

The discourse functions of Mojeño Trinitario classifiers in verbs

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Mojeño Trinitario

- Arawak, Lowland Bolivia
- Linguistic description
 - Dictionary (Gill 1993)
 - Handbook (Gill 1957)
 - Grammatical sketch (Rose 2015)
 - Papers <http://www.ddl.cnrs.fr/Rose>
- Documentation <https://www.ortolang.fr>

Methodology

- Observation of the data
 - 6 hours of (semi)-spontaneous texts
 - 2 hours of stimuli-based sentences
 - 4920 elicited sentences
- Counts of classifiers in a text sample
 - 7 texts of different genres
 - 520 sentences
 - 175 occurrences of classifiers
- Counts of Referential Distance and Topic Persistence ([Givón 1983](#))

Mojeño Trinitario classifiers

- 31 classifier suffixes
 - Some have two allomorphs: stem-internal and stem-final
- One set with large distribution
 - = multiple classifier system (Aikhenvald 2000)
 - On numerals
 - On adjectives
 - On nouns
 - On verbs
- Verbal classifiers
 - Classifiers on verbs
 - Categorize a nominal element

Mojeño Trinitario classifiers

- The classifiers categorize the referent, not the noun.
 - The same noun can be assigned to various classes.
 - Highlight some inherent or temporary property of the referent.

(1) *t-ító-gi* *to* *wkugi*
3-be_bare-**CLF:cyl** ART.NH tree
'The trunk of the tree is bare.' elicited

(2) *t-ító-si* *to* *wkugi*
3-be_bare-**CLF:sphere** ART.NH tree
'The crown of the tree is bare.' elicited

Mojeño Trinitario classifiers

- Cannot stand as the head of an NP, contrarily to nouns (Rose & Van linden submitted)
- Most have a CV structure
- General semantics (physical properties like shape, interiority, consistency,...)

Table 1. Selection of CLF with gloss and definition

<i>-na</i>	CLF.hum	human
<i>-gi</i> <i>-gie</i>	CLF.cyl	1D, cylindrical
<i>-mo</i> <i>-me</i>	CLF.fabric	2D, flat, large and generally flexible
<i>-si</i>	CLF.sphere	3D, sphere
<i>-omo</i> <i>-e</i>	CLF.liquid	liquid
<i>-ku</i>	CLF.path	space between parallel boundaries
<i>-muri</i>	CLF.group	group

Classifiers on verbs

- Associated participant

Table 2. Syntactic function of participant associated with CLF on V

	Mojeño	Typology
S of intransitive verbs	22%	Cross-linguistically common
O of transitive verbs	45%	
Obliques	23%	Rarely described

+ Applicative function: promoting an oblique as a core argument

(Rose 2020)

- Human classifier not found on active verbs.

Other nominal categorization

- Gender marking in person formatives in:
 - Articles
 - Pronominal pronouns
 - Demonstratives
 - Person indexes
- Interactions
 - In an NP, ART + CLF possible
 - In a V, person indexes + CLF possible

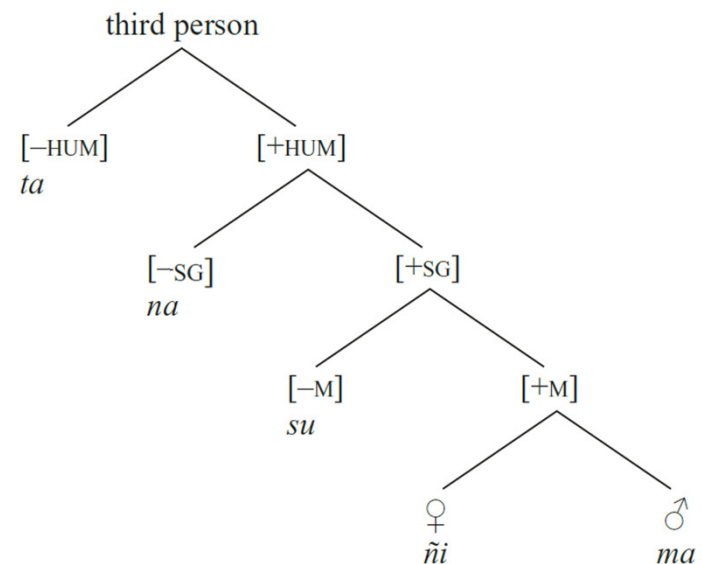


Fig. 1: Semantic sub-categorization of third person.

