Functions and systems of nominal classification in Kubeo

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Kubeo language

- Eastern Tukanoan
- About 8000 speakers
- Varried degree of endangerment

Data
- Fieldwork since 2008
- Spontaneous speech
- Elicitation
- Written texts
Goals

1. Overview of the functions of nominal classification system from lexicon to discourse

2. Discuss the grammatical organization of two distinct systems of classifiers and gender which have independent as well as overlapping functions

3. Contextualize Kubeo data within a typology of nominal classification
Functions of nominal classification

- **Reference building**
  - *individuation*: presence or absence of NC morpheme specific reference
  - *categorization*: denotation of semantic features of nouns and nominal referents
  - *re-categorization*: addition or alteration of a semantic feature to a nominal referent

- **Reference management**
  - cross-indexation
  - canonical agreement
The use of NC morphemes function as a way to express the individuation of discourse referents.

- NON-REFERRING
- NON-SPECIFICALLY REFERRING
- SPECIFICALLY REFERRING

Absence of NC morphemes

Presence of NC morphemes
Individuation

Non-referring nouns
- Nouns as modifiers of other nouns in compounds
- Incorporated nouns
- Generic nouns in negated predicates

yì antryňui-offset boabete, heme=bo-re boawì yì
tsg curassow kill-NEG-PST paca=CL-n.nom kill tsg

‘I did not kill a curassow but I killed a paca’
<table>
<thead>
<tr>
<th>Gender</th>
<th>Masculine</th>
<th>Feminine</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animate</td>
<td></td>
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<tr>
<td>Inanimate</td>
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</tbody>
</table>
### Animate vs. Inanimate

- **Animate number vs. Inanimate number**
  - Different morphemes
  - Different semantics

<table>
<thead>
<tr>
<th>Animate</th>
<th>Inanimate</th>
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<tbody>
<tr>
<td>pɨká-râ</td>
<td>pɨká</td>
</tr>
<tr>
<td>two-AN.PL</td>
<td>hârâwì</td>
</tr>
<tr>
<td>‘two tapirs’</td>
<td>‘two days’</td>
</tr>
<tr>
<td>wekí-wà</td>
<td>pɨká</td>
</tr>
<tr>
<td>tapir-AN.PL</td>
<td>hârâwì-a</td>
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</tr>
</tbody>
</table>
Animate vs. Inanimate

- Animate copula vs. Inanimate copula cross-indexing
  - Animate 3.sg vs. Inanimate 3.sg

ǐ ṗami-ki-be
3.sg kubeo-MSC-COP.3AN.SG
‘he is a kubeo man’

na ṗami-wa-mu
3.pl kubeo-AN.PL-COP.3.N.AN.SG
‘they are Kubeo’

yo ṗie-bu
this basket-COP.3.N.AN.SG
‘this is a basket’
### Gender categorization

<table>
<thead>
<tr>
<th>Pami-kı</th>
<th>MSC</th>
<th>‘Kubeo male person’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pami-ko</td>
<td>FEM</td>
<td>‘Kubeo female person’</td>
</tr>
<tr>
<td>Pami-wa</td>
<td>AN.PL</td>
<td>‘Those Kubeo persons’</td>
</tr>
<tr>
<td>Pami-a*</td>
<td>IN.PL</td>
<td>‘Kubeos’</td>
</tr>
<tr>
<td>Pami-no</td>
<td>IN.CNT</td>
<td>‘That thing of the Kubeos’</td>
</tr>
<tr>
<td>Pami-e</td>
<td>IN.COL</td>
<td>‘Those things of the Kubeos’</td>
</tr>
</tbody>
</table>
Classifiers

- 16 monosyllabic enclitics
- Physical properties
  - Shape
  - Dimension
  - Size
- Functionality

<table>
<thead>
<tr>
<th>Classifier</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>=ba</td>
<td>Intersect</td>
<td>=me</td>
<td>1D thin</td>
</tr>
<tr>
<td>=bi</td>
<td>Container</td>
<td>=mu</td>
<td>1D thick</td>
</tr>
<tr>
<td>=bo</td>
<td>Bulky</td>
<td>=ñi</td>
<td>Palm, Hollow</td>
</tr>
<tr>
<td>=do</td>
<td>Concave</td>
<td>=wa</td>
<td>2D Wide</td>
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<tr>
<td>=di</td>
<td>Circular</td>
<td>=we</td>
<td>2D Long</td>
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<tr>
<td>=ka</td>
<td>Amorphous</td>
<td>=ya*</td>
<td>River</td>
</tr>
<tr>
<td>=ki</td>
<td>Tree</td>
<td>=yami*</td>
<td>House</td>
</tr>
<tr>
<td>=kũ</td>
<td>Convex</td>
<td>=yo</td>
<td>1D pointed</td>
</tr>
</tbody>
</table>
Classifiers with Animate nouns

