important part is the genitive and accusative cases in the third person possessive forms (as in the previous subsection, highlighted in grey). While genitive retains its form *-nI*, accusative has changed into *-n*. There is of course the theoretical question here whether accusative is indeed *-n* or has a zero exponent, while causing third person possessive affix allomorphy, which is present in locative and ablative also.[7] Although there are reasons to prefer the second option (consider the locative and ablative forms of plural and third person possessive nouns in Kumyk), for simplicity, it is assumed here that the allomorph of accusative is *-n*.

(9) Possessive declension of the noun *ata* 'father' in Kumyk

| | 1sg | 2sg | 1pl | 2pl | 3sg/pl |
|---|---|---|---|---|---|
| nom | ata-m | ata-ŋ | ata-bɨz | ata-sɨz | ata-sɨ |
| acc | ata-m-mɨ | ata-ŋ-ŋɨ | ata-bɨz-nɨ | ata-sɨz-nɨ | ata-sɨ-n |
| gen | ata-m-mɨ | ata-ŋ-ŋɨ | ata-bɨz-nɨ | ata-sɨz-nɨ | ata-sɨ-nɨ |
| dat | ata-m-a | ata-ŋ-a | ata-bɨz-ʁa | ata-sɨz-ʁa | ata-sɨ-na |
| loc | ata-m-da | ata-ŋ-da | ata-bɨz-da | ata-sɨz-da | ata-sɨn-da |
| abl | ata-m-dan | ata-ŋ-dan | ata-bɨz-dan | ata-sɨz-dan | ata-sɨn-dan |

(10) Possessive declension of the noun *bala* 'child' in Balkar

| | 1sg | 2sg | 1pl | 2pl | 3sg/pl |
|---|---|---|---|---|---|
| nom | bala-m | bala-ŋ | bala-bɨz | bala-sɨz | bala-sɨ |
| acc | bala-m-mɨ | bala-ŋ-ŋɨ | bala-bɨz-nɨ | bala-sɨz-nɨ | bala-sɨ-n |
| gen | bala-m-mɨ | bala-ŋ-ŋɨ | bala-bɨz-nɨ | bala-sɨz-nɨ | bala-sɨ-nɨ |
| dat | bala-m-ma | bala-ŋ-ŋa | bala-bɨz-ʁa | bala-sɨz-ʁa | bala-sɨ-na |
| loc | bala-m-da | bala-ŋ-da | bala-bɨz-da | bala-sɨz-da | bala-sɨn-da |
| abl | bala-m-dan | bala-ŋ-dan | bala-bɨz-dan | bala-sɨz-dan | bala-sɨn-dan |

[7] Davis (2021) argues that *-n-* in locative and ablative should be analysed as overt containment of third person possessive accusative in locative and ablative. An interested reader is referred to his work, while this paper abstains from the discussion.

The data presents us with the following pattern. Accusative case has the allomorph *-n* used in third person possessive and the allomorph *-nI* used everywhere else. Therefore, Balkar and Kumyk present a case of true third person morphological sensitivity given that the *-nI* form acts as an elsewhere form. Cases like this, as noted in the introduction, go against the spirit of privative feature systems. If a rule is sensitive to a feature set, it applies in context of any of its supersets, which would predict that *-n* is used in all possessive forms, and that is not the case. The next section presents an attempt of accounting for the puzzle without abandoning privativity of features on any level of grammar.

## 1.4 Analysis

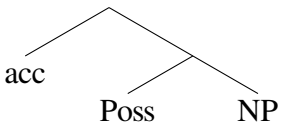
### 1.4.1 Privative features and adjacency

The core fact of the last section was the fact that accusative case in Balkar and Kumyk is realized as *-n* only in the context of third person possessive marker. This is a problem: if we want to assume that the only difference between possessives is their featural specification (on, let's say a Poss head, see Barker (1995) and subsequent work on possession, but I do not commit to any particular theory here), then any allomorphy rule sensitive to the Poss head with a third person feature set (an empty set due to privativity) should apply when the Poss head bears any superset (any set is a superset of an empty set) as well. Therefore, we would expect the allomorph *-n* to arise in all possessive accusatives. This puzzle is presented graphically in (11) with the assumption that nominative is the lack of case (see Kornfilt & Preminger (2015); McFadden (2018) for arguments in favour of this view).