Functions of verbal classifiers

Functions of classifiers

- Why this question?
 - Classifiers are not obligatory (except on numerals)
 - Found in 34% of the sentences in the sample
- Why on verbs ?
 - Half of the occurrences of classifiers are found on verbs in the sample
 - Less discussed in the literature

Functions of classifiers

- Categorization is not their primary function (François 1999)
- Functions of classifiers (Contini-Morava and Kilarski's 2013)
 - Semantic functions (Rose & Van linden submitted)
 - Derivation (common in South America (Krasnoukhova 2012))
 - Only 4% of V-CLF in the sample
 - Differentiating referents & ascribing properties (=qualification)
 - Individuation
 - Discourse functions
 - Reference management
 - Referent identification
 - Re-presentation of referents.
- "The primary function of a noun classification system may be related to **discourse level participant reference**" (Payne 1987)
 - But discourse issues not often investigated in detail

1- Reference management

How are classifiers used in the management of reference (i.e. definiteness, persistence, or prominence in discourse)?

Reference management

- Reference management functions of
 - Verbal classifiers with an associated noun (S, O or Obl)
 - Verbal classifiers without an associated noun (S, O or Obl)
- Counts of Referential Distance & Topic Persistence on:
 - N
 - CLF+N
 - CLF

Reference management

- Referential Distance

- Number of clauses to the left, to the previous occurrence of the referent, overtly marked (Givón 1983)

Table 3. Referential distance of different referential expressions

	average RD	median RD
N	12,69	20,00
CLF+N	10,83	9,5
CLF	7,55	3

- CLF used more often than N for participants that are given, and used more often alone when participants have been mentioned recently

Reference management

- Topic Persistence

- Number of clauses to the right, in which the participant continues an uninterrupted presence as a semantic argument of the clause, marked overtly or not. (Givón 1983)
- Comparable in the three constructions

Table 4. Topic persistence of different referential expressions

	average TP	median TP
N	0,94	0
CLF+N	1,28	0,5
CLF	1,24	0,5

- Degree of topicality not relevant (?)

Reference management with an associated NP

- Functions:

- First mention of a participant

(3) *t(a)-appú-'e-ko* *pjuena* *s-ju'e* **CLF=S**
3NH-swell-**CLF:convex**-ACT DEM 3F-stomach
'Her stomach swelled.' T_12_009

- New mention of an old participant

(4) *ta-ni-k-'o* *to* *'santi* **CLF=O**
3NH-burn-**CLF:path**-ACT ART.NH field
'It (the fire) burns the field.' T_21_032

2- Referent identification

When the associated noun is not expressed within the same sentence, how does the classifier help identifying the referent ? Or disambiguating between potential referents ?

Referent identification

- Important question
 - 80% of V-CLF without associated noun
- The classifier participates in referent retrieval by:
 - Inference on the situation within the discourse
 - Inference on the speech event
 - Interpretation as a kind, or as a prototype
 - Disambiguation between potential referents

Referent identification 1-Inference on the situation

- Straightforward cases of anaphora

(7) *pjor-jo-jno* *parawa-tataji*, *w-cho-'i-gi-a* *v-ni-gi-a.*
DEM-EXI-again ara-DESP 1PL-pluck-CLF:fruit-ACT-IRR 1PL-eat-ACT-IRR

w-cho-'i-gi-a=a'i=ni *v-ijro-k-a=ri'i=ni* *psuro wrinko*
1PL-pluck-CLF:fruit-ACT-IRR=IPFV=FRUST 1PL-eat-ACT-IRR=IPFV=FRUST DEM gringa

