

# Number in the Yurakaré noun phrase\*

Rik van Gijn  
University of Nijmegen

## 1. Introduction

The category of number is often underestimated. In many languages, however, at closer inspection, it poses many difficulties. In Yurakaré — an unclassified language spoken in central Bolivia by approximately 2500 speakers — there is a basic opposition between a marked form =*w* and the absence of that marker. At first sight, it is not really clear what these two forms mean. They both seem to mean ‘singular’ in some contexts and ‘plural’ in others. In this paper I will try to come to an analysis with stable meanings for these two forms.

## 2. The problem

Consider the following data:

- |     |    |        |                 |         |        |                         |          |
|-----|----|--------|-----------------|---------|--------|-------------------------|----------|
| (1) | a. | shunñe | -Ø <sup>1</sup> | ‘man’   | shunñe | = <i>w</i> <sup>2</sup> | ‘men’    |
|     | b. | ewete  | = <i>w</i>      | ‘broom’ | ewete  | = <i>w</i>              | ‘brooms’ |
|     | c. | sibbë  | -Ø              | ‘house’ | sibbë  | -Ø                      | ‘houses’ |
|     | d. | tomete | = <i>w</i>      | ‘arrow’ | tomete | -Ø                      | ‘arrows’ |

In (1) we see all logical possibilities for the distribution patterns of -Ø and =*w*. Looking at these data, how can we establish the meaning of the enclitic =*w* versus its absence? The patterns of (1) are schematized in Table 1.

I will try to connect Table 1 with Table 2 below, which is Corbett’s (2000: 80) summary of Jackendoff’s (1991) classification of nominal semantic categories. I will argue for an analysis where the marker =*w* indicates [+internal structure], while its absence means [–internal structure] or ‘unspecified’. Boundedness is indicated on modifiers, as will become clear.

In Table 1, nouns of type I form the largest group, this is the ‘normal’ case.

Table 1. Patterns of marking singular and plural<sup>3</sup>

Type number	Example	Singular	Plural	Section
I	shunñe	-Ø	=w	3
II	ewete	=w	=w	4
III	sibbë	-Ø	-Ø	5
IV	tomete	=w	-Ø/=w <sup>4</sup>	6

Table 2. Semantic categories of noun phrase (Jackendoff 1991)

Feature values	Category	Yurakaré-category
+bounded, –internal structure	individuals	singulars
+bounded, +internal structure	groups	inherently plurals
–bounded, –internal structure	substances	inherently singulars
–bounded, +internal structure	aggregates	plurals

I will refer to these nouns as count nouns (cf. Section 3). I call the nouns of type II ‘inherently plural nouns’ (cf. Section 4) and nouns of type III ‘inherently singular nouns’ (cf. Section 5). Section 6, finally, deals with ‘hybrid’ nouns, that have some characteristics of type II nouns, and some of type III nouns.

3. Count nouns

Count nouns, by far the largest group, are obligatorily marked for plural with the enclitic =w. In terms of Jackendoff (1991): individuals [+bounded, –internal structure] when singular, aggregates [–bounded, +internal structure] when plural. As can be seen in example (2), nouns of this class can denote humans, non-human animates (all animates are in this group), or inanimates:

- (2) a. shunñe ‘man’      shunñe      =w      ‘men’  
b. dyaya ‘mosquito’      dyaya      =w      ‘mosquitos’  
c. pojore ‘canoe’      pojore      =w      ‘canoes’

Quantifying elements that imply a plurality obligatorily trigger the plural marker, as can be seen in the following examples:<sup>5</sup>

- (3) a. lëshie shunñe      =w      (\*lëshie shunñe)  
two man      =PL      two man  
‘two men’  
b. bëmë yee      =w      (\*bëmë yee)  
much/many woman      =PL      much/many woman  
‘many women’

When a noun phrase is plural, elements modifying the head noun can be marked for distributive or collective. Understanding this will facilitate our

understanding of some of the other phenomena that we will see. The collective marker *-ima* on a modifier indicates that the quality or quantity expressed by the modifier applies to the group as a bounded whole rather than to each member individually. The distributive marker *-uma* has exactly the opposite effect: it indicates that the quality or quantity expressed by the modifier applies to each member individually rather than to the group as a whole. These differences can be illustrated with the following examples:

