

Number Marking, Genericity and Reference to Kinds in Mbyá

Abstract

In this paper, we give an overview of the grammar of genericity and reference to kinds in Mbyá (Tupí-Guaraní, Argentina, Brazil and Paraguay), based on storyboard elicitation with the second author, a native speaker of Mbyá from the Misiones province, Argentina, as well as analysis of published narratives. One feature of interest is the presence of optional number marking with animate nouns, and partially obligatory number marking with a subset of human-denoting nouns. This calls into question the otherwise number-neutral status of the language and potentially complicates the analysis of genericity and reference to kinds. We propose an analysis of number-marking in the language that reconciles the presence of plural markers with number-neutrality and show that, once this is understood, genericity and reference to kinds are amenable to a neo-Carlsonian analysis in the line of Chierchia (1998) and later revisions by Dayal (2004, 2017).

1. Introduction

This paper discusses the grammar of genericity and reference to kinds in Mbyá, a Guaraní language spoken by approximately 37,000 people in Argentina, Brazil and Paraguay (Ladeira, 2018). The study was realized as part of the Generics Across Languages (GAL) project (Lazaridou-Chatzigoga, Husband, Lima, & Stockall, 2025).

This introduction sketches a few relevant grammatical features of the language. Section 2 discusses the storyboard methodology adopted by the GAL project, and section 3 presents the results of our storyboard retellings in Mbyá. In section 4, we propose a semantic analysis of Mbyá bare nominals, paying special attention to optional plural marking, and we lay out the consequences of this analysis for the grammar of reference to kinds and genericity.

All examples that are not cited from published sources were either produced by the second author, who is a native speaker of Mbyá from Misiones, Argentina, or constructed by the first author and evaluated by the second author. Whenever possible, we supplemented results of elicitation and storyboard retelling with corroborating examples from published narratives.

1.1 Number marking and definiteness

Mbyá is an article-less language. Bare nouns are attested as arguments in any grammatical function with indefinite and definite readings, as illustrated in (1) for object and subject positions respectively:^{1,2}

¹ Glosses (unlisted abbreviations follow the Leipzig Glossing Rules for standard abbreviations): A1: 1st person, active; B1: 1st person, inactive; ADD: additive; ADVLZ: adverbializer; COMP: completive; CONT: contrast; DS: different subject; DIM: diminutive; DOM: differential object marking; HSY: hearsay evidential; INT: intensifier; ITER: iterative; MIR: mirative; R: linker prefix *r-*; REDUP: reduplication; SRC: source; SS: same subject; UNIV: universal.

² Mbyá predicates cross-reference their arguments following an active-inactive alignment system. Intransitive predicates cross-reference their subject with active prefixes (glossed A1, A2, etc.) or inactive pro-

- (1) Yma ete xe-r-amoi o-guereko **ka'i**.
 old INT B1.SG-R-grandfather A3-have monkey
 'A long time ago, my grandfather had a monkey.'
Ka'i ma i-mba'evyky raxa va'e.
 monkey TOP B3-play excessively REL
 'The monkey was excessively playful.' (Veríssimo, 2002)

Bare nouns are also attested as predicates, in keeping with the omnipredicative nature of the language family (Queixalós, 2006):

- (2) Ha'e rã ava po-apẽ va'e ma je kunha ra'e.
 3 DS man hand-nail REL TOP HSY woman MIR
 'It turned out that the man with claws was a woman.' (Dooley, 2011)

With non-human nouns, plural reference is available regardless of definiteness and grammatical function. In example (3), the protagonist of a children's story was stung by a swarm of bees and uses the bare noun *eiru* as a definite noun phrase referring to these specific bees:

- (3) **Eiru** tu inharõ vaipa rima ra'e.
 bee MIR B3-angry a.lot DM MIR
 'The(se) bees are very angry' (Veríssimo, 2002)

By contrast, a subset of human nouns requires the suffix *-kue* (or its allomorph *-gue* occurring on nasal roots) for plural reference, as illustrated in (4):

- (4) a. Mitã oñevanga pelota reve.
 child A3-play ball with
 'The/a child was playing with a ball.'
 b. Mitã-gue oñevanga pelota reve.
 child-PL A3-play ball with
 '(The) children were playing with a ball.'

We come back to the grammar of plural marking in section 1.3.

1.2 Indefinite uses of bare nominals

In languages like Hindi or Russian, bare nominals must take narrow scope with respect to negation and other scope-taking operators. They must also refer maximally. That is to say, they cannot be used to translate (5b) or (5c) as referring to a subset of the children introduced in (5a):

clitics (glossed B1, B2, etc.) depending on their lexical class. Transitive predicates cross-reference their subject using an active prefix, unless their object is higher on a person hierarchy 1 > 2 > 3. In that case, the object is cross-referenced using an inactive pro-clitic.

(5) Dayal (2019)

- a. There were several children in the park.
- b. A child was sitting on the bench, and another was standing near him.
- c. Some children were sitting on the bench, and others were standing near him.

