Caha, Pavel

GEN.SG = NOM.PL: A mystery solved?

Linguistica Brunensia. 2016, vol. 64, iss. 1, pp. 25-40

ISSN 1803-7410 (print); ISSN 2336-4440 (online)

Stable URL (handle): https://hdl.handle.net/11222.digilib/135448
Access Date: 18. 02. 2024
Version: 20220831

Pavel Caha

GEN.SG = NOM.PL: A MYSTERY SOLVED?

Abstract

This paper proposes an explanation for the identity of form between GEN.SG and NOM.PL. The paper first shows that the homonymy is attested in Czech as well as a number of other languages. Because of the nature of the categories involved, the homonymy is interesting for theories of syncretism. Specifically, the two terms of syncretism do not form a natural class on any dimension (SG vs. PL and NOM vs. GEN). The main question that arises in this context is whether syncretism can target any two arbitrary cases, or whether there is some deeper explanation as to why exactly these two cases are expressed the same. Working in the framework of Nanosyntax, I explain the syncretism by proposing that the formation of plural involves a silent noun (GROUP), which requires a genitive case on its complement. I argue that the complement of the noun GROUP agrees with the head and represents thus a special case of an agreeing genitive construction. The plural morpheme itself then corresponds to a portmanteau spell out of the genitive plus the agreement. Additional evidence for bi-nominal plurals is provided from unrelated phenomena in unrelated languages, such as plural marking in the Cushitic language Bayso and in Mauritian Creole,where, as I argue, the plural marker itself is an overt incarnation of the noun that is silent in Czech.

Keywords

Case; Syncretism; Plural; Nanosyntax.

1. Introduction

This paper looks at an interesting instance of syncretism between GEN.SG and NOM. PL. In Czech, the homophony holds for all feminine nouns, and a good part of neuters too. It is much rarer (though attested) in the masculine gender. I give a couple of examples in Tab. 1. The sample of the paradigms illustrates the homophony for as many allomorphs as possible.

Tab. 1. Czech declension (partial)

	woman, sg.	**woman, pl.**	**song, sg.**	**song, pl.**	**bone, sg.**	**bone, pl.**	**car, sg.**	**car, pl.**
NOM	*žen-a*	*žen-y*	*píseň-ø*	*písn-ě*	*kost-ø*	*kost-i*	*aut-o*	*aut-a*
ACC	*žen-u*	*žen-y*	*píseň-ø*	*písn-ě*	*kost-ø*	*kost-i*	*aut-o*	*aut-a*
GEN	*žen-y*	*žen-ø*	*písn-ě*	*písn-í*	*kost-i*	*kost-í*	*aut-a*	*aut-ø*
LOC	*žen-ě*	*žen-ách*	*písn-i*	*písn-ích*	*kost-i*	*kost-ech*	*aut-u*	*aut-ům*
DAT	*žen-ě*	*žen-ám*	*písn-i*	*písn-ím*	*kost-i*	*kost-em*	*aut-u*	*aut-ům*
INS	*žen-ou*	*žen-ama*	*písn-í*	*písn-ěma*	*kost-í*	*kost-ma*	*aut-em*	*aut-ama*

The fact that the syncretism occurs across various paradigms, and that it is replicated for various markers (*-y*, *-ě*, *-i*, *-a*) makes it a good candidate for a pattern that is systematic, and reveals something important about the nature of the categories involved. The impression is strengthened by the observation that the same syncretism is replicated across various languages. Within Indo-European languages, one may find it for instance in Lithuanian, Romanian, Latin, Albanian or Old Irish – to give an indication of the spread (both geographical and temporal).

Even though the syncretism does not seem widely attested outside of Indo-European (cf. Wunderlich 2004), Skolt Saami (Ugro-Finnic) provides one of its most robust illustrations: the syncretism holds for all nouns in the language (two sample paradigms below).

Tab. 2. Skolt Saami declension (partial) (Feist 2010, 145, 152)

	hole, sg.	**hole, pl.**	**bee, sg.**	**bee, pl.**
NOM	*kåå'pp*	***kåå'v***	*puu'ttes*	***pottaz***
ACC	*kåå'v*	*koo'vid*	*pottaz*	*pottsid*
GEN	***kåå'v***	*koo'vi*	***pottaz***	*pottsi*

However, the formal evidence that GEN.SG and NOM.PL form a class relevant for morphological marking contradicts the intuition that there are no other grounds for it to be so. Such an intuition is supported by several observations: first, there is little reason to think that in any of these languages, NOM-GEN syncretism has any significance within any given number. Second, there is also little reason to think that SG-PL has any significance within a particular case (in these languages). And lastly, the meaning of the two categories does not suggest any commonalities (though see Manzini – Savoia 2011).