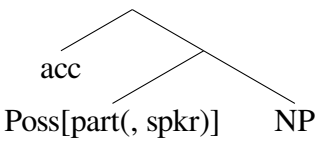
(11) The puzzle

a. VI rules (first version):
   i. [acc] ↔ *-n* / [__ Poss]
   ii. [acc] ↔ *-nI* elsewhere

b. Structure for third person possessive:




c. Structure for first/second person possessive:




d. The problem: the VI rule in (a-i) should apply to (b) and (c) but it does not.

There are two obvious ways to circumvent the problem. The first one would be to abandon privativity in morphology, as suggested by Preminger (2019). The second one would be to introduce two distinct rules (an elsewhere rule and a rule sensitive to part feature) that result in the same allomorph. However, the lack of diachronic evidence for such a system and its overall clunkiness calls for an alternative analysis. Thus, our desiderata are a two-rule VI system for accusative in Balkar

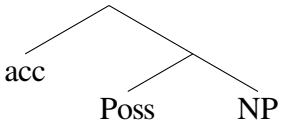
and Kumyk and a privative feature system in a scenario where it appears as if one desideratum needs to go: a privative feature system predicts impossibility of the observed pattern in a two-rule system.

Nevertheless, I think that meeting our desiderata is possible. In literature on Nanosyntax (Starke (2009) *et seq.*) it is an architectural principle that all features are privative and every privative feature is **its own syntactic head**. It is possible then that the [acc] allomorphy is sensitive to the Poss head itself and the first/second person feature nodes simply intervene and break the adjacency necessary for allomorphy, as shown below.

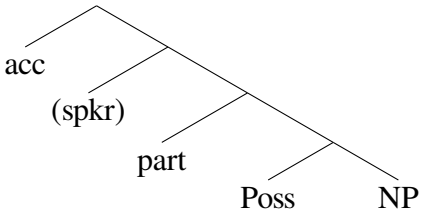
(12) The solution

a. VI rules:
[acc] ↔ *-n* / [__ Poss]
[acc] ↔ *-nI* elsewhere

b. Structure for third person possessive: [acc] and Poss are adjacent




c. Structure for first/second person possessive: [acc] and Poss are **not adjacent**




Let us repeat the logical structure of this subsection. The starting point was the fact that Balkar and Kumyk accusative case has a special form for third person possessives, which is a case of a morphological rule that applies to third person in exclusion of second and first. However, the mainstream privative system for $\varphi$-features predicts this to be impossible, if we assume that features reside on syntactic heads in a sort of parallel domain. If this assumption is dropped and we encode privativity of a feature as presence/absence of a corresponding feature head in the syntax, the exclusive third person sensitivity may be derived using the idea that allomorphy requires structural adjacency. However, it is not obvious whether importing ideas from Nanosyntax is possible without breaking the internal workings of a DM-like system. The next subsection discusses this concern.

### 1.4.2 Addressing possible objections

This subsection addresses three problems with the current proposal. A conceptual one concerns the question of Nanosyntax-style decomposition being compatible with inner workings of modern Distributed Morphology. An empirical question concerns possible allomorphy systems predicted by the current proposal.

#### 1.4.2.1 Nanosyntax-style decomposition and DM

It is not an innocent move to introduce parts of Nanosyntactic machinery into a Distributed Morphology-type analysis as proposed in the previous subsection. The problem concerns the terminal-centricity of classic Distributed Morphology: VI rules apply to **terminals in context**. However, it is the ideal Distributed Morphology that works like this since the need spelling out parts bigger and smaller than terminals was recognized early on, which has lead to the introduction of Fission and Fusion (Halle & Marantz (1993)).

Fusion is a theoretical tool to achieve cumulative exponence (Matthews (1972)), a situation when a single morpheme realizes features present on different heads (for example, case and number in various Indo-European languages), which is the core property of non-terminal spell-out. Take, for example, Latin noun *dominus* 'master'. Its accusative singular form is *domin-um* and its accusative plural form is *domin-o:s*. Clearly, *-o:s* spells out number and case together. Assuming that number and case are features of different syntactic heads, K and Num respectively, this example requires non-terminal spell-out.