- (4) a. palanta matat -ima =w  
banana big -COL =PL  
'a big bunch of bananas/\*big bananas'
- b. palanta matat -uma =w  
banana big -DST =PL  
'big bananas/\*a big bunch of bananas'

In example (4a), the marker *-ima* forces the interpretation of a bunch of bananas, while *-uma* in (4b) forces the interpretation where the bananas are viewed as separate entities. The marking of modifiers for collective or distributive is optional. In terms of the features of Jackendoff (1991), specified above, *-ima* adds boundedness to an aggregate, making it a group:

- |     |                                 |   |                                 |
|-----|---------------------------------|---|---------------------------------|
| (5) | aggregate                       | > | group                           |
|     | [−bounded, +internal structure] | > | [+bounded, +internal structure] |

We might hypothesize that =*w* indicates [+internal structure], -*ima* then indicates [+bounded], and -*uma* is an overt marker for [–bounded]. I will come back to this hypothesis below in Section 5.

#### 4. Inherently plural nouns

There are a number of nouns that always carry the plural marker =w, even when they denote singular objects. I will argue that the entities that these nouns refer to are in fact seen as things that are composed of smaller parts, i.e. having internal structure. The group of inherently plural nouns includes body parts, some tools, ornaments and hair. Some examples are given in Table 3.

When these objects are modified, the modifier will in most cases carry the

Table 3. Examples of inherently plural nouns

Yurakaré	English	Yurakaré	English
bannaw	arm	puptaw	fan
tewwew	foot	meyetew	earring
wishwiw	tail	tenchew	necklace
ewetew	broom	simpatiwi	braid

collective marker. Note that whether or not these nouns denote conceptually plural entities has no bearing on the number marking of the NP ( $-\emptyset$  vs.  $=w$ ):

- (6) matat -ima ti- bana =w<sup>6</sup>  
       big -COL 1SG- arm =PL  
       ‘my big arm/my big arms’

These inherently plural nouns act like the bunch of bananas in example (4a) above. For instance, *ewetew* ‘broom’ consists of small twigs tied together around a stick; *puptaw* ‘fan’ are feathers tied together; earrings and necklaces are also composed of smaller parts such as pieces of wood, iron, beads, etc; and a braid is hair tied together. Less prototypically inherently plural are nouns like *bannaw* ‘arm’, and *wishwiw* ‘tail’. An arm and a tail consist of several bones. Other body parts that are inherently plural, such as *pishishiw* ‘lower leg’ and *bolebolew* ‘lower arm’ also have more than one bone. A noun like *oteta* ‘hip’ consists of one bone and is a normal count noun rather than an inherently plural noun. On the other hand, *shishta* ‘finger or toe’, an entity which consists of several bones, is not seen as having internal structure, but as an individual entity lacking internal structure.

More generally speaking it is hard to find criteria where Yurakaré-speakers draw the line between individuals and groups on the one hand, and groups and aggregates on the other. The distinction between groups and substances can also be problematic. Examples of this are *shuppëw* ‘urine’ and *dyarru* ‘maize or manioc beer’, which are seen as inherently plural.<sup>7</sup> Psycholinguistic experiments should be carried out in order to shed some light on this issue. Nevertheless, there does seem to be a separate category of groups in Yurakaré.

## 5. Inherently singular nouns

The nouns of this type are always grammatically singular. They never take the plural marker  $=w$  and they do not trigger plural verbal agreement either. Nouns that are in this class are among others typical mass nouns (i.e. substance-like things), scenery, some body parts, tools and utensils, crops, as well as other categories. Examples are in Table 4, Spanish loanwords are in *italics*.

These semantic types do not seem to have anything in common with each other. There are some semantic patterns that emerge, but we will see that we can not predict the nouns that fall into this class on purely semantic grounds. I will discuss each semantic type and we will see that almost every semantic pattern that can be observed has exceptions.

First of all, ‘semantic’ mass nouns generally fall into the class of inherently singular nouns (top left column in Table 4). With semantic mass nouns I mean nouns that refer to concepts that fit the canonical idea of what a mass is: an

Table 4. Inherently singular nouns according to semantic type

1. masses		2. scenery		3. body parts	
samma	water	püü	road	perente	forehead
asuja	sugar	puyni	sun	dyukku	buttocks
sějsě	grease	lětēmě	jungle	meyye	ear
awaryente	alcohol	mororo	hill	unti	nose
4. utensils, artifacts		5. crops		6. other	
kuchilu	knife	ñowwo	manioc	sibbë	house
werta	basket	winnu	pepper	ěshshë	stone
shoshto	comb	shilli	maize	bishmita	cigarette
martillu	hammer	korre	tobacco	libru	book

unbounded substance without internal structure (cf. the feature model of Jackendoff 1991 outlined above). There are, however, nouns denoting canonical masses that fall into the category of inherently plural nouns, like *dyarru* ‘maize or manioc beer’ and *shuppëw* ‘urine’ (cf. above).