Because of these three reasons, Baerman et al. (2002) include GEN.SG-NOM.PL syncretism into a category where "[f]ew would dispute that these patterns have come about by chance as a result of independent phonological developments,

and [...] no Gesamtbedeutung should be sought." Wunderlich (2004) says that GEN.SG = NOM.PL is "an accidental syncretism, caused by reasons other than underspecification[. It] can be captured by the metageneralization that allows affixes to have the information <(+hr)N ∨ +pl>," a simple disjunctive statement.[1] Yet other researchers suggest that it is exactly the "contradictory" meaning of the two categories what makes it possible for the syncretism to occur (the so called 'polarity,' see Béjar – Hall 1999, Lahne 2007, Wunderlich 2012).

An additional concern arises for approaches proposing that syncretism is restricted by contiguity.[2] The essence of such proposals is the idea that there is a geometrical arrangement of cells such that only contiguous regions may be targeted by syncretism. For such theories, the syncretism is problematic also for the reason that it is (apparently) non-contiguous.

Considerations presented in the preceding paragraphs could be summed up as follows: the homophony between GEN.SG and NOM.PL is systematic in a number of languages, but the two terms do not seem to have common meaning, and they are not contiguous in a paradigm. If this was true, the homophony would provide a good case in favor of a framework which imposes no restrictions on the terms of syncretism. For example, within the framework of Paradigm Morphology, Stump (2001) provides an easy way to state the facts using rules of referral; devices that link an exponent of one of the cells to the exponent found in another cell. In this particular case (using comparable Russian examples), Stump argues that such rules may go both ways, i.e., from GEN.SG to NOM.PL or the other way, yielding what he refers to as a bi-directional syncretism.

In this theoretical context, the current paper proposes an account of the syncretism that (i) provides a good reason why GEN.SG and NOM.PL form a natural class; and (ii) preserves a contiguity restriction on such a relation.

2. Nanosyntax

Let me start by introducing one specific framework where contiguity can be implemented, namely Nanosyntax (see Starke 2009, 2011). The particular way Nanosyntax encodes contiguity is in terms of 'cumulative' feature decomposition (Caha 2009, 2013). In particular, if there is a linear arrangement (say NOM–ACC–GEN) where only contiguous regions exhibit syncretism, the framework encodes this by the decomposition shown in (1a-c):

1 (+hr)N roughly means that the morpheme may express subject-like elements in nominal environment.

2 See, e.g., McCreight – Chvany (1991), Plank (1991), Johnston (1996), Wiese (2003), Trosterud (2004), Caha (2009), Starke (2009), Pantcheva (2010, 2011), Taraldsen (2010), Bobaljik (2012), Vangsnes (2013) for relevant discussion.

(1) a. NOM = [X]
b. ACC = [X, Y]
c. GEN = [X, Y, Z]

With such a decomposition, it is quite easy to see that there is no way to state a syncretism between [X,Y,Z] and [X] to the exclusion of [X,Y]. This is because [X,Y] is 'more similar' to [X] than [X,Y,Z]; hence, in case [X,Y,Z] and [X,Y] are distinct, [X] is expected to pattern with [X,Y], rather than [X,Y,Z].

With the basic idea in place, let me give some more details about how insertion works in Nanosyntax as this will become relevant later. In particular, Nanosyntax is a realizational theory of morphology, which means that lexical entries are construed as rules which take the syntactic structure as their input, and produce phonological representations as their output. Whether an entry applies in a given case is determined by the so called Superset Principle (2).

(2) The Superset Principle (STARKE 2009)
A lexical entry is inserted into a node iff it contains that node.

In accordance with (2), the entry for a genitive marker is as given in (3a). Note, however, that the 'genitive' marker may also be inserted in ACC [X,Y] and NOM [X], due to The Superset Principle. That is because the rule allows insertion in all cases which are contained in the entry (3a). The consequence is that an entry such as (3a) may be inserted in GEN, ACC and NOM.

(3) a. GEN ⇔ [X, Y, Z]
b. NOM ⇔ [X]

Whether it actually surfaces in those cases depends on whether there are any competitors, and what the competitors are. For example, suppose there is the additional entry (3b). This entry may not apply in GEN and ACC (it does not contain those features). Therefore, these cases are spelled out using the rule (3a). However, in the NOM, both the entry (3a) and (3b) may apply. A competition arises with the consequence that the more specific entry (i.e., (3b)) wins, and it is chosen as the ultimate spell out of NOM.

In addition to cumulative decomposition, Nanosyntax proposes that each of the features is a separate head in the syntactic tree, with the heads ordered along a hierarchy called the functional sequence. Adding the hypothesized structure, the representation (1c) looks like (4).