Fission is an operation that achieves the opposite of Fusion. It splits features of the single head in order to realize them independently. For example, the overt case containment (cf. Caha (2009)) can be analyzed via Fission. An example comes from West Tocharian, where accusative plural of nouns 'horse' and 'man' is *yakweṃ* and *eṅkweṃ*, respectively, while genitive plural of these nouns is *yakweṃ-ts* and *eṅkweṃ-ts*, respectively. Assuming that both genitive and accusative are feature of K head (cf. Levin (2015) among others), analysing *-ts* as realizing the genitive feature requires Fission.

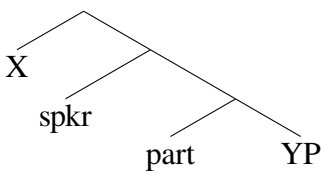
My point is, if DM literature acknowledges the need to spell-out sub-terminals (via Fission), then the inclusion of decomposed feature-heads allows to eliminate Fission, but only if spell-out of non-terminals is independently necessary, which is shown by existence of the Fusion operation (or equivalent notions like Spanning, see Merchant (2015); Svenonius (2016) a.m.o.). I hope to have shown that introduction of Nanosyntax-style feature heads is not problematic for Vocabulary Insertion. However, there is another important part of DM architecture, which may be broken by the idea of feature-heads. Namely, the processes sensitive to the local syntactic contexts, like contextual allomorphy (Bobaljik (2000); Bonet & Harbour (2012)). The next subsection discusses the interaction of our proposal with allomorphy.

#### 1.4.2.2 Contextual allomorphy and locality-breaking heads

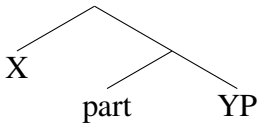
The core intuition behind the current proposal was that additional privative features may break the locality necessary for allomorphy. In this part of the paper, I want to explicitly mention the morphological phenomena that may be counterexamples to such logic. Such phenomena should follow the blueprint given in (13). Possible contenders are case allomorphy in personal pronouns and possessed nouns in languages with possessive morphology.

(13) Person feature heads and contextual allomorphy

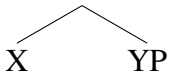
a. First person: spkr and part intervene



b. Second person: part intervene




c. Third person: nothing intervenes




The proposed system predicts an asymmetry between outward- and inward-sensitive allomorphy with respect to person. Outward sensitive morphology should behave the same as in the system where person features reside on a single head: first-third person syncretism is impossible, everything else is fine, as shown in (14). For inward-sensitive allomorphy, on the other hand, the proposed system makes substantially different predictions. Inward-sensitive allomorphy is predicted to allow an ABA pattern, the first-third person syncretism. Note also that the possible allomorphy patterns are dependent on the elsewhere status of some allomorphs.

(14) Possible outward-sensitive allomorphy patterns

a. Same form for all persons (AAA):
   (i) Y ↔ *α*
b. First-second person syncretism (ABB)
   (i) Y ↔ *β* / __part]
   (ii) Y ↔ *α*
c. Second-third person syncretism (AAB)
   (i) Y ↔ *γ* / __part] spkr]
   (ii) Y ↔ *α*
d. Three-way allomorph distinction (ABC)
   (i) Y ↔ *γ* / __part] spkr]
   (ii) Y ↔ *β* / __part]
   (iii) Y ↔ *α*
e. ABA in outward-sensitive allomorphy wrt. person is predicted to be impossible

(15) Possible inward-sensitive allomorphy patterns

a. Same form for all persons (AAA):
   (i) Y ↔ *α*
b. First-second person syncretism (ABB)
   (i) X ↔ *β* / [Y __
   (ii) X ↔ *α*
c. Second-third person syncretism (AAB)
   (i) X ↔ *β* / [spkr __
   (ii) X ↔ *α*
d. Three-way allomorph distinction (ABC)
   (i) Y ↔ *γ* / [spkr __
   (ii) Y ↔ *β* / [part __
   (iii) . Y ↔ *α*
e. First-third person syncretism (ABA)

(i) X ↔ $\beta$ / [part __
(ii) X ↔ $\alpha$

The question is then, is this a desirable result? I argue it is and it comes handy when discussing Germanic agreement (I will limit the discussion to German). Both regular and irregular verbs in German exhibit first person plural and third person plural syncretism, highlighted by grey colour in the tables below.