- **heme=bo**  
  ‘paca’  
  - 3D.BULKY

- **oño=ri**  
  ‘bat’  
  - 3D.ROUNDISH

- **mimi=yo**  
  ‘hummingbird’  
  - 2D.POINTED
<table>
<thead>
<tr>
<th>Classifier</th>
<th>Description</th>
<th>Image</th>
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<th>Description</th>
<th>Image</th>
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</thead>
<tbody>
<tr>
<td>ũe=ka</td>
<td>‘human nose’</td>
<td><img src="image1.jpg" alt="Human Nose" /></td>
<td>ũe=ðo</td>
<td>‘rat nose’</td>
<td><img src="image2.jpg" alt="Rat Nose" /></td>
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<tr>
<td>ũe=mu</td>
<td>‘dog nose’</td>
<td><img src="image3.jpg" alt="Dog Nose" /></td>
<td>ũe=bo</td>
<td>‘pig nose’</td>
<td><img src="image4.jpg" alt="Pig Nose" /></td>
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<tr>
<td>ũe kobe</td>
<td>‘nosetrills’</td>
<td><img src="image5.jpg" alt="Nosetrills" /></td>
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</tbody>
</table>
Emu
‘The howler monkey’

maka-rō-i  ku-amē  emū
jungle-in.cnt-loc  live-3msc  howler.monkey
‘in the jungle leaves the howler monkey’

ura-ku  ba-ame  ū
big-msc  be-3msc  3sg
‘he is a big one’

Hoku=kū  ura=kū-i-ta  upa-iy-ame  ū  ēmū.
tree-cl.vert  big-cl.vert-loc-foc  sing-st-3msc  3.sg  howler.monkey
‘at the tall trees he sings, the howler monkey’

poē-wa  boa-rī  hatuo-rī  ā-i-mu  ma-amē  ū
person-pl  kill-cnv  cook-cnv  eat-st-pass.msc  be-3msc  he
‘he is eaten by people (who) kills and cook (him)’
Synthesis table of both systems

<table>
<thead>
<tr>
<th></th>
<th>Noun</th>
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<th>Non-finite verbs</th>
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</tbody>
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- SG vs. PL
- MSC vs. FEM
- Classifiers
Animate cross-indexing

Controller Noun | NP&Predicate | Copula
---|---|---
Ø | MSC | AN.SG
MSC | MSC | AN.SG
CL | FEM | Syncretic
FEM | AN.PL | ...
AN.PL | INANIMATE | ...
Inanimate cross-indexing

**Controller Noun** | **NP** | **Non-finite_V** | **N.Pred** | **Copula & Finite_V**
---|---|---|---|---
SG | -rõ | -rõ | -rõ | -rõ | (Inanimate)
ø | | | Repeater | | |
CL | | CL | CL | | |
PL | -a | | | | |
COL | -e | -e | -e | | |
MASS | Ø | | | | |
Inanimate cross-indexing

Controller Noun | NP | Non-finite_V | N.Pred | Copula & Finite_V
---|---|---|---|---
SG | -rõ | -rõ | -rõ | -rõ
Ø | | | | |
CL | | Repeater | | |
PL | -a | | | |
COL | -e | -e | -e | |
MASS | Ø | | | |

(Inanimate)
Cross-indexing and Reference building contrasting Classifiers and Inanimate (Gender) markers

CLASSIFIERS vs. IN.CNT vs. IN.COL

- less canonical gender
+ reference building

+ more canonical gender
- reference building
S: ibenita alas kirõtam.  
‘unfortunately, it has wings’

yi pikarõ-ata mino-a maredemusawi
‘I used only two of yours’

ãme bahu báte(wi)iko die miye
‘those yours were awful!’

A: aru keda?
‘and why?’