The series of the non-terminal projections (the functional sequence) corresponds to the geometric arrangement of purely spatial paradigm-contiguity accounts.

(4) $[_{\text{GEN}}\ Z\ [_{\text{ACC}}\ Y\ [_{\text{NOM}}\ X\ ]]]$

Summing up the discussion, the following two statements characterize the approach to syncretism adopted in Nanosyntax:

(5) Syncretism in Nanosyntax: two rules of thumb
   a. If Cell 1 = Cell 2, then either features of C1 contain f(C2), or the other way round
   b. Each feature is a head in the tree

The decision to model syncretism as a specific instance of structural containment will become relevant, because such representations allow for an independent verification by morphological containment relations. For example, in many languages, INS is coded the same as COM (STOLZ ET AL. 2009). Following (5a,b), this means that either (6a) or (6b) holds:

(6) a. COM = [X [INS]]
   b. INS = [X [COM]]

It turns out that if there is a morphological containment relation between INS and COM, then com always includes ins as its component part (STOLZ ET AL. 2009, 607). From this, we may conclude that (6a) is correct. Repeating the crucial message: Nanosyntax analyzes syncretism as a specific manifestation of structural containment.

3. GEN.SG = NOM.PL in Nanosyntax

Applying the general guidelines (5a,b) to the case we are interested in here, the representation we arrive at is shown in (7). Here, NOM.PL is derived from GEN.SG by adding a feature X:

(7) $[_{\text{NOM.PL}}\ X\ [_{\text{GEN.SG}}]]$

There is one thing right about this, and (at least) one thing wrong. The right thing is that there are languages (North Saami, Estonian) where such a containment relation is apparent on the surface. Table 3 shows this for North Saami, where NOM.PL is systematically based on the form of the GEN.SG. by adding *-t*. This observation then falls in line with the general expectation that syncretism and containment go hand in hand for a given relation (but in different languages).

Tab. 3. North Saami declension (Nickel 1990)

	house, sg.	**house, pl.**	**reindeer, sg.**	**reindeer, pl.**
NOM	*viessu*	***viesu**-t*	*boazu*	***bohcco**-t*
ACC	*viesu*	*viesu-id*	*bohcco*	*bohccu-id*
GEN	***viesu***	*viesu-id*	***bohcco***	*bohccu-id*
ILL	*vissui*	*viesu-ide*	*bohccui*	*bohccu-ide*
LOC	*viesus*	*viesu-in*	*bohccos*	*bohccu-in*
COM	*viesuin*	*viesu-iguin*	*bohccuin*	*bohccu-iguin*
ESS	*viessun*	—	*boazun*	—

The 'wrong' thing about the proposal in (7) is that it leads to a problem with recursion. I show this in (8). The reasoning leading to the tree is this: the feature by which ACC.SG is 'derived from' NOM.SG (the boldfaced Y in (8)) has to be the same as the feature by which ACC.PL is derived from NOM.PL (the Y in italics). And similarly for other cases; hence the picture shown in (8), where there is a recursion of all the three case features.

(8) $[_{\text{GEN.SG}}\ Z\ [_{\text{ACC.SG}}\ Y\ [_{\text{NOM.PL}}\ X\ [_{\text{GEN.SG}}\ Z\ [_{\text{ACC.SG}}\ \mathbf{Y}\ [_{\text{NOM.SG}}\ X\ ]]]]]]$

However, (8) is not a legitimate sequence of categories. It has been independently established in syntactic research that the functional sequence is an irreflexive ordering (A may never dominate A; see Cinque 1999, Starke 2004). This principle is violated in (8) (where the projection of *Y* dominates **Y**). Hence, it seems that an attempt to encode the syncretism in Nanosyntax leads to a contradiction with its own assumptions; as Manzini – Savoia (2011, 115) observe, "the syncretism of [...] nominative plural and genitive singular [...] constitutes a problem for the Nanosyntax model, which by construction is incapable of capturing it."

The discussion thus leaves us with two relevant conclusions. First, it seems that the idea of containment between GEN.SG and NOM.PL is empirically on the right track (because of North Saami and its kin). What we need to do is to remove the recursion problem.

The following proposal provides a solution to the puzzle: Plurals in Czech (and elsewhere) are bi-nominal structures, where the genitive singular is an argument of a silent quantity noun, represented in the tree below by the item GROUP. The presence of a second noun is crucial; the second *noun* provides the explanation for recursion.

