

Countability in Mbyá

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Abstract: This paper investigates the distribution of nouns in Mbyá (Tupi-Guarani), with respect to plural marking, numerals and quantifiers. The study reveals the existence of a robust grammatical distinction between a class of count nouns, which consists mostly of individual denoting nouns, and a class of mass nouns, which consists mostly of substance denoting nouns.

1. Introduction

Mbyá Guarani is a Tupi-Guarani language spoken by about 30,000 speakers in Argentina, Brazil and Paraguay (Ladeira 2003). The present paper is based on data elicited in the Mbyá community of Ytu in Paraguay, with two native Mbyá speakers: Ronaldi Recalde Centurion (21 years old) and Paulina Nuñez Romero (over 60 years old). Both consultants are in contact with Paraguayan Guarani speakers. In addition, Ronaldi is fluent in Spanish. When transcribing sentences from elicitation sessions, I have used the orthography presented in Dooley (2015).

The paper is structured as follows. The next section gives some general background on the grammar of Mbyá. Sections 3 and 4 discuss number marking and the use of numerals. Universal quantifiers and quantity modifiers are introduced in Section 5. In Section 6, I discuss the compatibility of these expressions with different classes of nouns, which allows us to define distributional classes of count nouns and mass nouns. The use of container phrases for measuring is discussed in Section 7. Section 8 concludes.

2. Background on the grammar of Mbyá

Mbyá is a flexible word order language that is predominantly SVO in matrix clauses and SOV in embedded clauses (Dooley 2015). There is no tense or aspect inflection on verbs, bare verbs being interpreted with past or present temporal reference. For the sake of brevity, I will translate examples using past tense and perfective aspect, unless the context favours a different combination of tense and aspect. Subjects and objects are cross-referenced on the verb, following an active/inactive pattern that is similar to that of Paraguayan Guarani (see Velasquez Castillo 2002). There are different sets of cross-referencing prefixes for “active” and “inactive” intransitive verbs, which are identified respectively by the letters A and B in the glosses.¹

3. Number marking

Nominal plurality is marked by the suffix *-kue* and its allomorph *-gue*, as well as by the particle *kuery*. Neither of these markers is required on nouns referring to pluralities, and neither is fully productive. The suffix *-kue* ~ *-gue* is restricted to a closed class of nouns that mostly includes higher animates. *Kuery* is used as an associative plural (Moravcsik 2003), which combines with an individual denoting noun and refers to a group of individuals associated with the latter, as illustrated in (1). It is also used as a collective marker, in combination with a set denoting noun, as illustrated in (2):²

- (1) *Yma* *nhande* *kuery* *i-kuai* *ka'aguy* *r-upi* *anho*.
long.ago A1.PL.INC COL B3-be.PL forest R-LOC only

‘A long time ago our people lived only in the woods.’ (Florentino & Dooley 1977)

1 See appendix for a full list of glosses.

2 I have adapted the glosses of Florentino & Dooley (1977) to the guidelines used in this paper. Examples from Grupioni (2007) were translated into Brazilian Portuguese by a native speaker of the Nhandeva and Mbyá dialects of Guarani. Their glosses and translation into English are mine.

(2) *Ha'e va'e yvytu r-eve ma o-u guyra-'i kuery.*

3 REL wind R-with TOP A3-go bird-DIM COL

“With this wind come the birds.” (Grupioni 2007)

More generally, the two Mbyá speakers who were consulted in this project appear to use *kuery* to indicate that the referents of the noun form a group whose cohesion is based on social or spatio-temporal relations, and accept the use of *kuery* with inanimate objects:

(3) Context: I am looking for bananas. You saw several on the kitchen table.

A-exa pakova (kuery) mesa ary.

A1.SG-see banana COL table on

‘I saw bananas on the kitchen table.’

Comment: “If you use *kuery*, it means the bananas were in a bunch.”

Note that nouns marked with *kuery* may partake in distributive predication, and are therefore not group terms in the sense of being treated as atoms in plural predication (see e.g. Landman 1995).

The following examples illustrate different options in the morphosyntactic marking of singular and plural reference, with a noun that is compatible with both *-kue ~ -gue* and *kuery*:

(4) *A-exa peteĩ ava tekoa py.*

A1.SG-see one man village in

‘I saw a man in the village.’

- (5) *A-exa irundy {ava | ava-kue | ava kuery} tekoa py.*
 A1.SG-see four man | man-PL | man COL village in
 ‘I saw four men in the village.’