'There again is this fucking ara, we should pluck it and eat it. If we had plucked it, we would have given it to that foreign woman (for her to eat it so that she becomes talkative).' T_29_049/050

Referent identification 1-Inference on the situation

- Cases without overt antecedent
 - Inference on the situation within the discourse

(8) *t-kucho-ku-'-a-vi*

3-wait-**CLF:path**-ACT-IRR-1PL

'It is waiting for us (on the path).' [trip in the forest] T_30_052

Referent identification 1-Inference on the situation

- Or inference through metonymy (bridging or indirect metaphora)

(9) *ene t-ko-siop-si-k-wo=po* *ta-ye'e.*
and 3-CAUS-enter-**CLF:sphere**-ACT-MID=PFV 3NH-PREP
'And it (the dog) put its head into it.' T_18_015

Referent identification 2- Exophoric retrieval

- Referent located deictically in the context of the speech event

(10) *v-eja-pue-gi-a*

1PL-sit-**CLF.ground**-ACT-IRR

'Let's sit on the ground!' T_24_099

Referent identification 3- Retrieval as ‘kind’ or prototype

- Translation task of classifiers → prototypical members of the class, depending on the lexical verb.

(12) *s-an-ku-'o*

3F-cross-**CLF:path**-ACT

‘She is crossing a river, a street.’

(13) *na-ech-ku-'=po*

3PL-cut-**CLF:path**-ACT=PFV

‘They cut down (forest into a field).’

(14) *n-siop-ku-'o*

1SG-enter-**CLF:path**-ACT

‘I enter an empty house.’

(15) *n-ko-sip-ku*

1SG-MID-wash-**CLF:path**

‘I wash my vagina.’

Referent identification 4- Disambiguation between potential referents

- (16) *ajta to ñ-ichmoo=po toj ñi-jii-si-k=pu=iji*
until ART.NH 3M-meet=PFV gulp 3M-swallow-**clf:sphere**-ACT=PFV=RPT
‘[He (the rooster) searched (the cricket) into the corn husks, it says,] until he
succeeded and “gulp” swallowed **it(spherical=insect)**, it says.’ T_35.062

3- Re-presentation of referents

How are classifiers used in giving different representations of the same referent ?

Re-presentation of referents

- The same referent may be categorized differently.
- Recategorization within the discourse:
 - When the physical properties of the referent evolve through time
 - When the speaker adopts a different perspective on the same referent.

Re-presentation of referents

(17) *n-escho* *to* *sawari-omo*, *éto-na* *kchara*
1SG-give_drink ART.NH tobacco-CLF:liquid one-CLF:hum spoon

to *sawari-omo* [*to* *n-nu-j-re*]_{REL}
ART.NH tobacco-CLF:liquid ART.NH 1SG-chew-CLF:amorph-PAT.NZ

'I gave her to drink some tobacco juice, one spoon of tobacco, the one that I had chewed.' T_12_014

Transformation of the referent

Re-presentation of referents

(18) *n-om-a* *jmani* *pak-tataj-ono* *t-ijane-mo-no* **Perspective shift**
1SG-take-IRR DEM dog-DESP-PL 3-stink-**CLF:abric**-PL
'They (the men) could take (for a hunt) these fucking (skinny) dogs that stink.' 29.042

29.043: 'Here they don't do anything, this is why they (the men) would have shaken them (the dogs) up there.'
[dogs referred to with *-mo* classifier for dogs]

29.044 'They (the dogs) are here lying next to us, we never eat what they hunt.'
[dogs referred to with subject person prefixes on verbs]

eto n(a)-om-muu-'-a=a'i=ni

3NH 3PL-take-**CLF:group**-ACT-IRR=IPFV=FRUST

'They (the men) could have taken the dogs (as a group).' T_29_045

Functions of classifiers on verbs - Summary

- Not an agreement system
 - Not obligatory
 - Selection by the speaker
 - Use for discourse management
- Functions of classifiers on verbs:
 - The discourse functions of classifiers are most salient on verbs
 - Derivational function on verbs not very important
 - Discourse functions and qualification of referent done simultaneously.