The same is true of Mbyá bare nominals. According to the second author, (6) is infelicitous in a context where the speaker saw all the boys except a specific one that they noted was missing. It can only mean that the speaker didn't see any boys at school. Furthermore, (7b-d) are not felicitous continuations of (7a). The second author feels that they all sound like "the story is changing." The first sentence in (7b) is degraded because *mitã* must have singular reference and cannot refer partitively to one of the children introduced in (7a) in the absence of the numeral *peteĩ* ('one'), which acts as an indefinite marker. (7c) is degraded because in this context, *mitãgue* is understood as an anaphoric definite noun phrase that picks up the totality of children introduced in (7a), and information structure favours subject inversion, as illustrated in the first sentence of (7d). That sentence is itself felicitous, but because *mitãgue* refers maximally, its continuation is not.

- (6) Nd-a-echa-i kunumi escuela py.
NEG-A1.SG-see-NEG boy school in
'I didn't see any boys at school.'

- (7) a. Heta'i mitã i-kuai kokue py.
 many child B3-be.PL field in
 'There were many children in the field.'

- b. #(Amongue) mitã oñevanga pelota reve. Amboae kuery o-ma'ẽ.
 INDF.PL child A3-play ball with other PL A3-watch
 Intended: 'Some children were playing with a ball, and others were watching.'

- c. #Mitã-gue o-ñevanga pelota reve. Amboae kuery (katu) o-ma'ẽ.
 child-PL A3-play ball with other PL (CONT) A3-watch
 Intended: 'Some children were playing with a ball, and others were watching.'

- d. O-ñevanga pelota reve mitã-gue. #Amboae kuery (katu) o-ma'ẽ.
 A3-play ball with child-PL other PL (CONT) A3-watch
 Intended: 'Some children were playing with a ball, and others were watching.'

1.3 Plural Marking

There are two plural markers in the language. The first one, *-kue* and its allomorph *-gue* attested on nasal roots, is restricted to a subset of human nouns. Plural inflection is required for plural reference when these nouns are bare. This is illustrated by (7b) above, which we already discussed. The same nouns need not inflect when combined with numerals or quantifiers:

- (8) Yma je i-kuai mokoĩ ava(-kue).
 old HSY A3-be.PL two man(-PL)
 ‘A long time ago, there were two men.’
- (9) Pavẽ ava(-kue) i-kuai kokue py.
 all man(-PL) B3-be.PL field in
 ‘All the men are in the field.’

Downward entailing environments like the scope of negation provide evidence that nouns inflected with *-kue* have cumulative denotations, which contain both atomic individuals and their sums. To illustrate, (10) can only mean that the speaker did not see any boys at school. It cannot mean that they did not see more than one boy:

- (10) Nd-a-echa-i kunumi-gue escuela py.
 NEG-A1.SG-see-NEG boy-PL school in
 ‘I didn’t see any boys at school.’

Another plural marker in the language is the particle *kuery*, which pluralizes third person pronouns and functions as an associative plural when combined with proper names and first or second person plural pronouns:

- (11) ha'e kuery
 3 PL
 ‘they’
- (12) Para kuery
 Para PL
 ‘Para’s family’

Kuery also combines with animate nouns. Like *-kue*, it is optional with numerals and quantifiers, and it is interpreted homogeneously in the scope of negation:

- (13) A-echa irundy jurua (kuery) tekoa py.
 A1-see four non-indigenous (PL) village in
 ‘I saw four juruas (non-indigenous people) in the village.’
- (14) Nd-a-echa-i kunumi kuery escuela py.
 NEG-A1.SG-see-NEG boy PL school in
 ‘I didn’t see any boys at school.’

Human nouns that inflect with *-kue* are also compatible with *kuery*, which can serve as an alternative plural marker for these nouns:

- (15) (Pavẽ) ava kuery tekoa gui yvate.
 all man PL village SRC tall
 ‘(All) the men in the village are tall.’

However, *kuery* is also attested with animate nouns that cannot bear the suffix *-kue*. With these nouns, plural marking is truly optional, even in the absence of a numeral or quantifier:

- (16) Kochi (kuery) ma i-kuai ko ka'aguy py.
 wild.boar (PL) TOP B3-be.PL this forest in
 'There are wild boars in this forest.'

The status of *kuery* and its cognates is somewhat debated in studies of the Tupi-Guarani family (for an overview, see Guerra Vicente & Ramires, 2020). In his grammar and dictionary of Mbyá, Dooley (2016) describes *kuery* as “indicating a more or less cohesive group of individuals or animals.”³ This intuition is supported by examples like (17), in which *kuery* appears to emphasize the swarming action of the bees in the second sentence, in contrast to their diffuse state in the first one:

- (17) Ha'e vy je o-nhemboja o-vy **eiru** o-veve o-kua-py=a katy.
 3 ss HSY A3-approach go-V2 bee A3-fly A3-be.PL-V2=NMLZ to
 'And so, he approached the place where the bees were flying.'
- Ha'e rã je **eiru kuery** o-ẽ-mba vyve o-pipa rive nhande=i va'e.
 3 DS HSY bee PL A3-leave-all ss A3-sting INT 1.PL.INCL-DIM REL
 'But the bees suddenly left [their hive] and stung the man all over.' (Dooley, 2011)

We may therefore tentatively analyze *kuery* as a group-forming plural. Note however that *kuery* is not restricted to collective predication. Example (14) demonstrates that *kuery* is compatible with distributive predication. In that respect, nominals pluralized with *kuery* may be more similar to group nouns like *family* or *team*, which are compatible with distributive and reciprocal predications, than they are to group nouns like *bunch* or *pile*, which are less readily so (Pearson, 2011). We come back to the status of *-kue* and *kuery* in section 4, where we discuss their interaction with genericity and reference to kinds.