(9) $[_{\text{GEN.SG}}\ Z\ [_{\text{ACC.SG}}\ Y\ [_{\text{NOM.PL}}\ X\ [_{\text{NP}}\ \text{GROUP}\ [_{\text{GEN.SG}}\ Z\ [_{\text{ACC.SG}}\ Y\ [_{\text{NOM.SG}}\ X\ ]]]]]]]$

While solving one problem, it may seem that a number of other problems get created. All the problems stem from the straightforward expectation that the whole structure will behave like a quantity phrase of the sort 'majority of voter', except that the head noun is silent. This expectation has two empirically observable consequences. (i) The dependent noun is going to be in the genitive no matter the syntactic environment, because it is the silent head noun which bears the various case affixes appropriate for the role of the whole phrase. (ii) All nouns will be subject to GEN.SG = NOM.PL syncretism, because they are all possessors of the silent head.

Both of these expectations are wrong. As highlighted at the start, only a subset of Czech paradigms show the GEN.SG = NOM.PL homophony. I give an example of one such paradigm below in (Tab. 4) (see 'castl'), side-by side with a 'well-behaved' paradigm ('machine'). The plural paradigms also illustrate the incorrectness of the expectation that the plural noun is not going to change depending on its syntactic environment: no matter whether the NOM.PL is identical to GEN.SG or not, the noun obviously reflects features of its larger syntactic environment (as opposed to expressing only the possessive relationship).

Tab. 4. Czech masculine declension

	machine, sg.	**machine, pl.**	**castl, sg.**	**castl, pl.**
NOM	*stroj-ø*	*stroj-e*	*hrad-ø*	*hrad-y*
ACC	*stroj-ø*	*stroj-e*	*hrad-ø*	*hrad-y*
GEN	*stroj-e*	*stroj-ů*	*hrad-u*	*hrad-ů*
LOC	*stroj-i*	*stroj-ích*	*hrad-u*	*hrad-ech*
INS	*stroj-em*	*stroj-ema*	*hrad-em*	*hrad-ama*

Both problems disappear if we weaken the expectation that the structure with a silent noun GROUP in it will behave *exactly* like ordinary possessive structures. Specifically, I propose that the noun GROUP gives rise to a specific 'agreeing possessor' construction, sometimes called Suffixaufnahme (Plank 1995). This is a term used for a construction where the GEN marking on a possessor is followed by an agreement marker, as schematically illustrated in (10a). So the proposal is that the genitive dependent of GROUP looks like in (10a), while other genitives lack the agreement marker. (Such a variation in possessor marking is independently found.)

In some languages, the genitive and the agreement features are expressed by a single portmanteau. The phenomenon is illustrated by the examples in (10b,c) from Bezhta (Plank 1995, 71). In (10b), we see that the GEN ending for possessors whose head is in the nominative case, is *-s*. When the head noun is in an oblique case (DAT in (10c)), the genitive marker is *-la*.

(10) a. POSS-gen-agr b. [*abo-s*] *is* c. [*abo-la*] *is-t'i-l*
father-gen1 brother father-gen2 brother-obl-dat
'father's brother' 'to father's brother'

Putting these two observations together, we obtain the relevant syntax that is manifested in the Czech NOM.PL (and analogous examples). Specifically, I propose that the possessor of the silent noun GROUP agrees with the head, just like the possessors do in Bezhta. The syntactic tree reflecting the proposal is given in (11). In the tree, the genitive comes adorned with an additional constituent bearing agreement features (boldfaced).

(11) $[_{\text{GEN.SG}}$ Z $[_{\text{ACC.SG}}$ Y $[_{\text{NOM.PL}}$ X $[_{\text{NP}}$ GROUP [[**AGR**] $[_{\text{GEN.SG}}$ Z $[_{\text{ACC.SG}}$ Y $[_{\text{NOM.SG}}$ X]]]]]]]]

The proposal in (11) solves both of the problems we have started from. The reason why NOM.PL (i.e., a type of a possessor) does not stay invariantly genitive throughout the paradigm is because of the presence of Agr. Agr tracks the case of the head, and represents it on the possessor. As a consequence, GEN.SG and NOM.PL are not exactly alike: the formula is NOM.PL = GEN.SG+AGR. This explains the cases where NOM.PL is distinct from GEN.SG. To see how things work in detail, consider the lexical specification of a NOM.PL marker in (12):

(12) NOM.PL ⇔ [AGR(NOM) [GEN]]

As highlighted above, in Nanosyntax, any entry may spell out structures that correspond to their full specification, or structures that are a subset of the lexical specification (recall The Superset Principle (2)). The NOM.PL=GEN.SG homophony then arises when an entry such as (2) is allowed to make use of this possibility, and spell out a structure that only corresponds to the GEN part. This happens in paradigms in which there is no 'better' competitor for the embedded structure. In case there is, this competitor wins, and the NOM.PL entry is restricted to plural only.