Abbreviations

ACT	active	IPFV	imperfective
ART	article	IRR	irrealis
CAUS	causative	MID	middle
CLF	classifier	NH	non-human
DEM	demonstrative	PFV	perfective
DESP	despective	PL	plural
DIM	diminutive	PLURACT	pluractional
EXI	existential	PREP	preposition
F	feminine (singular)	SG	singular
FRUST	frustrative	PAT.NZ	patient nominalizer
GPN	generic possessive noun		

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Appendix

Nominal FR1 classification

- Main differences with nouns:
 - Most have a CV structure (nouns are minimally bisyllabic)
 - Cannot stand as the head of a NP
 - « repeaters » are considered as plain nouns
 - More general semantics (physical properties like shape, interiority, consistency, quanta)
- Similarities with nouns
 - Comparable distribution on nouns, adjectives, numerals and verbs (suffixation vs. compounding)
 - Some formal and semantic resemblance for a minority of classifiers
 - pewo'u CLF:hand pewo'u 'span' (measure unit with hand)
 - gi CLF:cylindrical -gira 'seed'

Diapositive 36

FR1

autre idée: mettre CV et sémantisme dans diapo suivante et pas argumenter pour la classe de CLF

Françoise Rose; 05/04/2019

Classifiers in discourse

- Great variation in the use of classifiers
 - From 8% to 60% of the sentences per text
- Variation could be due to genres, or speakers, or topics...
 - Each text in the sample from a different speaker
 - Narrations: 24% and 27%
 - Expository texts: 60% and 63%
 - Conversations: 8%, 14% and 38%

Classifiers vs. bound nouns

- Classifiers are commonly assumed to originate in nouns (Aikhenvald 2000)
 - more specifically in compounds (Seifart 2010)
 - and noun incorporation (Mithun 1986: 395).
- 16 classifiers are not obviously related to a noun
- 1 classifier reconstructed for Proto-Arawak as classifier and noun
pi 'CLF:long.thin.flexible; snake' (Payne 1991b: 248)
- 11 classifiers show a formal and semantic relationship to a N

Classifiers vs. bound nouns or repeaters (Cf. Rose & van Linden)

(1) <i>no</i> ART.PL	<i>api-na-no</i> two-CLF:h-PL	<i>'chañ(e)-ono</i> person-PL	NUM-CLF	(5) <i>api-pgienu</i> two-neck		NUM-N
(2) <i>to</i> ART.NH	<i>yuk-pi</i> fire-CLF:rope		N-CLF	(6) <i>to</i> ART.NH	<i>manka-chpu</i> mango-trunk	N-N
(3) <i>to</i> ART.NH	<i>chope-gie</i> big-CLF:cyl	<i>wkugi</i> tree	ADJ-CLF	(7) <i>'chope-tupara'o</i> big-charge		ADJ-N
(4) <i>n-semo-pi-ko</i> 1SG-be_angry-CLF:rope-ACT			V-CLF	(8) <i>t(i)-v(e)-o'i-ri-ko</i> 3-take_out-fruit-PLURACT-ACT		V-N

Classifiers vs. bound nouns

	N	CLF	
as NP head	✓	✗	
on numerals	✓	✓	
on adjectives	✓	✓	
on nouns	✓	✓	+ qualifying function of CLF
in verbs	✓	✓	+ Type III & IV with CLF (Mithun 84)

- Classifiers generally have a more general meaning than nouns.