1.4 Countability

Mbyá displays a robust count/mass distinction in its quantifier and numeral system. In particular, numerals, the universal quantifiers *petei-teĩ* and *(ha'e) pavẽ*, as well as the plural markers *-kue* and *kuery* are only attested with count nouns. The reader is referred to Thomas (2020) for a detailed description of the grammar of countability in the language.

2. Methodology

Following the GAL project methodology, the primary data for our study were elicited using five storyboards. The elicitation was a collaboration between the two authors. The first author translated the original story boards into Spanish and reviewed the translation with the second author. The first author then transcribed the second author's retelling of the storyboards in Mbyá, using the story as context for translating target sentences.

³ “[...] ele indica um conjunto mais ou menos coesivo de pessoas ou animais” (Dooley, 2016, p. 94).

After each retelling, the two authors glossed and translated all Mbyá examples. Elicitation was carried out online over a period of several weeks, each storyboard being processed in a separate elicitation session. Table 1 lists the storyboards used in the study, in their order of elicitation.

1	Banana
2	Lion
3	Canadian
4	Car
5	Water

Table 1: List of Storyboards

In the sections that follow, we supplement the analysis of storyboard results with data from published narratives and sentences constructed by the second author.

3. Results

3.1 Kinds across storyboards

Reference to kinds was the most difficult category to study using storyboards, since many sentence conditions that target it were retold with object-level or ambivalent constructions in Mbyá. At the root of this difficulty is the fact that Mbyá lacks translational equivalents for many of the predicates that are generally considered to select kind-level subjects or objects unambiguously in English. These are predicates like *be extinct*, *invent* or *evolve from*. We are therefore left with predicates that, to a greater or lesser extent, can be interpreted as predicates of objects.⁴

The following storyboard examples illustrate these issues. The verb *cultivate* in (18), from the Banana storyboard, licenses a kind-level interpretation of its passive subject in the English example and its Spanish translation. Its Mbyá translation *oñoty*, however, is closest in meaning to *plant*, which is more readily compatible with an object-level interpretation. Together with the cumulative denotation of bare inanimate nouns in Mbyá, this suggests that *pakova* might receive an object-level interpretation in (18c). An even clearer example is given in (19), from the Canada storyboard. *Widespread* and its Spanish translation are predicates of kinds. The Mbyá translation in (19c), by contrast, uses an existential construction with an object-level existential subject.

- (18) a. The banana was first cultivated in Papua New Guinea.
b. El plátano fue cultivado por primera vez en Papúa Nueva Guinea.
c. Pakova o-ñotỹ ypy raka'e Papua Nueva Guinea py.
Banana A3-plant begin PST Papua New Guinea in
‘(People) started to plant bananas in Papua New Guinea.’

⁴ This difficulty was also noted by Navarro (2024) in Kaingang.

- (19) a. Canadians are widespread in the United States.
 b. Los canadienses están muy extendidos en los Estados Unidos.
 c. Canada py-gua kuery i-kuai opa rupi Estados Unidos py.
 Canada in-NMLZ PL B3-be.PL all around United States in
 ‘There are Canadians all around the United States.’

Notwithstanding these complications, we were able to elicit less contentious examples of reference to kinds. In all cases, the second author elected to use bare nouns without plural markers in his retelling. Examples (20) and (21) illustrate.

- (20) a. The lion is a large cat.
 b. El león es un felino grande.
 c. Reon ma peteĩ felino tuicha va'e.
 Lion TOP one cat large REL
 ‘The lion is a large cat.’
- (21) a. The car evolved from the horse-carriage.
 b. El auto evolucionó del carruaje tirado por caballos.
 c. Auto ma o-u carruaje o-moatã kavaju va'e gui.
 car TOP A3-come carriage A3- pull horse REL SRC
 ‘Cars come from horse-drawn carriages.’

An examination of published narratives corroborates this preference. (Veríssimo, 2002), an alphabet book for children, is rich in generic and kind-level statements. All instances of reference to kinds in the book are made with bare nouns without plural markers, as illustrated in (22):

- (22) Jarara ma mboi tuvixa va'e.
 Jarara TOP snake large REL
 ‘The jarara is a large snake.’⁵

While none of the cases of reference to kinds during the storyboard retellings included plural markers, the second author judges *kuery* to be acceptable in some of these cases. The following sentences were constructed by the first author after storyboard elicitation and were accepted by the second author:

- (23) Reon kuery ma felino tuicha va'e.
 Lion PL TOP cat large REL
 ‘Lions are large cats.’

⁵ Note that (Veríssimo, 2002) is written using Portuguese-based spelling, which differs in some respects from the Spanish-based spelling used in the rest of the paper, cf. *tuicha* vs. *tuvixa*.