At this point, we are done accounting for the GEN.SG=NOM.PL homophony. The proposal says that the homophony reflects the syntactic role of the noun: it is a possessor of a silent noun GROUP. In addition, the possessor agrees in case with the head noun GROUP, and this agreement is represented on the possessor in a separate constituent, generated on its top. The actual morphology spells out both the agreement and the GEN at the same time, which explains (i) why the marking of the possessor does not stay constant regardless of the case assigned to the head, (ii) why sometimes NOM.PL is built on top of GEN.SG, (iii) the possibility for homophony follows from the proposed containment of GEN.SG in NOM.PL and the Superset Principle (2).

4. Where GEN.SG=NOM.PL systematically fails

The remainder of this paper is dedicated to showing that this proposal directly accounts for additional facts, not captured by the alternatives. In this section, I show that in a number of languages, the GEN.SG=NOM.PL homophony fails to apply to pronouns and demonstrative determiners. I show how this fact follows from the hypothesis developed here, namely that NOM.PL involves a possessive structure with a silent head GROUP. Systematic restrictions like these, however, come as a surprise in approaches where the identity between GEN.SG and NOM.PL can be stipulated by a simple rule (STUMP 2001) or a disjunctive statement (WUNDERLICH 2004). The discussion is thus intended to show that the current theory is not only more restrictive (preserves contiguity), it is also empirically superior to its alternatives. I start by introducing a set of facts from Mauritian Creole, which form the basis for further discussion.

In Mauritian Creole, there is a morpheme (*bann*) which has two major uses. In its first use, it means something like a 'group, community'. I show this below in (13a). In its second use, *bann* works as a plural marker. The example (13b) illustrates this.

(13) a. *Dan nou bann, maryaz pa fer sa kalitela,*
in our community marriage not do that way
'In our community, marriages aren't done that way' (GUILLEMIN 2011, 186)

b. *Bann frizider vid.*
pl fridge empty
'The fridges are empty.' (GUILLEMIN 2011, 190-1)

This is interesting for several reasons. First, it shows that it is possible for a 'group' type noun to function as a plural marker, an essential part of the current proposal. Two additional facts concerning *bann* and its syntax become relevant shortly. The first fact is that the demonstrative determiner *sa* occurs to the left of *bann*, see (14a). The second fact is that the plural of pronouns does not have *bann*. The examples in (14b) show that.

(14) a. *sa bann zom la*
this pl man sp
'these men' (GUILLEMIN 2011, 256)

b. 1: sg. *mo* — pl. *nu*
2: sg. *to* — pl. *u*
3: sg. *li* — pl. *zot*

This is probably related to the contrast between the plural of nouns and the plural of pronouns. While 'houses' can be considered a group of individuals of which the

predicate 'house' holds, the plural forms of pronouns cannot be construed that way. (*We* is not a group of individuals of which the predicate 'me' holds.) Regardless of whether this explanation is right or wrong, the absence of *bann* with pronouns is all that matters for the following discussion.

As highlighted above (see Tab. 2), Skolt Saami has GEN.SG=NOM.PL for all nouns. But there are two sets of expressions in the language where the syncretism does not occur. The first domain is in the realm of pronouns, see the left part of the table 5.

Tab. 5. Skolt Saami pronominal and demonstrative declension (partial) (Feist 2010, 251-2)

	1sg.	**1pl.**	**3sg.**	**3pl.**	**refl., sg.**	**refl., pl.**	**prox., sg.**	**prox., pl.**	**dist., sg.**	**dist., pl.**
NOM	*mon*	*mij*	*son*	*sij*	*jiõčč*	*jiijj*	*tät*	*täk*	*tut*	*tuk*
ACC	*muu*	*mi'jjid*	*suu*	*si'jjid*	*jiijâs*	*jiijjâz*	*tän*	*tīd*	*tun*	*tuid*
GEN	*muu*	*mij*	*suu*	*sij*	*jiijâs*	*jiijjâz*	*tän*	*täi*	*tun*	*tui*

This fact follows from the current account, coupled with the observation that pronominal plurals lack GROUP, as indicated by the Mauritian Creole data, see (14b). That is because GEN.SG = NOM.PL is actually caused by the presence of the silent noun GROUP; with the noun missing, the syncretism disappears.

The second domain where GEN.SG=NOM.PL fails to occur in Skolt Saami is in the domain of demonstrative determiners, see the second half of the table 5. The explanation emanates from the syntactic position of demonstratives in such structures, shown in (15) (recall (14a)):

(15) [**DEM** [**GROUP** [of α]]]

In particular, I assume that in this structure, an agreement relation is established with the closest noun. For the demonstrative, the closest noun is the silent GROUP. Therefore, the demonstrative reflects the features of the noun GROUP, rather than the features of its complement. (Agreement indicated by boldface.) As a consequence, the embedded genitive is not reflected on the demonstrative, and the syncretism fails.