Example (5) shows that the use of a plural marker is not required with plural reference. However, nouns that accept plural marking with *-kue* ~ *-gue* were interpreted as singulars when used without this suffix, in the absence of any other indication of plurality:

- (6) Context: You are coming back from the city, and you are looking for a group of men. I tell you:
A-exa {ava-kue | ava kuery | #ava} tekoa py.
 A1.SG-see man-PL | man COL | man village in
 ‘I saw the men in the village.’

The following examples illustrate plural marking with a noun that is compatible with *kuery*, but not with *-kue* ~ *-gue*. Again, the use of a plural marker is not required with a numeral.

- (7) *Jagua o-juka {peteĩ | irundy} jaixa.*
 dog A3-kill one | four paca
 ‘The dog killed one/four paca(s).’
- (8) *Jagua o-juka {jaixa kuery | *jaixa-kue}*
 dog A3-kill paca COL | paca-PL
 ‘The dog killed the pacas.’

In this case however, a bare noun can be used for plural reference:

(9) Context: You know that the dog has killed several pacas, but you don't know how many:

Jagua o-juka jaixa.

dog A3-kill paca

‘The dog killed pacas.’

Finally, some nouns are incompatible with both *-kue* ~ *-gue* and *kuery* despite being compatible with numerals:

(10) *A-exa irundy {jety | *jety-kue | *jety kuery}*

A1.SG-see four sweet.potato | sweet.potato-PL | sweet.potato COL

mesa ary.

table on

‘I saw four sweet potatoes on the table.’ (cf. (3))

In sum, it appears that Mbyá is a partially number neutral language. Plural noun phrases with numerals do not require plural marking. Some nouns require plural marking for plural reference when used as bare nouns. Other nouns are incompatible with plural and collective markers despite being compatible with numerals.

4. Numerals

Dooley (2015) identified six numerals in Mbyá. The Mbyá consultants for this study reported that they only used the first five, and use Spanish numerals for greater numbers:

(11) *peteĩ* (‘one’), *mokoĩ* (‘two’), *mboapy* (‘three’), *irundy* (‘four’), *peteĩ nhiruĩ* (‘five’), *mboapy meme* (‘six’)

These numerals are used as prenominal modifiers. In order to modify a verb when counting events, a numeral must be suffixed by *-kue* or *-gue*:

(12) *Maria o-exa mboapy jaixa.*

Maria A3-see three paca

‘Maria saw three pacas.’

(13) *Maria o-exa peteĩ jaixa mboapy-kue-me.*

Maria A3-see one paca three-PL-ADD³

‘Maria saw one paca three times.’

(14) *Juan mokoĩ-gue o-nhã escuela py.*

Juan two-PL A3-run school in

‘Juan ran to school twice.’

5. Quantifiers and Q-words

In this study, three universal quantifiers and three quantity modifiers were considered:

(15) Universal quantifiers:

a. *ha'e pavẽ*

3 all

b. *ha'e javi*

3 all

c. *peteĩ teĩ*

one REDUP

(16) Quantity modifiers:

a. *h-eta*

B3-many/much

b. *mbovy*

few/little

c. *kyrĩ-'i*

little-DIM

³ While the function of the suffix *-me* in (13) is poorly understood, I surmise that it is interpreted as an additive operator in the sense of Greenberg (2009), i.e. as a type of repetitive operator. Dooley (2015) identifies *-me* as an allomorph of *-ve*. Additive uses of *-ve* are described in Thomas (2017:§5.1).

The quantifiers *ha'e javi* and *ha'e pavẽ* consist of a third person pronoun *ha'e* and a quantificational morpheme *pavẽ* or *javi*. All three quantifiers can be used either as noun modifiers or as pronominal expressions. *Peteĩ teĩ* is a distributive universal quantifier, while *ha'e javi* and *ha'e pavẽ* are compatible with both collective and distributive predication. Like universal quantifiers, quantity modifiers can be used as adnominal modifiers. Finally, note that *kyrĩ* is also used as a size predicate meaning 'small'.

6. Distributional classes of nouns

In order to help identify distributional classes of nouns with respect to the grammar of countability, a sample of nouns was divided into six ontological classes, each corresponding to a type of denotation, either individual or substance.