- (24) Reon kuery ma Africa ha'e India py-gua.
 car PL TOP Africa and India in-NMLZ
 'Lions are native to Africa and India.'

Given the small class of human nouns that license the suffix *-kue*, it is more difficult to assess whether these plurals can refer to kinds. Of the relevant nouns, only *ava* ('man') readily lends itself to this usage, as a cover term for the human species. As examples (25) and (26) illustrate, the second author judges that *avakue* can be used to refer to kinds just as well as *ava* and *ava kuery*:⁶

- (25) Ava (kuery) ndae'i mymba.
 man (PL) say.NEG domestic.animal
 'Human beings are not domestic animals.'
- (26) Ava-kue ndae'i mymba.
 man-PL say.NEG domestic.animal
 'Human beings are not domestic animals.'

3.2 Sub-kind across storyboards

Reference to sub-kinds in the storyboards was generally produced with the suffix *-gua*, which nominalizes adverbial expressions. This nominalizer combines with the postposition (*r*)e to form the noun *regua*, which Dooley (2016) translates as 'type':

- (27) Ha'e javi país o-ñotỹ peteĩ regua pakova.
 every country A3-plant one type banana
 'Every country cultivates [lit. 'plants'] one type of banana.'

-gua may also combine with an adverbialized indefinite pronoun to express existential quantification over sub-kinds, another use that is independently attested in our corpus:

- (28) a. Some lions have gone extinct across the world.
 b. Algunos tipos de leones se han extinguido en todo el mundo.
 c. Amongue-icha-gua reon nd-aipo-ve-i ma yvy py.
 INDF-ADV LZ-NMLZ lion NEG-3.be.ADD-NEG TOP world in
 '(Lit.) Lions of a certain kind don't exist anymore in the world.'
- (29) Ju'i ma heta rei regua i-kuai.
 frog TOP many INT type B3-be.PL
 'There are many types of frogs.' (Veríssimo, 2002)

⁶ Initially, the second author expressed a preference for (25) over (26). However, upon revisiting these examples in subsequent work sessions, they corrected their judgment. Given the small number of nouns compatible with *-kue* and the apparent paucity of unambiguous predicates of kinds in Mbyá, we were not able to find relevant examples in corpora, and we found it difficult to explore the question more systematically through elicitation. We elected to present the second author's corrected judgement.

As with reference to kinds, *kuery* was not attested either in our storyboard retelling or in our corpus. Nevertheless, subsequent elicitation suggests that it is acceptable in these constructions:

- (30) Amongue-icha-gua reon kuery nd-aipo-ve-i ma yvy py.
 INDF-ADVLZ-NMLZ lion PL neg-3.be.ADD-NEG TOP world in
 ‘Lions of a certain kind don’t exist anymore in the world.’

3.3 Generics across storyboards

With animate nouns, generics were formed with *kuery*. The plural marker is not required, but it is preferred by the second author:

- (31) a. Lions have sharp claws.
 b. Los leones tienen garras afiladas.
 c. Reon (kuery) ma i-poãpe h-aĩmbe.
 Lions PL TOP B3-claws B3-sharp
 ‘Lions have sharp claws.’
- (32) a. Canadians are very kind people.
 b. Los canadienses son personas muy amables.
 c. Canada py-gua (kuery) ma i-po-ayvu meme.
 Canada in-NMLZ PL TOP B3-GEN-love UNIV
 ‘Canadians are very loving.’⁷

Although the storyboards do not include generic uses of nouns suffixed with *-kue*, relevant examples are attested in published narratives:

- (33) Kyrĩ-gue ma o-kyje ete.
 small-PL TOP A3-afraid INT
 ‘Children are afraid of them [owls].’ (Veríssimo, 2002)

While we weren’t able to find uninflected counterparts of such examples in our corpus, the second author judges that they are well formed, as the following example illustrates (cf. *kunhague*, ‘women’):

- (34) Kunha o-guereko katu o-memby.
 woman A3-take.care CONT A3-offspring
 ‘A woman (always) takes care of her children.’

Inanimate count generics were systematically formed with bare nouns without plural markers in our storyboard retellings:

⁷ *Meme* is an adverbial quantifier that conveys either pluractionality or distributive universal quantification over the subject.

- (35) a. Bananas are easy to digest.
 b. Los plátanos son fáciles de digerir.
 c. Pakova ho-'a porã ja-'u rã.
 banana A3-fall well A1.PL.INLC-eat DS
 Lit. 'Bananas fall well when we eat them.'

Mass nouns are incompatible with plural markers and are used as such in generic sentences:

- (36) a. Water forms round droplets.
 b. El agua forma gotas redondas.
 c. Yy ma oky-ty apu'a.
 water TOP rain-ITER spherical
 Lit. 'Water rains spherically.'

3.4 Token/Object reference in habituals

The use of *kuery* is optional with object-level reference in habituals:

- (37) a. People see lions at the zoo.
 b. Las personas ven leones en el zoológico.
 c. Ja-echa kuaa reon (kuery) pe zoológico py.
 A1.PL.INCL-see can lion (PL) DOM zoo in
 'People can see lions at the zoo.'