Similar observations hold for Romanian. The table below shows the declension of the Romanian phrase 'a talented actress'. The shading indicates homophony between GEN.SG. and NOM.PL. Interestingly, the syncretism pertains only to the inflection of the noun and the adjective. The article is distinct across the two cases. Assuming a picture like that in (15) gives us a clear idea why this is so: the adjective and the noun are in the scope of the plural quantificational noun, and they are as-

signed genitive singular. The article is outside of the scope, and it is not subject to the assignment, or the homophony.

Tab. 6. Romanian (Cojocaru 2003)

	indef	actress	talented
NOM/ACC.SG.	*o*	*actriţ-ă*	*talentat- ă*
GEN/DAT.SG.	*unei*	*actriţ-e*	*talentat-e*
NOM/ACC.PL.	*nişte*	*actriţ-e*	*talentat-e*

To sum up: this section introduced the Mauritian Creole plural morpheme *bann*, homophonous with the noun 'group'. Interestingly, this morpheme is absent with pronouns. I suggested that its absence is the reason for the corresponding lack of homophony between GEN.SG and NOM.PL forms of Skolt Saami pronouns, a language where the homophony otherwise targets all nouns.

Another domain where the GEN.SG = NOM.PL homophony frequently disappears is on demonstrative determiners. The absence of GEN.SG = NOM.PL on these items presents evidence for the role of a silent noun in creating the homophony, because items outside of the scope of the silent noun fail to have it. In the next section, I follow this line of reasoning further, and I argue for the bi-nominal structure of plurals from the observable effects the GROUP noun may have on agreement.

5. How agreement reveals a bi-nominal recursive structure

The discussion is going to revolve around Bayso, a Cushitic language with an intriguing agreement system (Corbett – Hayward 1987). I argue that the peculiarities of the system may be understood under the hypothesis that its various plural markers are nouns with an inherent gender. The best way to get to know the Bayso system is to look first at its pronouns; these are shown in the table below. The terms individual reference and multiple reference are self-explanatory; I follow Corbett – Hayward (1987) and use them instead of the common labels singular and plural for reasons that will become clear shortly. The pronouns *úsu*, *ése* and *íso* trigger each a particular agreement form of the verb; I will call these masc, fem and plural.

Tab. 7. Bayso pronouns (Corbett and Hayward 1987, 12)

	individual reference	**multiple reference**
MASC	*úsu*	*íso*
FEM	*ése*	*íso*

The nouns in the language have a basic form (a form without affixes). This form can refer to a single individual, as well as a whole group. The absolute majority of these basic (number-less) forms falls into two classes: masculine or feminine. I illustrate the two classes below with examples from Corbett (2000, 181f.).

(16) a. *lúban* *hudure* b. *kimbír* *hudurte*
lion slept.masc bird slept.fem
'Lion(s) slept.' 'Bird(s) slept.'

To create forms with singular reference, the suffix *-(ti)ti* is used. The suffix does not change class membership, so we get *lúban-titi hudure* 'a lion slept' and *kimbír-titi hudurte* 'a bird slept'. The surprising thing is that in their multiple reference form, created by the suffixation of *jool*, both forms trigger masculine agreement, rather than plural agreement. We know that the predicate is in the masc form, because the plural agreement (as revealed by the multiple reference pronoun) would be different (*hudureene*).

(17) a. *lúban-jool* *hudure* b. *kimbir-jool* *hudure*
lion-multi slept.masc bird-multi slept.masc
'The lions slept.' 'The birds slept.'

In order to encode these facts, we have to somehow (i) specify each root for the gender it has in its base form (ii) specify the multiple reference affix *jool* as masculine. Doing so reveals a 'recursion' problem: in the multiple reference forms, gender is represented twice:

(18) a. [[lúban.masc] jool.masc] b. [[kimbir.fem] jool.masc]

The complexity of the system does not stop here. When it comes to the formation of the multiple reference form, there are two additional minor classes of nouns. One of them consists of nouns whose multiple reference forms actually do trigger plural agreement. Corbett – Hayward (1987, 13) give an exhaustive list of these nouns (there are 7 of them), and they include examples such as *baal* 'feather' – *baal-allo* 'feathers' or *fer* 'toe' – *fer-erroo* 'toes'. Corbett and Hayward note that their exceptional behavior pertaining to agreement correlates with the fact that they lack the suffix *-jool*. This supports the hypothesis that the regular suffix *jool* is indeed the source of the masculine agreement, and that by triggering such an agreement, the suffix falls in the same class as nouns.