S: eduriwe-a báke
‘they were really hard’

A: nire diepe paiyeta maiwi me
‘for me the ones of this kind are good’

S: meameteawĩ yire, yaridiwe-a báke
‘they were not good for me, the ones which were flat ones’
Inanimate cross-indexing

NP & Predicate

CL / IN.PL

ñamu=ka  hoai=ka  korahi-e
potatoe=cl.amorph  roast=cl.amorph  be.stinky-in.col
‘the roasted potatoes are stinking’
Inanimate cross-indexing

NP & Predicate

CL / IN.PL

ñamu=ka  hoai=ka  korahi-e
potatoe=cl.amorph  roast=cl.amorph  be.stinky-in.col
‘the roasted potatoes are stinking’

[[[NOUN] MODIFIER] PREDICATE]
### Variable classification patterns with borrowings

<table>
<thead>
<tr>
<th>N</th>
<th>DET</th>
</tr>
</thead>
<tbody>
<tr>
<td>ani=yo</td>
<td>pereku=yo</td>
</tr>
<tr>
<td>ani=dɨ</td>
<td>pila / mutãu</td>
</tr>
<tr>
<td>ano</td>
<td>camiça</td>
</tr>
<tr>
<td>ano / ani=bɨ</td>
<td>rata</td>
</tr>
</tbody>
</table>

- ** ani=yo: ‘this nail’
- ** pereku=yo: ‘this nail’
- ** ani=dɨ: ‘this battery / button’
- ** pila / mutãu: ‘this battery / button’
- ** ano: ‘this shirt’
- ** camiça: ‘this shirt’
- ** ano / ani=bɨ: ‘this can’
- ** rata: ‘this can’
Different targets, different indexing patterns

\[ \text{CL 1} \rightarrow \text{CL 2} \rightarrow \text{IN.SG} \]

- **kira=ku**
  - mountain=CL.CNVX

- **bokomi=yo**
  - termite=CL.2D.POINTED

- **amiki-rob-re**
  - be.called-in.cnt-n.nom

- **ne nakowai-no maka-rob-ɾẽ koyikiwi**
  - their emergence-IN.CNT was-IN.CNT I will tell

‘I will tell about how they erected the mountain called ‘Termite-cone’
kira=kũ
mountain=CL.CNVX
termite=CL.2D.POINTED
be.called-in.cnt-n.nom

ne
their

nakowai-no
emergence-IN.CNT

maka-rõ-rẽ
was-IN.CNT

koyikiwĩ
I will tell

Mountain

Pointed (toponym)

Inanimate
e

‘I will tell about how they erected the mountain called ‘Termite-cone’
Inanimate Gender vs. Classifier

ø \rightarrow \text{-rō / CL}

\text{pãuboka} \quad \text{buru-i=} \text{no} \quad \text{ta} \quad \text{mu}

rope \quad \text{break-st-in.cnt} \quad \text{foc} \quad \text{cop}

‘the rope is breaking!’

\text{haweta} \quad \text{buru-i=} \text{me} \quad \text{ta} \quad \text{mu}

already \quad \text{break-st-cl.line} \quad \text{foc} \quad \text{cop}

‘the rope is about to break!’
Inanimate cross-referencing

Inanimate Gender vs. Classifier
$\emptyset \rightarrow \text{-rō / CL}$

Endophoric reference

Exophoric reference

$pãuboka$  buru-i=$\text{no}$  ta  mu
rope    break-st-in.cnt  foc  cop
‘the rope is breaking!’

$haweta$  buru-i=$\text{me}$  ta  mu
already  break-st-cl.line  foc  cop
‘the rope is about to break!’
Inanimate cross-referencing

Contrastive semantics of categorization patterns

\[\text{\=er̃=\=ni} \quad [\text{pupunha=cl.palm}] \quad [\text{hi hio-ka=\=ni}] \quad \text{‘the pupunha tree from my garden’}\]

\[\text{\=er̃=\=ni} \quad [\text{pupunha=cl.palm}] \quad [\text{hi hio-ka=rõ}] \quad \text{[my garden-from=IN.CNT]}\]

\[\text{\=er̃=\=ni-a} \quad [\text{pupunha=cl.palm}] \quad [\text{hi hio-ka=e}] \quad \text{‘the pupunha trees from my garden’}\]

\[\text{\=er̃=\=ni-a} \quad [\text{pupunha=cl.palm-IN.PL}] \quad [\text{hi hio-ka=\=ni-a}] \quad \text{‘the pupunha trees from my gardens’}\]
Inanimate cross-referencing