Although not present in storyboards, object-level plurals formed with *-kue* are attested in habitual sentences in published narratives:

- (38) Amongue ramo guaiguĩ-gue'i o-japo-uka kunhataĩ-gue pe kaguijy
 sometimes DS old.woman-PL-DIM A3-make-CAUS maiden-PL DOM kaguijy
 'Sometimes, older women tell young women to make kaguijy.' (Grupioni, 2007)

Mass nouns are of course used without plural markers:

- (39) a. My brother likes drinking water with his coffee.
 b. A mi hermano le gusta beber agua con su café.
 c. Che-r-yke'y o-'u-che rema yy cafe reve.
 B1.SG-R-brother A3-eat-DES ASP water coffee with
 'My brother likes drinking water with his coffee.'

3.5 Token/Object reference in episodic sentences

With count nouns, the three strategies discussed so far are available for object reference in episodic sentences:

- (40) a. The students saw lions in a movie.
 b. Los estudiantes vieron leones en una película.
 c. Estudiante (kuery) je o-echa reon (kuery) película py.
 student (PL) HSY A3-see lion (PL) movie in
 ‘The students saw lions in a movie.’

With inanimate nouns and mass nouns, bare nouns are used without any plural marker:

- (41) a. My dog chases cars.
 b. Mi perro persigue coches.
 c. Che-jagua o-mo-nã auto pe.
 B1.SG-dog A3-CAUS-run car DOM
 ‘My dog chases cars.’

3.6 Summary

With inanimate and mass nouns, bare nouns without plural marking are used in all constructions of interest: reference to kind and sub-kinds, generics, and object-level reference in habitual or episodic sentences, regardless of definiteness.

With animate nouns, the situation is more complex. While unmarked bare nouns are generally acceptable, plural marking is required in certain contexts. Nouns that combine with *-kue* require a plural marker (either *-kue* itself or *kuery*) for plural object-level reference in episodic sentences, in the absence of numerals or quantifiers. With these nouns, *-kue* is attested but optional with generics and reference to kinds. With other animate nouns, *kuery* is attested in all aforementioned constructions. Unlike those that inflect with *-kue*, these nouns do not require plural marking for object-level plural reference in episodic sentences.

	Kinds	Subkinds	Generics	Token/Objects in Habituals	Token/Objects in Episodics
Bare nouns	✓	✓	✓	✓	✓
<i>-kue</i> -marked nouns	✓	✓	✓	✓	✓
<i>kuery</i> -marked nouns	✓	✓	✓	✓	✓

Table 2: Summary of Storyboard Elicitation

The reader will have noted that some loanwords were used in storyboard retellings. This is to be expected, since some of the items depicted in the storyboards are not represented in the native lexicon. We do not however believe that this is especially problematic in the case of Mbyá. Mbyá speakers live in permanent contact with the broader Argentinian, Brazilian or Paraguayan society and make frequent use of Portuguese or Spanish loanwords in day-to-day communication, even

when talking to peers. The objects and topics addressed in the storyboards (bananas, lions and zoos, Canadians and international travel, cars, water ecosystems and basic chemistry) will be familiar to Guaraní speakers through direct experience, schooling or social media.

4. Analysis

Before we can offer an analysis of genericity and reference to kinds in Mbyá, we must lay out our assumptions about the denotation of bare nominals and plural markers. This is not a completely trivial task since, as we have seen, Mbyá combines a number-neutral grammar for inanimate nouns with optional number marking of animate nouns. A further complication is that plural marking in the language features both plural suffixation for a subset of human nouns and a plural marker with associative uses which is more generally attested with animate nouns. We must disentangle the effects of these factors on the denotation of noun phrases before we can tackle the grammar of genericity and kind-level predication in the language.

4.1 Number-neutrality and optional number marking

Let us take stock of what we learned about the grammar of plural reference in Mbyá. For the sake of conciseness, we will refer to animate nouns that inflect with *-kue* as “restricted animates.” Other animate nouns will be referred to as “regular animates.”

We observed that inanimate and regular animate nouns license plural reference without plural marking. Regular animates, however, are compatible with the plural marker *kuery*, which appears to be truly optional with these nouns. By contrast, restricted animates, which form a subset of human nouns, require plural marking for object level plural reference in the absence of numerals and quantifiers. With these nouns, plural marking can be realized either by the suffix *-kue* or by the particle *kuery*, which appear to alternate freely. Furthermore, it was observed that marked plurals in Mbyá have cumulative denotations which include atomic individuals and their sums.

The lack of plural marking on inanimate count nouns and its optionality with the vast majority of animates suggest that Mbyá is a number-neutral language. That is to say: bare count nouns denote atomic individuals and their sums. Such an analysis has already been explored by Guerra-Vicente & Ramires (2024) for Kaiowa, a closely related Guaraní language. In the case of Mbyá, three questions remain: (i) why is plural marking obligatory on a subset of animate nouns in upward-entailing contexts, (ii) why is *kuery* used at all with otherwise number neutral nouns and (iii), why does *kuery* alternate with the suffix *-kue* as a plural marker for restricted animates?