Functions of classifiers on numerals

Functions of classifiers on numerals

- Obligatory on numerals, whatever their function: as modifiers, as NP heads (in absence of associated noun), as predicates or in the counting routine.

(1) *en-jo* *no* *apí-na-no* *'chañ-ono*
3PL-COP ART.PL two-CLF:hum-PL person-PL
'There are two persons' Traj_M_11

(2) *no* *sinkó-na-no* *t-yono-no...*
ART.PL five-CLF:hum-PL 3-go-PL
'The five (persons) go....' Traj_S_19

Functions of classifiers on numerals

- Looks like agreement
- Except that the human classifier is used as a default classifier: no categorization in spontaneous speech

(1) *ty-juu-ko-po* *ta-ke-ripo* *et-na* *añu,* *api-na* *añu.*
3-grow-ACT-PERF 3NH-be_so-PERF one-CLF:gen year two-CLF:gen year
'It grows, it is like that one year, two years.' 21.057

(2) *to* *v-giekrupe* *mopo-na.*
ART.NH 1PL-spirit three-CLF:hum
'Our spirits (ghosts) are three.' 30.113

Functions of classifiers on numerals

- Also found in the absence of the associated noun
 - Actually as frequent in texts with and without the noun
 - No syntactic agreement (no antecedent in case of new participant)
 - But no ambiguity because of the role of articles in gender marking

ene takepo ñi-ke=pu=iji *ñi éto-na*
and after 3M-say=PFV=RPT ART.M one-**CLF:hum**

« ... *n-kopa-ko=yre ta-yampane to éto-na* »
1SG-kill-ACT=FUT 3NH-do_not_matter ART.NH one-**CLF:def**

‘And after that, one of them said: “[...] I am going to kill whatever it is” 19.020

Functions of classifiers on numerals

- Expected combinations with full paradigm easy to elicit
- Only three instances of classifiers other than *-na* in the corpus

(1) *t-roto-wo* *to (...)* *ta-vehti-k-pu-iji* *to* *eto-pi*
3-succeed-MID ART.NH 3NH-detach-ACT-PERF-REP ART.NH one-**CLF:rope**

manje'e *ta-ettit-i'o-o'i*
um... 3NH-tie-APPL-IPFV

Ils arrivèrent à détacher la corde. {texte6.028} (because of hesitation?)

Functions of classifiers on numerals

(2) *ty-ute-k=po eto sera 'attaji, to sera=ri'i api-mri*
3-come-ACT=PFV 3NH silk fabric, ART.NH silk=IPFV two-**CLF:group**

The silk arrived, the silk was of two types. 25.089 (as a measure term)

(3) *wo t-a-kaj-n-ono to api-'-ina*
NEG 3-IRR-share-1SG-PL ART.NH two-**CLF:fruit**-IRR

'And they don't give me two (fruits) when they come to Trinidad.'
38_216 (to avoid ambiguity)

Functions of classifiers on numerals

- Individualizing/unitizing function of classifiers: nouns have to be classified to be numerable or countable ([Bisang 1999](#), [Seifart 2009](#)): "the noun refers to some kind of mass and the classifier gives a unit to this mass" ([Denny 1986: 298](#)).
- In Mojeño Trinitario, the individualizing function is encoded by determiners (articles or demonstratives).
 - A classifier is not required for a noun to be marked as plural.
 - A classifier can categorize a mass referent.