When we look at nouns denoting scenery, it often concerns nouns that are uniquely referring, like *puyni* ‘sun’ or *lětēmě* ‘jungle’. Other nouns can be said to be canonically uniquely referring. For instance roads and hills are not uniquely existing entities, but they can be said to be unique to a village or a certain area. In Spanish conversation the Yurakaré generally do not speak about ‘a road’ or ‘a hill’, but ‘the road’ and ‘the hill’.

As for the body-parts, the list includes concepts that prototypically come in pairs, like *meyye* ‘ears’, *dyukku* ‘buttocks’. There are also concepts in this class that are prototypically singular, like, *perente* ‘forehead’, *unti* ‘nose’. However, there are also body parts that prototypically come in pairs that belong to another class, like the inherently plural nouns *bannaw* ‘arm’, *tewwew* ‘foot’. One might argue that feet and arms are not really symmetrical pairs and they perform separate functions, but there are also examples such as the following:

- (7) a. lëtta pullë  
one testicle  
‘one testicle’
- b. lëshie pullë =w  
two testicle =PL  
‘two testicles’

Testicles prototypically come in pairs, just as ears do. Still, speakers distinguish between singular and plural with testicles, and not with ears. This again shows that, although there seems to be some semantic transparency, it does not allow us to predict class membership.

There are many utensils or artifacts in this class. However, as we have seen, there are also tools in the inherently plural class, like *ewetew* ‘broom’ *puptaw* ‘fan’. There seems to be no principal reason to classify *ewetew* ‘broom’ as an inherently plural noun, and *werta* as an inherently singular noun. This again

shows that class membership is lexically determined.

The crops in this class are relatively small crops that grow inside a containing element (e.g. *shilli* ‘maize’, *winnu* ‘chilipepper’). For instance bananas grow in bunches and they are in the count noun class. Corbett (2000: 80), following Jackendoff (1991), mentions that the size of the component parts may have something to do with whether nouns referring to them distinguish singular and plural forms. The larger the size of the component parts, the more likely it is they are treated as individual entities, the smaller the component part, the more likely it is that they are not individually distinguished. Although this is generally true for Yurakaré, a noun like *arush* ‘rice’ (from Spanish *arroz*) can nevertheless be pluralized.

A final remark that can be made is that there are many loanwords in this class, like *kuchilu* ‘knife’, *machitu* ‘machete’, *katcha* ‘ax’, *martillu* ‘hammer’, *libru* ‘book’. Although certainly not all loanwords are in this class, it may be the case that more recent loanwords generally fall into this class. An in-depth study of the history of the Yurakaré and loanwords in the area is necessary to give a decisive answer on this matter.

In short, the general semantic tendencies mentioned here are neither necessary nor sufficient criteria for predicting whether a noun falls into the class of inherently singular nouns or not. It may be that there once existed meaning-related criteria to define nouns as belonging to the class of inherently singular nouns, but nowadays this choice is largely lexically determined, and should be learned. The fact that the system is gradually being lost — younger speakers tend to lose the class-distinctions, due to the influence of Spanish — may be a result of this.

Chierchia (1998: 55) mentions the non-availability of plural morphology as one of the defining characteristics of mass nouns. Furthermore, he claims that, although there are semantic aspects to mass nouns, it is eventually a lexically determined matter. This can be illustrated by the following English data (Chierchia 1998: 56):

- (8) a. shoes vs. footwear
- b. clothes vs. clothing
- c. coins vs. change
- d. carpets vs. carpeting

In the mass examples (to the right) the atoms are backgrounded, made unimportant. This could also be the case with Yurakaré inherently singular nouns. Still, many nouns in the in this class can be counted without problems:

- (9) a. lëtta kabu  
      one soap  
      ‘one piece of soap’
- b. liwi biskotcho  
      three bread

‘three pieces of bread’

This is not problematic for the mass-analysis either. For English, Allan (1980) established that mass and count are lexically determined preferences that can be recategorized by syntactic environments, like in ‘two coffee’ in English, and that these countability preferences are gradual.