(17) Ontological classes of nouns:

a. Individuals (animates):

Jaixa ('paca'), *ava* ('man'), *kunha* ('woman'), *ka'i* ('monkey')

b. Individuals (vegetal):

jety ('sweet potato'), *pakova* ('banana')

c. Individuals (artefacts):

guapya ('chair'), *kuxa* ('spoon'), *mba'epu* ('musical instrument'), *ao* ('clothes'),
tembiporu ('tool')

d. Granulated substance:

kumanda ('beans'), *avaxi* ('corn'), *arro'i* ('rice')

e. Liquid substance:

ei ('honey'), *tuguy* ('blood'), *yy* ('water'), *yapo* ('mud')

f. Solid substance:

xo'o ('meat'), *jape'a* ('firewood'), *tembi'u* ('food')

Distributional tests suggest the existence of two distributional classes of nouns, see table 1. While individual denoting nouns are compatible with numerals and the universal quantifiers *ha'e pavě* and *petěi teĩ*, substance denoting nouns are not. In addition, only the latter are compatible with *kyrĩ'i* ('little') used as a quantity modifier rather than a size predicate. Finally, the quantifier *ha'e javi* and the quantity words *heta* and *mbovy'i* are compatible with both individual and substance denoting nouns in the sample:

	Individuals	Granulated Substance	Solid Substance	Liquid Substance
<i>-kue ~ -gue</i>	<i>ava, kunhã</i>	✗	✗	✗
<i>kuery</i>	✓/* <i>jety</i>	✗	✗	✗
Numerals	✓	✗	✗	✗
<i>petěi teĩ</i>	✓	✗	✗	✗
<i>ha'e pavě</i>	✓	✗	✗	✗
<i>ha'e javi</i>	✓	✓	✓	✓
<i>heta</i>	✓	✓	✓	✓
<i>mbovy'i</i>	✓	✓	✓	✓
<i>kyrĩ'i</i>	✗	✓	✓	✓

Table 1. Distributional classes of nouns

These results suggest the existence of a grammatical distinction between count nouns and mass nouns, and allow us to classify plural markers, numerals, quantifiers and quantity modifiers by their selectional restrictions, as in table 2:

COUNT	MASS	Neutral
<i>-kue ~ -gue</i>	<i>kyrĩ'i</i>	<i>ha'e javi</i>
<i>kuery</i>		<i>heta</i>
Numerals		<i>mbovy'i</i>
<i>petěi teĩ</i>		
<i>ha'e pavě</i>		

Table 2: Selectional Restrictions of Nominal Modifiers

The following examples illustrate these findings with an individual denoting noun (*pakova* ‘banana’) and a substance denoting noun (*kanguijy* ‘corn porridge’ or ‘chicha’):⁴

- (18) a. *A-exa pakova mesa ary.*
 A1.SG-see banana table on
 ‘I saw (a/the) banana(s) on the table.’
- b. *A-exa pakova kuery mesa ary.*
 A1.SG-see banana COL table on
 ‘I saw (the) bananas [in a bunch] on the table.’
- c. **A-exa pakova-kue mesa ary.*
 A1.SG-see banana-PL table on
- d. *A-exa irundy pakova mesa ary.*
 A1.SG-see four banana table on
 ‘I saw four bananas on the table.’
- e. *A-exa h-eta pakova mesa ary.*
 A1.SG-see B3-many/much banana table on
 ‘I saw many bananas on the table.’
- f. *A-exa mbovy pakova mesa ary.*
 A1.SG-see few banana table on
 ‘I saw few bananas on the table.’
- g. **A-exa kyrĩ’i pakova mesa ary.*
 A1.SG-see little banana table on

4 As the consultants’ comments on examples (18) *h* to *j* (between square brackets) indicate, different quantifiers suggest different spacial organizations of their domain. This aspect of the interpretation of Mbyá quantifiers is still poorly understood.

h. *A-exa ha'e javi pakova mesa ary.*
A1.SG-see 3 all banana table on

‘I saw all the bananas [in bunch] on the table.’

i. *A-exa peteĩ teĩ pakova kosina my.*
A1.SG-see one REDUP banana kitchen in

‘I saw all the bananas [one by one] in the kitchen.’

j. *A-exa ha'e pavẽ pakova mesa ary.*
A1.SG-see 3 all banana table on

‘I saw all the bananas on the table. [together]’

(19) a. *Ha-'u kanguijy.*

A1.SG-ingest chicha

‘I drank (the) chicha.’

b. **Ha-'u kanguijy-kue.*

A1.SG-ingest chicha-PL

c. **Ha-'u kanguijy kuery.*

A1.SG-ingest chicha COL

d. **Ha-'u irundy kanguijy.*

A1.SG-ingest four chicha

e. *Ha-'u h-eta kanguijy.*

A1.SG-ingest B3-many/much chicha

‘I drank a lot of chicha.’

f. *Ha-'u mbovy kanguijy.*

A1.SG-ingest few/little chicha

‘I drank little chicha.’