(1) *a-joch-a=po* *j-ma* *tapajo-no* (2) *n-yere-pa-re-ko* *móteji* .
2PL-close-IRR=PFV DEM-NH.PL door-PL 1SG-carry-**CLF:mass**-PLURACT-ACT earth
'Close the doors!' 6.113 'I carry earth.' 28.011

Functions of classifiers on numerals

- The presence (and selection) of classifiers on numerals is highly grammaticalized, and basically devoid of either syntactic, semantic or discourse function.
 - Almost lexicalized

Derivational function of classifiers

Derivational function

- Derivational function on
 - Noun
 - Adjectives
 - Verbs
 - Demonstratives
- Derive nouns
- Sometimes with an additional derivational formative $-rV$
- 16% of the cases in the sample

Derivational function of classifiers on nouns

- Classifiers in Western Amazonian languages as derivational devices on nouns (Aikhenvald 2000; Seifart & Payne 2007)
- Pepper's list of 100 complex concepts: 52 items in Mojeño Trinitario

simple	23%
N-N compound	12%
borrowing	12%
N with classifier	21%
other derivation	10%
other devices	32%

Derivational function of classifiers on nouns

- Derivation (sometimes with a derivative *-rV*)

(1) *yuk-pi*

fire-**CLF:rope**

'candle'

(3) *p-iypé-re-ku*

2SG-foot-DERIV-**CLF:hollow**

'your footprint'

(2) *wray-'a*

chicken-**CLF:oval**

'chicken egg'

Derivational function

- On adjectives

(1) *'chope-'e*
big-CLF:belly
'drum'

- On verbs

(2) *to* *t-ijr-omo*
ART.NH 3-be_hot-CLF:liquid
'breakfast/dinner'

- On demonstratives

(3) *p-jo-kni-ri-pi*
DEM-NH.SG-INV-DERIV-CLF:rope
'the topic (of a discussion)'

Function of classifiers on nouns - qualification

Other functions of classifiers on nouns

- 23% of the classifiers in the sample are found on nouns.
- Two functions: qualification (16 cases) and derivation (21 cases).
 - If the meaning of N-CLF is a token of the kind expressed by the noun root, then the classifier is qualifying the referent.
 - If the meaning of N-CLF is a token of a different kind from that expressed by the noun root, then the classifier is deriving a new nominal stem.

qualification

(1) *to* *aramre-pi*
ART.NH wire-**CLF:rope**
'barbed wire'

derivation

(2) *to* *yuk-pi*
ART.NH fire-**CLF:rope**
'candle'

Functions of classifiers on nouns

- Qualification: Highlights some inherent or temporary property of the referent.
- Classifier is not obligatory (lexical choice).

mari-si

stone-**CLF:sphere**

'a round stone'

mari-ji

stone-**CLF:shapeless**

'stone field'

mari-cho

stone-**CLF:plank**

'stone block'

Functions of classifiers on nouns

- A common way to qualify a noun
 - Adjectives are few, and rarely used as modifiers.
 - Most common adjectives are about size, age, value, emotion.
 - In the text sample, 40 CLF qualifying a noun, and 38 adjectives.
- May sometimes seem redundant

(1) *to* *aramre-pi*
ART.NH wire-**CLF:rope**
'barbed wire'

(2) *to* *utsera-mo*
ART.NH 1pl-tear-**CLF:liquid**
'our tears'

Function of classifiers on adjectives

Functions of classifiers on adjectives

- Can be thought of as agreement

(1) *su 'seno s-imoo-ro-ko=o'i to chope-gie wkugi*

ART.F woman 3F-watch-PLURACT-ACT=IPFV ART.NH big-CLF:cyl tree

'The woman is watching at the big tree' Traj_M_63

- But is not obligatory

(2) *n-nos=yore te p-jo-ka 'chope wkugi*

1SG-stay=FUT PREP DEM-NH-PROX big tree

'I am going to stay in this big tree' 19.054

Functions of classifiers on adjectives

- But adjectives are few, and little used.
- 10 examples of ADJ+CLF in the sample
 - 6 with *'chope* 'big'.
 - Only one with a head noun → agreement is not main function
- Classifiers on adjectives without a head noun
 - Derivation
 - Anaphora

'chope-gie et-jo=o'i

big-CLF:cyl 3NH-COP=IPFV

'there are some big ones' [talking about trees]