Within the group of inherently singular nouns in Yurakaré, there seems to be such a difference in countability preference. Nouns like *kabu* ‘soap’ in (9a) and *biskotcho* ‘bread’ in (9b) can apparently also mean ‘piece of soap’ and ‘piece of bread’, respectively. When modifiers of nouns like *kabu* or *biskotcho* are marked with *-ima*, the result is similar to that of plural NPs:

- (10) a. lëtt -ima kabu  
one -COL soap  
‘one package of soap (containing several pieces)’  
b. lëtt -ima biskotcho  
one -COL bread  
‘one bag of bread’

Some nouns, particularly substances, are less countable. They need the collective marker *-ima* on an modifying element, which yields the interpretation of ‘a bounded body of the mass X’. This confirms the analysis of *-ima* as a binder (cf. Table 5):

- (11) a. lëtt -ima asuja  
one -COL sugar  
‘one bag of sugar’  
b. lëtt -ima samma  
one -COL water  
‘one lake or river’

Table 5. The meaning of *-ima*

category	features	+ <i>ima</i>	category	features
aggregate	–bnd, +int’l. struct.	>	group	+bnd, +int’l struct.
substance	–bnd, –int’l. struct.	>	individual	+bnd, –int’l struct.

Modifiers of inherently singular artifacts also often carry the marker *-ima*.

- (12) a. lëtt -ima werta  
one -COL basket  
‘one basket’  
b. matat -ima kuchilu  
big -COL knife  
‘a big knife’

It is not very clear how the idea of boundedness should apply to these nouns. There are two possible analyses. One is that these artifacts are of the type *kabu*, in the sense that they consist of smaller atoms (e.g. several pieces of liana in the case of ‘basket’, a blade and a handle in the case of ‘knife’). The other possible analysis is that the nouns in (12) are like *asuja* and *samma* in the sense that the literal translations of (12) would be ‘one piece of basketry’ and ‘one piece of cutting material’, respectively. Again, psycholinguistic experiments should be carried out in order to investigate the way these entities are conceptualized.

Taking the data of this section into consideration, we can conclude that the absence of the plural marker =*w* within this class does not precisely indicate lack of internal structure, since in plural environments (e.g. with a plural quantifier) the plural marker still does not appear. In those cases, the absence of the plural marker means ‘unspecified for number’. The interpretation of the number of the complete NP then depends on the syntactic environment.

## 6. ‘Hybrid’ nouns

It is questionable whether we are dealing with a separate class of hybrid nouns, or whether these are simply inherently plural nouns with some deviant tendencies. Hybrid nouns act exactly like inherently plural nouns when referring to singular concepts. The difference becomes apparent in plural contexts, where hybrid nouns have a strong tendency to have zero marking for number on the NP and to trigger singular verb agreement. Examples are clothing items like *ossow* ‘traditional shirt’, *tarapu* (from Spanish *trapo* ‘blanket, cloth’), and types of arrows like *tometew* and *turumaw*.

We can explore a similar line of reasoning to explain the appearance of the plural marker in singular contexts as we did with the inherently plural nouns of Section 4. Clothing items used to be made of several pieces of inner bark of a tree, thumped together at the rims. From this collection of pieces of inner bark, clothing items were made (cf. Richter 1930: 391). Arrows are pieces of wood glued or tied together, and can therefore be analyzed as collectives. And indeed elements modifying these nouns are mostly marked with *-ima* for collective. Again, we do not have to adapt the meaning of the enclitic =*w* to be able to account for occurrences in singular environments. Now consider the following examples:

- (13) a. *tomete dula -Ø*  
           arrow make -3  
           ‘He made arrows.’  
       b. *së       =ja bëjta -y     kamisa bëmë*  
           1SG:PRN =s see -1SG:s shirt   much/many  
           ‘I see many shirts.’



In (13) we see that the conceptually plural nouns are not only unmarked for plural, they trigger singular (zero) object agreement on the verb as well. This indicates that these nouns are grammatically singular.

There is no absolute grammatical rule that tells us when these nouns are and when they are not marked for plural, but there is a tendency that the higher the quantity, and the more unspecific the quantity, the more chance there is that these nouns are zero marked. This tendency is schematized in Table 6.