We believe that the key to the exceptionality of restricted animates lies in their categorization. Dooley (2016) observes that all nouns that inflect with *-kue* originate as nominal modifiers.⁸ Importantly, in their use as modifiers, their denotation is not restricted to human individuals:

⁸ The existence of a class of adjectives is debated in Guaraní languages. In Mbyá, any noun can serve as a predicate, in which case their subject is cross-referenced on the noun with a set B marker. Such predicates can then function as modifiers through relativization. There is however a small class of roots that can serve as nominal modifiers without cross-reference marking or relativization. It is this class of roots which we call “nominal modifiers.”

- (42) a. *ava*
man
'man'
- b. *uru* *ava*
chicken male
'rooster'

The suffix *-kue* only pluralizes nouns derived from these modifiers. Interestingly, there appears to be two levels at which nominalization can occur. When a bare root is nominalized, as in (43a), the referent of the noun must be human. When a cross-referenced stem is nominalized, however, the referent may be inanimate, as illustrated in (43b):

- (43) a. *ava-kue*
man-PL
'men'
- b. *i-porã-gue*
B3-beautiful-PL
'beautiful things or people'

Furthermore, root nominalization without concomitant pluralization appears to be restricted to a subset of modifiers. To illustrate, the root *porã* shown in (43b) cannot be nominalized without the addition of a cross-reference marker.

We propose that roots compatible with *-kue* all denote property concepts. Koontz-Garboden and Francez (2017) argue that there are two types of Property Concept lexemes across languages, each with their own strategies of predication: individual denoting PC lexemes support non-possessive predication strategies, while quality denoting PC lexemes support possessive predication strategies. There is ample evidence supporting the analysis of PC roots as quality denoting. Most notably, the same set of markers are used both to cross-reference the subject of inactive predicates and the possessors of nouns. These markers are also used in possessive predication:

- (44) a. *Che-r-a'y* *o-ke.*
B1.SG-R-son A3-sleep
'My son is sleeping.'
- b. *Che-r-a'y.*
B1.SG-R-son
'I have a son.'

Crucially, Koontz-Garboden & Francez (2017) argue that PC lexemes that participate in possessive predication denote qualities rather than sets of individuals. Qualities are modeled as portions of substances, and possessive predication is modeled as ascribing a quality to an individual. If PC roots in Mbyá denote qualities, they cannot be used without adjustments to refer to individuals characterized by the property. To illustrate, *ava* and *kuña* denote instances of the properties of being male and being female, respectively, rather than sets of male and female individuals. We therefore propose that PC concepts must undergo type-shifting in order to refer to sets of individuals. This type-shifting is accompanied by nominalization, which maps modifiers to nouns. We posit that a covert nominalizer QTI is available to this effect, but QTI maps PC-denoting roots to sets of atomic individuals and is furthermore restricted in its output to a subset of human nouns.⁹ To illustrate, the root *ava* (male) is attested with non-human denoting nouns in its use as a modifier (see example (42b)) but only denote human males in its nominal use. We see QTI at play in bare uses of restricted animate nouns with singular reference. The suffix *-kue* is a marked

⁹ This restriction may be an effect of the animacy hierarchy, individuation being cognitively easiest with human referents (Corbett 2000).

nominalizer that maps PC-denoting roots to human-denoting plural nouns. The restriction to human-denoting outputs appears to be lifted with inflected stems, as seen in (43b).

The question remains why restricted animates may combine with numerals or quantifiers without overt plural marking (see examples (8) and (9)). Quantifiers denote relations between sets of individuals and do not require these sets to contain pluralities. As for numerals, we hypothesize that pluralization may be introduced by number words themselves (see Ionin & Matushansky, 2018 and Bylinina & Nouwen, 2018 for different implementations of this idea). For the sake of conciseness, we leave the details of an analysis of Mbyá numerals to future research.

In sum, the reason why restricted animates appear to violate the generalization that Mbyá nouns are number neutral is that they are not nouns in the first place, but PC-denoting modifiers that must undergo nominalization in their referential uses.

To the second question (why is *kuery* used at all with otherwise number neutral nouns?), we can provide two answers. The first one, which Guerrero-Vicente & Ramirez (2020) put forward for Kaiowa *kuera*, is that the use of *kuery* triggers an implicature of strong plurality, which excludes atomic individuals from the denotations of the noun phrase. This implicature is blocked in downward entailing environments, as one would expect. We refer the reader to this work for further detail. The second one is that, in Mbyá, *kuery* also conveys that the individuals in its extension form a socially cohesive group of some sort. It is this additional requirement that, we surmise, is responsible for the incompatibility of *kuery* with inanimate nouns, which by definition cannot participate in social relations.¹⁰ While a detailed study of *kuery* goes beyond the present manuscript,¹¹ we propose to model its denotation as a pluralizing operator that imposes a salient social relation over its output. We formalize this restriction as a presupposition, leaving the justification of this step to future research. In sum, *kuery* is not redundant with the number-neutrality of Mbyá nouns:

$$(45) \quad \llbracket \text{kuery} \rrbracket = \lambda P: \exists \mathcal{G}[\mathcal{G} = \langle P^*, \mathcal{S} \rangle]. P^*$$

Where $\mathcal{S}$ is a contextually salient social relation on a set

We are left with the last of our three questions: why does *kuery* alternate with the suffix *-kue* as a plural marker of restricted animates? If, as we argued, the functional head responsible for nominalizing PC-denoting roots has a null exponent (QTI), and the resulting noun denotes a set of atomic individuals, speakers may elect to pluralize this noun with *kuery*. As a matter of denotations, *-kue* and *kuery* will both produce a set of atoms closed under sum formation. Pluralization with *kuery*, however, will additionally presuppose that this set is structured by a salient social relation. Consequently, we expect *kuery* to be preferred whenever this presupposition is satisfied, which aligns with Dooley's (2006) observations.