Another group of exceptions is presented by nouns which take feminine agreement in their multiple reference form. There are four such items, and they include

examples such as *aar* 'ox' – *aar-aar* 'oxen', or *abbi* 'brother' – *abbi-laal* 'brothers'. These nouns, once again, lack the regular suffix *-jool*, confirming the connection between the suffix involved, and the agreement form taken.

These facts taken together provide interesting evidence for the nominal nature of the plural affixes. It seems that the agreement system is not sensitive to the meaning of the forms, but rather to the particular affix that is used in order to derive multiple reference forms. The way these affixes govern gender agreement is arbitrary, and therefore, reminiscent of nouns, whose gender specification is known to be partly arbitrary in the same sense. This in turn provides evidence for the nominal status of the plural affixes. In general, it seems that the bi-nominal structure I offer here has effects that reach beyond the GEN.SG=NOM.PL homophony, providing independent support for the original idea.

6. Summary and conclusions

The paper started from the observation that GEN.SG=NOM.PL raises non-trivial challenges for theories of syncretism. I then went on to show how syncretism is treated in Nanosyntax, and showed that when we attempt to account for this syncretism in a purely mechanical way, a recursion problem arises. I took this result at face value, and proposed that plurals in the languages with the syncretism and elsewhere are bi-nominal recursive structures. The solution to the recursion problem is thus simple: we get effects of recursion because there in fact is a real recursion.

Later on, I have shown that the recursion problem arises quite independently in Bayso, and the same solution has been applied. The beneficial consequences of the solution have been explored in the paper. First, the solution allows us to account for the syncretism in a theory which is restrictive in the sense that it preserves the contiguity restriction on syncretism (non-contiguous syncretisms cannot be represented in such a theory). Second, I argued that the GEN.SG=NOM.PL syncretism is only one out of many possible manifestations of a bi-nominal structure.

First, the proposal directly accounts for languages where nom.pl is morphologically based on GEN.SG (North Saami, Estonian). Second, the bi-nominal structure is obvious in languages where plurals are formed using a morpheme homophonous to a noun 'group' (Mauritian Creole). Third, building on the observation that Mauritian Creole pronouns lack the 'group' morpheme, an explanation is provided for the fact that GEN.SG=NOM.PL fails to arise for pronouns (Skolt Saami and elsewhere). Fourth, the fact that the homophony often disappears on demonstrative determiners is accounted for by the proposal that demonstratives may agree with the 'group' noun. Finally, the proposal allows us to understand apparently 'crazy' agreement systems where each plural (i.e., multiple reference) form belongs to an agreement class of its own.

If correct, the account allows us to draw some general conclusions concerning contiguity. In particular, it seems that evaluating the correctness of the hypothesis relies on a pre-established arrangement of grammatical space. Traditional conceptions of this space may be too simplistic: singular and plural may not be parallel columns. Instead, I have argued that the structure of plural is more complicated than standardly believed, with the consequence that the representation of gen.sg forms a direct input for NOM.PL. Last but not least, if it is correct that pronouns may lack the noun GROUP, then the grammatical space against which contiguity is evaluated may be different for nouns and pronouns. That is because for pronouns, GEN.SG does not enter the formation of NOM.PL.

REFERENCES

Baerman, Matthew – Brown, Dunstan – Corbett, Greville G. 2002. Case syncretism in and out of Indo-European. In: CLS37: *The Main Session. Papers from the 37th Meeting of the Chicago Linguistic Society*. Chicago: Chicago Linguistic Society, pp. 15–28.

Béjar, Susana – Currue Hall, Daniel. 1999. Marking markedness: The underlying order of diagonal syncretisms. In: *Proceedings of the 1999 Eastern States Conference on Linguistics*. Ithaca: Cornell University Press, pp. 1–12.

Bobaljik, Jonathan. 2012. *Universals in Comparative Morphology: Suppletion, superlatives, and the structure of words*. Cambridge, Mass: MIT Press.

Caha, Pavel. 2009. *The Nanosyntax of Case*. Ph.D. thesis. CASTL, University of Tromsø.

Caha, Pavel. 2013. Explaining the structure of case paradigms through the mechanisms of Nanosyntax. *Natural Language and Linguistic Theory*. 31(4), pp. 1015–1066.

Cinque, Guglielmo. 1999. *Adverbs and Functional Heads: A Cross-Linguistic Perspective*. New York: Oxford University Press.

Cojocaru, Dana. 2003. *Romanian grammar* [online]. SEELRC [29.10.2015]. Available at: www.seelrc.org/projects/grammars.ptml.

Corbett, Greville. 2000. *Number*. Cambridge: Cambridge University Press.