**Table 6.** Tendencies in plural marking of hybrid nouns

Quantifier	Number marking
lëtta (1)	=w
lëshie (2), liwi (3), lëpsha (4)	=w/-Ø
bëmë (many), no quantifier	-Ø/=w

I have not encountered singular encodings of the inherently plural nouns of Section 4, but it is quite possible that these nouns can in some circumstances be grammatically singular in plural contexts as well.<sup>8</sup> There is, however, a strong preference of hybrid nouns to be encoded as grammatically singular in indefinite plural contexts, which is absent in inherently plural nouns. Some speakers even disallow plural encoding of these nouns in these contexts.

Chierchia (1998:69) claims that the crucial difference between plural count nouns and mass nouns is that, “while atomic structure is foregrounded in a count noun (in that, by definition, it’s extension singles out a set of atoms), such a structure, though present also in a mass noun, is present in it only implicitly in that the lexical entry is not directly associated with atoms.”

Without going into the discussion about what exactly is the meaning of mass, this backgrounding of atoms may be the semantic effect of the absence of the plural marker in hybrid nouns as well, metaphorically extending the idea of mass to these nouns. The fact that a noun like *ewetew* ‘broom’ does not show the behavior of hybrid nouns is because, while people usually possess several arrows and shirts or trousers, people usually only have one broom, or maybe two. This makes it less natural to talk about ‘brooming’ than ‘arrowing’.

## 7. Conclusion

Let us go back to the initial question of the article. How can we explain the facts in example (1) above, here repeated as (14)?

- |      |    |        |    |         |        |    |          |
|------|----|--------|----|---------|--------|----|----------|
| (14) | a. | shunñe | -Ø | 'man'   | shunñe | =w | 'men'    |
|      | b. | ewete  | =w | 'broom' | ewete  | =w | 'brooms' |
|      | c. | sibbē  | -Ø | 'house' | sibbē  | -Ø | 'houses' |
|      | d. | tomete | =w | 'arrow' | tomete | -Ø | 'arrows' |

We have seen that we can explain all occurrences of the enclitic =w as a marker of [+internal structure]. When used in singular contexts, this marker is added to nouns that denote entities that consist of smaller, identifiable parts.

The interpretation of the absence of this enclitic depends on lexical features (some nouns simply cannot take the plural marker). Syntactic contexts can disambiguate, such as the presence of quantifiers. We can analyze nouns that never take the plural marker as mass nouns if we see mass as a lexically determined category (albeit based on semantics).

Hybrid nouns often behave like mass nouns in plural contexts. The semantic effect of this is that the focus is on the collective class rather than the individual objects, much in the same way as English mass nouns 'furniture', 'basketry' and 'clothing'.

## Notes

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1. I do not assume the zero marker to be an actual morpheme. It is rather an opposition of the presence versus the absence of a morpheme. I use the symbol Ø for reasons of clarity only. The same holds for the Ø-markers in Table 1.

2. I consider the plural marker to be an enclitic because it usually appears on the final element of the noun phrase, independently of the order of elements within the NP:

shuyulē yee =w vs. yee shuyulē =w  
 beautiful woman =PL woman beautiful =PL  
 'beautiful women'

The elements to the left of the final element are optionally marked for plural as well, but the minimally marked word is the rightmost element.

3. Whether nouns of the type numbers II, III, and to a lesser extent IV (cf. Section 6) are plural or singular, can only be indicated by context or quantificational elements.

4. Both forms occur; we are dealing with a tendency, not an absolute rule, cf. Section 6.

5. Abbreviations used: 1 first person; 3 third person; COL collective; DST distributive; PL plural; s subject; SG singular.

6. Some nouns lose their gemination when affixed.

7. The plural nature of *dyarru* may have something to do with the fact that there is visible internal structure: pieces of manioc root or maize. *Shuppēw* is harder to explain. It might have something to do with drops of urine, or it might be that urine is seen as the product of several actions of urinating. The verb 'to urinate' is a verbalization (*i-shupē*) which literally means to have urine.

8. Plural count nouns can in some circumstances behave like mass nouns, with the effect of backgrounding the atoms, e.g. *decheche-Ø too* [collect-3 bone] ‘She was collecting bone’, meaning several. The frequency of this construction, as well as the combinatory possibilities with quantifiers differs from these hybrid nouns. These constructions are probably related, however.

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