¹⁰ There appears to be dialectal variation in this respect. (Thomas, 2020) reports judgments from two Mbyá speakers who judge *kuery* to be acceptable with inanimate nouns, provided the entities in their extension cluster in a noticeable way, such as bananas in a bunch. These two speakers, however, lived in Paraguay, and were thus presumably in significant contact with Paraguayan Guaraní, where *kuery*'s cognate *kuera* is used as a general plural without animacy restrictions.

¹¹ In particular, space limitations do not allow us to discuss associative uses of *kuery* here.

4.2 Reference to kinds and genericity

We are now in a position to discuss the grammar of reference to kinds and genericity in Mbyá. The picture of the language we have arrived at can be summarized as follows:

- (46)
- i. With the exception of PC-derived nouns, Mbyá nouns are number-neutral and number-marking is optional.
 - ii. Bare nouns have definite uses but lack true indefinite uses.¹²
 - iii. All types of bare nominals (number-neutral nouns with or without plural marking, singular or plural nominalized modifiers) license reference to kinds, generic uses, and episodic as well as habitual object level uses.

This constellation of facts is readily explained in a neo-Carlsonian theory in the line of Chierchia (1998) and later revisions by Dayal (2004, 2017). The ingredients of this approach are well known. Kinds are represented as individual concepts of type $\langle s, e \rangle$, the extension of a kind in a world corresponding to the sum of its individual instances. A system of type-shifters map predicates (type $\langle e, t \rangle$) to object-level individuals and kind extensions (type e) or to existential generalized quantifiers (type $\langle \langle e, t \rangle, t \rangle$):

- (47)
- ι : $\lambda P. \iota P$ if there is a unique maximal entity in P , undefined otherwise
 - $^{\cap}$: $\lambda P. \lambda s. \iota P_s$ if $\lambda s. \iota P_s$ is a kind, undefined otherwise
 - $\exists$: $\lambda P. \lambda Q. \exists x [P(x) \wedge Q(x)]$

The use of these type-shifters is subject to a blocking principle, which prevents their use in languages that realize them in their lexicon (so that the existence of the definite article *the* in English blocks the use of the ι shifter). A ranking constraint, which Dayal (2004, 2017) defines as $\{^{\cap}, \iota\} > \exists$, blocks the use of $\exists$ when $^{\cap}$ and ι can apply. Finally, a rule of Derived Kind Predication (DKP) repairs type mismatches that occur when an object-level predicate combines with a kind-denoting term, by existentially quantifying over instances of the kind in the world of evaluation:

- (48) DKP: If P applies to objects and k denotes a kind, then $P(k) = \exists x [\iota k(x) \wedge P(x)]$ ¹³

An important feature of DKP is that the existential readings it derives have obligatory narrow scope, thereby accounting for the narrow scope of pseudo-indefinite uses of bare nouns in languages that lack indefinite articles (Dayal, 2017).

Applying this approach to Mbyá, we can derive generic and kind-level uses of bare nouns as follows:

¹² See section 1.2 and the observation that pseudo-indefinite uses of bare nominals must take narrow scope and must refer maximally, unlike true indefinites.

¹³ The operation ι is the inverse of $^{\cap}$: it maps kinds to properties.

- (49) i. Object-level reference: this is the default, under the assumption that nouns and nominalized PC roots denote sets of object-level entities (type $\langle e, t \rangle$).
- ii. Reference to kinds:
- with number neutral and pluralized nouns, it is generated by applying $\cap$ to a noun of type $\langle e, t \rangle$, whose denotation is closed under sum-formation.
 - with singular nominalized PC roots: following (Chierchia, 1998), it is generated by coercion of the nominal to a mass denotation, and subsequent application of $\cap$.
- ii. Definite object-level reference: generated by applying ι to a noun of type $\langle e, t \rangle$.
- iii. Pseudo-indefinite object-level quantification: generated by DKP.
- iv. Generic uses: are generated by application of a covert generic quantifier over pairs of object-level individuals and situations; like other quantifiers, this operation is compatible with strictly atomic as well as cumulative atomic predicates.

The main point of tension in this picture is the derivation of pseudo-indefinite readings. DKP accounts for their obligatory narrow scope, but it does not explain their maximalized reference (cf. example (7) in section 1.2). Dayal (2017) resolves this tension by arguing that there are constraints on the contexts in which DKP may apply to bare nominals: objects of transitive verbs and subjects of existential sentences are the main environments in which we expect to observe pseudo-indefinite uses of bare nouns. Competition with indefinite marking by unit numerals (like *peteĩ* in Mbyá) may further constrain the availability of DKP. We leave a detailed investigation of such issues in Mbyá to future research.