Contrastive semantics of categorization patterns

IN.SG and CL are not equivalent within the same paradigm

\[ [\text{ire}=\tilde{n}i] \]
\[ [\text{pupunha}=\text{cl.palm}] \]
\[ [\text{hi hio-ka}=\tilde{n}i] \]
\[ [\text{my garden}=\text{from}=\text{cl.palm}] \]

\[ [\tilde{\text{ire}}=\tilde{\text{n}}i] \]
\[ [\text{pupunha}=\text{cl.palm}] \]
\[ [\text{hi hio-ka}=\tilde{r}o] \]
\[ [\text{my garden}=\text{from}=\text{IN.CNT}] \]

\[ [\tilde{\text{ire}}=\tilde{n}i-a] \]
\[ [\text{pupunha}=\text{cl.palm}] \]
\[ [\text{hi hio-ka}=\text{e}] \]
\[ [\text{my garden}=\text{from}=\text{IN.COL}] \]

\[ [\tilde{\text{ire}}=\tilde{n}i-a] \]
\[ [\text{pupunha}=\text{cl.palm-IN.PL}] \]
\[ [\text{hi hio-ka}=\tilde{n}i-a] \]
\[ [\text{my garden}=\text{from}=\text{cl.palm-IN.PL}] \]

IN.SG and CL semantically contrast
Final remarks

● **Gender**
  ○ used as noun formatives
  ○ small number of classes
  ○ animacy and sex
  ○ all nouns have a gender
  ○ greater number of targets
  ○ **reflects a semantic feature**
  ○ more properties of canonical agreement
  ○ 1 to many of meaning and form pairing

● **Classifiers**
  ○ used as noun formatives
  ○ larger number of classes
  ○ physical and functional properties
  ○ not all noun has a matching classifier
  ○ lesser number of targets
  ○ **reflects, alter or add a semantic feature**
  ○ fewer properties of canonical agreement
  ○ 1 to 1 of meaning and form pairing

● **Organization**
  ○ single paradigm: noun formatives
  ○ complementary distribution: adjective vs. predicate
  ○ overlapping paradigms: some NP modifiers
Final remarks:
Typology

Mixed systems of classifiers and noun classes? (Derbyshire and Payne 1990)
- Two systems: classifiers and gender
- Different historical origin, different semantic and distributional patterns
- Overlapping cross-indexing function

Less grammaticalized systems of noun classes? (Grinevald and Seifart 2004)
- yes, for classifiers, but gender is quite grammaticalized

General and specific class markers? (Seifart 2005, Gomez-Imbert 2007)
- not across the board
- classifiers and gender contrast in certain positions, can be used interchangably or is in complementary distribution

Multi-functional, multiple classifier type (Aikhenvald 2000, Krasnoukhova 2012)
- Noun Formatives, Cross-indexes
- NP heads, nominalizers
References

Classifier Recategorization

Diminutive changing the classifier

- aru ìi kìrāmi hīe? parami=wa bákā-rō?
  ‘what about his house stuff? The old toaster?’

- di=wa parami=hī=di baka-rō-rē hawe Demu īkemawī
  ‘that old little toaster, Demu has taken (it) already’

=wa    Wide
=di     Circular
Inanimate cross-referencing

**NP**

**CL → CL**

\[i=\textbf{di-a} \quad \text{biki pora}=\textbf{di-a} \quad \text{toi-di}=\textbf{di-a} \quad \text{ta arehaima}^\text{a}\]

‘(Our ancestors) used to make these painted house posts’

\[\varnothing \rightarrow \text{repeater}\]

\[i \text{ ma ma-re me i}^\text{rah}^\text{i} \text{ ma ar}^\text{a}^\text{h}^\text{i}^\text{de}\]

‘this path must be enlarged’
Inanimate cross-referencing

Contrastive semantics of categorization patterns

\[ \text{hoku} = \underline{ku-a} \quad \text{koeki} = \underline{ye} \]
‘the trees that will be cut (some of the trees)’

\[ \text{hoku} = \underline{ku-a} \quad \text{koeki} = \underline{ku-a} \]
‘the trees that will be cut (all trees)’