(16) Person-number agreement in German regular verb *rauchen* 'to smoke'

| | sg | pl |
|---|---|---|
| 1 | rauch-e | rauch-en |
| 2 | rauch-st | rauch-t |
| 3 | rauch-t | rauch-en |

(17) Person-number agreement irregular verb *sein* 'to be'

| | sg | pl |
|---|---|---|
| 1 | bi-n | sind |
| 2 | bi-st | seid |
| 3 | ist | sind |

If we assume that the person containment structures proposed here are found in verbal agreement as well, we have an apparent ABA pattern, which should be ruled out. A possible answer is to argue that there is cross-linguistic variation wrt. encoding of persons. Some languages may employ a distinctive addr feature for the second person. That is definitely possible, since there are syntactic phenomena sensitive to the second person only. Such examples are Nez Perce complementizer agreement (Deal (2021)) and you-first patterns of PCC apparently found in some Quechua dialects (Myler (2017)). Presence of a distinctive second person feature has been argued to be necessary for Germanic inflection before, for example, by Frampton (2002). However, introduction of an additional feature (hence, an additional head) is always problematic since its status is unclear. If addr in in UG, why is it not ubiquitous?

For this reason, I tentatively propose another analysis, which builds upon our idea that there is no ABA for inward-sensitive allomorphy. The idea is simple: the plural agreement markers are actually realization of a pl head (Harbour (2011); Caha (2022)). Additionally, I assume, following Preminger (2014), that number agreement is structurally higher than person agreement, making the person-conditioned number allomorphy inward-sensitive. The VI rules are given in (18).

(18) VI rules for German plural agreement in regular verbs

a. pl ↔ -t / [part __
b. pl ↔ -en
c. spkr/part ↔ ∅

However, this solution does not straightforwardly generalize to the irregular verb *sein* since it involves stem allomorphy as well. However, loss of generalization for a single verb does not appear to be fatal. Still, I want to emphasize that this sketch is not intended as a serious competitor to existing analyses of Germanic first-third person syncretism in verbal inflection. Instead, I want

to point out that this logic allows a first-third syncretism in absence of an additional addr feature with implication that all existing cases of first-third person syncretism are cases of inward-sensitive allomorphy. This remains to be explored.

### 1.4.3 Summing up the proposal

In this section, I have proposed that splitting privative features onto different heads can solve the puzzle of third person-sensitive allomorphy in Kumyk and Balkar. Then, I have addressed two question regarding the proposal: the conceptual coherency of importing a Nanosyntax-inspired structural decomposition into a DM-style system and the empirical predictions regarding the possible allomorphy types that the proposed system makes. A fairly strong prediction has been recognized: all first-third person syncretisms should involve or can be analysed as inward-sensitive allomorphy. I leave this question for further research.

## 1.5 Conclusion

This chapter has discussed an example of a morphological process that applies to third person but does not apply to second and first person: accusative case allomorphy in Kumyk and Balkar. The allomorphy is even more interesting given that the third person form cannot be considered an elsewhere variant given that un-posessed nouns are combined with the same accusative affix as first and second person possessives. If one assumes privative feature systems in the spirit of Harley & Ritter (2002), this is a problem given that any rule, syntactic or morphological, that applies to third person should apply to second and first person. I have suggested that this problem may be circumvented by encoding privative systems in syntax and accepting mainstream conception of locality for allomorphy. It may be the case that this general approach may be extended to other cases of reference to the 'unmarked' in morphology: as in already mentioned example of English agreement, as well as in Hiaki verbal suppletion discussed in Harley (2014). Additionally, the system allows analysing first-third person syncretisms without resorting to postulating an addr feature. Due to being able to address some long-standing problems for privative feature systems in morphology (but not all, of course), the ideas expressed in this contribution appear promising.

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