Corbett, Greville – Hayward, Richard. 1987. Gender and number in Bayso. *Lingua*. 73, pp. 1–28.

Feist, Timothy. 2010. *A grammar of Skolt Saami*. Ph.D. thesis. University of Manchester.

Guillemin, Diana. 2011. *The syntax and semantics of a determiner system: a case study of Mauritian creole*. Amsterdam: John Benjamins.

Johnston, Jason Clift. 1996. *Systematic Homonymy and the Structure of Morphological Categories. Some Lessons from Paradigm Geometry*. Ph.D. thesis. University of Sydney.

Lahne, Antje. 2007. On deriving polarity effects. In: Opitz, Andreas – Trommer, Jochen, eds. *1-2-many. One-to-many relations in grammar*. Leipzig: University of Leipzig, pp.1–22.

Manzini, Rita M. – Savoia, Leonardo M. 2011. Reducing 'case' to denotational primitives. Nominal inflections in Albanian. *Linguistic Variation*. 11(1), pp. 76–120.

McCreight, Katherine – Chvany, Catherine V. 1991. Geometric representation of paradigms in a modular theory of grammar. In: Plank, Frans, ed. *Paradigms: The Economy of Inflection*. Berlin, New York: Mouton de Gruyter, pp. 91–112.

Nickel, Klaus Peter. 1990. *Samisk grammatikk*. Oslo: Universitetsforlaget.

Pantcheva, Marina. 2010. The syntactic structure of locations, goals, and sources. *Linguitics*. 48, pp. 1043–1081.

Pantcheva, Marina. 2011. *Decomposing Path. The nanosyntax of directional expressions*. Ph.D. thesis. CASTL, University of Tromsø.

Plank, Frans. 1991. Rasmus Rask's dilemma. In: *Paradigms: The Economy of Inflection*. Berlin: Mouton de Gruyter, pp. 161–196.

Plank, Frans. 1995. (Re-)introducing suffixaufnahme. In: Plank, Frans, ed. *Double Case: Agreement by Suffixaufnahme*. Oxford: Oxford University Press, pp. 3–112.

Starke, Michal. 2004. On the inexistence of specifiers and the nature of heads. In: Belletti, Adriana, ed. *Structures and Beyond: The Cartography of Syntactic Structures*. New York: Oxford University Press, pp. 252–268.

Starke, Michal. 2009. Nanosyntax. A short primer to a new approach to language. *Nordlyd*. 36, pp. 1–6.

Starke, Michal. 2011. *Towards elegant parameters: Language variation reduces to the size of lexically stored trees*. Ms., University of Tromsø.

Stolz, Thomas – Stroh, Cornelia – Urdze, Aina. 2006. *On Comitatives and Related Categories: A Typological Study with Special Focus on the Languages of Europe*. Berlin – New York: Mouton de Gruyter.

Stolz, Thomas – Stroh, Cornelia – Urdze, Aina. 2009. Varieties of comitative. In: Malchukov, Andrej – Spencer, Andrew, eds. *The Oxford Handbook of Case.* Oxford: Oxford University Press, pp. 601–608.

Stump, Gregory. 2001. *Inflectional Morphology: A Theory of Paradigm Structure*. Cambridge: Cambridge University Press.

Taraldsen, Tarald. 2010. The nanosyntax of Nguni noun class prefixes and concords. *Lingua*. 120(6), pp. 1522–1548.

Trosterud, Trond. 2004. Homonymy in the Uralic Two-Argument Agreement Paradigms. Ph.D. thesis. University of Tromsø.

Vangsnes, Øystein A. 2013. Syncretism and functional expansion in Germanic whexpressions. *Language Sciences*. 34, pp. 47–65.

Wiese, Bernd. 2003. Zur lateinischen Nominalflexion: Die Form-Funktions-Beziehung. Ms., IDS Mannheim.

Wunderlich, Dieter. 2004. Is there any need for the concept of directional syncretism? In: Müller, Gereon – Gunkel, Lutz – Zifonun, Gisela, eds. *Explorations in Nominal Inflection*. Berlin: Mouton de Gruyter, pp. 373–395.

Wunderlich, Dieter. 2012. Polarity and constraints on paradigmatic distinctness. In: Trommer, Jochen, ed. *The morphology and phonology of exponence*. Oxford: Oxford University Press, pp. 160–194.

Acknowledgements: This paper is for Petr. He got me interested in syntax some fifteen years ago, and he also helped me get a job in Brno just recently. There is not

much more one can wish for. Well, except perhaps one thing. Let the grant be over so we can go have a beer again.

Pavel Caha
Department of Czech Language
Faculty of Arts, Masaryk University
Arna Nováka 1, 602 00 Brno
Czech Republic
pcaha@mail.muni.cz