- g. *Ha- 'u kyrĩ- 'i kanguijy.*
 A1.SG-ingest little-DIM chicha
 ‘I drank little chicha.’
- h. *Ha- 'u ha 'e javi kanguijy.*
 A1.SG-ingest 3 all chicha
 ‘I drank all of the chicha.’
- i. *Ha- 'u peteĩ teĩ kanguijy.*
 A1.SG-ingest one REDUP chicha
 ‘I drank each bottle of chicha [one by one].’
- j. *Ha- 'u ha 'e pavẽ kanguijy.*
 A1.SG-ingest 3 all chicha
 ‘I drank all the bottles of chicha.’

Note that examples (19i) and (19j) are cases of coercion of a substance denotation to a container plus content denotation.

The existence of a grammatical count/mass distinction was also confirmed by a quantity judgment task (Barner & Snedeker 2005). In this task, consultants saw a picture representing an individual next to a number of entities of some sort on the left side of the picture, and another individual next to a smaller number but greater volume of entities of the same sort on the right side. Their task was to answer the question “Who has more N?” by pointing at one side of the picture, where N is a noun that denotes entities of the sort represented in the picture. Example (20) illustrates the form of the question in Mbyá, with a substance denoting noun and an individual denoting noun. For a more detailed discussion of comparison in Mbyá, see Thomas (2017):

- (20) a. *Mava'e o-guereko h-eta-ve yy?*
 who A3-have B3-many/much-more water
 'Who has more water?'
- b. *Mava'e o-guereko h-eta-ve hy'akua?*
 who A3-have B3-many/much-more bowl
 'Who has more bowls?'

A total of ten nouns were tested. The two consultants gave a volume answer for three substance denoting nouns (*yy* 'water', *juky* 'salt', *xo'o* 'meat') and a number answer for seven individual denoting nouns (*hy'akua* 'bowls', *apyka* 'seats', *pira* 'fish', *uru rupia* 'hen's eggs', *pakova* 'banana', *ao* 'garment', *xapatu* 'shoes'), supporting the conclusion that individual denoting nouns tend to be categorized as count and substance denoting nouns as mass.

7. Measuring and portioning

Consultants use container phrases both to refer to concrete containers and as units of measurement. These two readings of container phrases are illustrated in (21) and (22) respectively. In these examples, the word *ryru* is used in the concrete container reading, while *renyẽ* is used in the measurement reading, where it also entails that the container is full:

- (21) *A-joka mokoĩ hy'akua avaxi ku'i r-yru.*
 A1.SG-break two gourd corn flour R-receptacle
 'I broke two gourds of flour.'
- (22) *A-i-poru mokoĩ hy'akua r-enyẽ avaxi ku'i mbojape-rã.*
 A1.SG-3-use two gourd R-full corn flour corn.bread-FUT
 'I used two gourds worth of corn flour for the bread.'

Note that the use of *renyẽ* is not required to generate a measurement reading. However, its use with a verb that forces a concrete container reading is infelicitous:

- (23) *A-mo-ĩ mokoĩ kucha (r-enyẽ) juky tembi'u py.*
A1.SG-caus-be two spoon R-full salt food in
'I put two spoons worth of salt in the food.'

- (24) *#A-joka mokoĩ hy'akua r-enyẽ avaxi ku'i.*
A1.SG-break two gourd R-full corn flour
'I broke two gourds of flour.'

Comment: 'It means that the flour itself was broken.'

These examples show that container phrases in Mbyá can be used to form pseudo-partitive phrases with mass nouns like *juky* ('salt') or *avaxi ku'i* ('corn flour'), which licenses the use of numerals with these nouns.

8. Conclusion

There is a clear distinction between count nouns and mass nouns in Mbyá. Plural marking, numerals and two universal quantifiers select count nouns. The quantity modifier *kyrĩ'i* ('little') selects mass nouns. Container phrases license numerals with mass nouns. Finally, in the sample of nouns that was considered in this study, all individual denoting nouns were count and all substance denoting nouns were mass. We can of course not be certain that this correlation between ontological class and grammatical status has no exception in the language.

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Glosses

A1.SG: 1st person singular, class A; B1.SG: 1st person singular, class B; ADD: additive; COL: collective; DIM: diminutive; FUT: future; INC: inclusive; LOC: locative; PL: plural; R: relational morpheme; REDUP: reduplication; REL: relativizer; TOP: topic.

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