Finally, we close this section by noting that the account of generic uses and reference to kinds we have arrived at is essentially the same as Guerra-Vicente & Ramires's (2024) analysis of these phenomena in Kaiowa, with due allowance for micro-variation in the grammar of plurality (cf. our discussion of *-kue* and the group-like quality of plurals former with *kuery* in Mbyá) and indefiniteness (it remains an open question whether Guaraní languages differ with respect to the contexts that license pseudo-indefinite uses of bare nominals). We see this as a virtue of this analysis.

References

- Bylinina, L., & Nouwen, R. (2018). On “zero” and semantic plurality. *Glossa: a journal of*, 3(1), 1-23.
- Chierchia, G. (1998). Reference to kinds across languages. *Natural Language Semantics*, 339-405.
- Chierchia, G. (2010). Mass nouns, vagueness, and semantic variation. *Synthese*, 174, 99-149.
- Dayal, V. (2004). Number marking and (in)definiteness in kind terms. *Linguistics and Philosophy*, 27(4), 393-450.
- Dayal, V. (2014). Bangla plural classifiers. *Language and Linguistics*, 15(1), 47-87.
- Dayal, V. (2017). Determining (In)definiteness in the Absence of Articles. In V. Hohaus, & W. Rothe (Ed.), *Proceedings of TripleA* (pp. 85-99). Tübingen: Universitätsbibliothek Tübingen.
- Dayal, V. (2019). 5. Bare noun phrases. In P. a. Portner (Ed.), *Semantics - Noun Phrases and Verb Phrases* (pp. 149-176). Berlin, Boston: De Gruyter Mouton.

- Dooley, R. (2011). *Mbyá Guaraní Collection of Robert Dooley*, PID:119734. Retrieved 12 28, 2025, from The Archive of the Indigenous languages of Latin America: ailla.utexas.org
- Dooley, R. (2016). *Léxico Guaraní, Dialeto Mbyá*. Associação Internacional de Linguística – SIL Brasil.
- Duarte, D. (2013). *Vera Guachu Ayu Añetêgua*. (E. a. Knoop, Ed.)
- Grupioni, L. D. (2007). *Nhandereko nhemombe'u tenonderã=Histórias para contar e sonhar*. Secretaria Municipal de Educação de São Paulo.
- Guerra-Vicente, H., & Ramires, D. (2020). Dois tipos de plural nominal em Kaiowá (Tupí-Guaraní). *Anais do XXXV Encontro Nacional da ANPOLL*. (pp. 373-381). Londrina: ANPOLL.
- Guerra-Vicente, H., & Ramires, D. (2024). (In)definitude, número e implicatura de multiplicidade em uma língua sub-representada: um estudo do Kaiowá (Tupí-Guaraní). *Gragoatá*, 1-27.
- Guerrera-Vicente, H., & Ramires, D. (2020). Plurals in Kaiowá and the case for obligatory implicatures. *Cadernos de Estudos Linguísticos*, 1-25.
- Haspelmath, M. (2013). *Occurrence of Nominal Plurality*. (M. a. Dryer, Ed.)
doi:<https://doi.org/10.5281/zenodo.13950591>
- Ionin, T., & Matushansky, O. (2018). *Cardinals*. MIT Press.
- Koontz-Garboden, A., & Francez, I. (2017). *Semantics and morphosyntactic variation*. Oxford University Press.
- Ladeira, M. I. (2018, March 26). *Guaraní Mbyá*. Retrieved from Povos Indígenas no Brasil: https://pib.socioambiental.org/en/Povo:Guarani_Mbya
- Landman, F. (1989). Groups I. *Linguistics and Philosophy*, 559-605.
- Lazaridou-Chatzigoga, D., Husband, E. M., Lima, S., & Stockall, L. (2025). *Investigating generics across languages: A toolkit*. Open Science Framework. Retrieved from <https://doi.org/10.17605/OSF.IO/3QW5S>
- Navarro, M. A. (2024). Quantization and Quantification: Countability and the Scope of Bare Nouns in Kaingang and Beyond. University of British Columbia.
- Pearson, H. (2011). A New Semantics for Group Nouns. In M. Byram (Ed.), *Proceedings of the 28th West Coast Conference on Formal Linguistics* (pp. 160-168). Somerville, MA: Cascadilla Proceedings Project.
- Queixalós, F. (2006). The primacy and fate of predicativity in Tupi-Guaraní. In X. a. Lois (Ed.), *Lexical categories and Root Classes in Amerindian Languages* (pp. 249-288). Bern: Peter Lang International Academic Publishers.
- Thomas, G. (2020). Countability in Mbyá. *Linguistic Variation*, 288–299.
- Veríssimo, A. T. (2002). *Opa Mba'e Re Nhandembo'e Aguã=Livro do aluno na língua Mbyá Guaraní*. Laranjeiras do Sul: Nhombo'ea Guaraní: Mundo Indígena.

