

The grammar of Mayan languages
Glottothèque : Mayan Languages
Nominal Domain

MAYAN CLASSIFICATORY SYSTEMS

Roberto Zavala Maldonado
CIESAS-Sureste

What type of grammatical devices are the classifiers?

They are grammatical devices associated with nouns that divide them into classes or categories:

- Man, woman, man of respect, woman of respect, animal, wood, stone, salt, water
- Animate vs. inanimate; Human vs. animal vs. inanimate
- Long entities, short entities, hanging entities, in the shape of a half circle, sitting entities, lying entities, on four legs, etc.
- Edible, drinkable, negotiable, purchaseable, etc.
- Liquid, solid, long, etc.

How many types are present in Mayan Languages?

- **Numeral CLF**
- **Noun CLF**
- **Genitive CLF**
- **Noun CLASS**

Not present

- Verbal CLF
- Deictic CLF

Not present in Huastecan nor in K'ichean languages

Languages and types

- Yucatecan (numeral CLF, genitive CLF, Noun Classes)
- Tzeltalan and Tojol-ab'al (numeral CLF, Noun Classes)
- Q'anjobalean (numeral CLF, Noun CLF)
- Mameans (genitive CLF, Noun CLF)

Why do some languages develop classificatory devices and others do not?

- Nouns in languages with CLF refer to not individuated entities.
- Classifiers individuate transnumeral nouns. Classifiers make it possible for a lexical element to move from a conceptual level to an object level so that it can be apprehended and, consequently, used as such in the context of quantification or determination (Zavala 1990: 49).

What do Mayan languages teach us about classificatory devices?

- There are languages with multiple classificatory types and also in Mayan it is possible to trace the diachronic origin of the CLF devices.
- There are several examples of borrowed classificatory devices from one language to another.

The documentation of the different types in Mayan

Jakaltek, Craig 1986 y 1987; Akatek, Zavala 1990 y 2000; Chuj, Royer 2022; Tsotsil, De León 1988; Tzeltal, Berlin 1968 y Polian 2013; chol, Arcos 2009; Yucatec Maya, Briceño 1993; Tojol-ab'al, Gómez 2017; *inter alia*.

- a) Numeral CLF
- b) Noun CLF
- c) Genitive CLF
- d) Plural
- e) Nominal Classes

I. Numeral classifiers receive their name because they appear with numeral and quantifiers as free morphemes or a suffixes attached to NUM.

- | | | | | |
|-----|---------------------------------------|----------------|--------------|--------------------|
| (1) | <i>j-p'ej</i> | <i>k'an-al</i> | <i>alaxa</i> | |
| TSO | one- NUMCLF:round | yellow-ATR | orange | |
| | 'A yellow orange.' | | | {De León 1988: 68} |
| (2) | <i>chan-ko<j>t'</i> | | <i>ts'i'</i> | |
| TSE | four- NUMCLF:animal<FRM> | | dog | |
| | 'Four dogs.' | | | {Polian 2013: 601} |

II. *Noun classifiers*. Adnominal modifiers occurring before the noun / anaphoric pronouns.

(3) *xil* [*naj* *xuwan*] [*no'* *lab'a*]
JAK vió **NOUNCLF:man** John **NOUNCLF:animal** snake
'John saw the snake.' {Grinevald 2000: 65}

(4) *xil* [*naj*] [*no'*]
JAK vió **NOUNCLF:man** **NOUNCLF:animal**
'He saw it.'

III. Genitive classifiers: They occur in possessive phrases. They are attached to the possessor but they classify the possessum.

(5) *he'l in w-àalak' kàax-o'b-a'*
YUC PRSV A1SG EP-**GENCLF:domestic** chicken-PL-D.PRX
'Here are my chickens.' {Lehmann 1998: 65}

(6) *kä-p ja'*
CHN A1-**GENCLF:drinkable** water
'My water.' {Knowles 1984: 210}

(7) *n-chi'-ye kyix*
MAM A1-**GENCLF:eatable_food**-POSITIVE fish
'My fish.' {Zavala 1990: 13}

V. Nominal Classes. They are prefixes that distinguish nouns referring to female vs. male humans.

(11) *sajmäl ma'añ=ik tsa' jul-i-∅ x-käntyesa*
CHOL today NEG=SUBJ PERFV arrive-SI-B3 **NOMCL**-teacher
'The teacher did not arrive today.' {Arcos 2009: 114}

(12) a. *x-mal* b. *j-xun*
TSE **CLNOM**:fem-María **CLNOM**:masc-John
'Mary.' 'John.' {Polian 2013: 482}

(13) a. *x-chùuy* b. *j-chùuy*
YUC **CLNOM**:fem-seamstress **CLNOM**:masc-tailor
'Seamstress.' 'tailor.' {Bricker et.al. 1998: 363}

Languages with multiple classificatory devices.

Tojol-ab'al, Q'anjob'alan, Mamean and Yukatekan.

Numeral CLF, Genitive CLF, PL, Noun CLF.

Q'anjob'alan languages and Tojol-ab'al have several types of classifiers that can co-occur in the same NP (cf. Jakaltek (Craig 1986 and 1987); Akatek (Zavala 1990 and 2000; Tojol-ab'al (Gómez 2017)).

(14) *'ey-∅* *kan* *yuu* *kaa-wan* *eb'*
 AKA EXST-B3 DIR:stay by two-**NUMCLF:human** **PL:human**
naj *txonwon*
NOUNCLF:man merchant
 'There were two merchant.' {Zavala 2000: 117}

Numeral classifiers: the most common type. In Mayan they originated from open lexical elements that became suffixes attached to Q or Numeral.

Exhaustivity in the classification: Not all Nouns can be classified and some Nouns can select distinct specific classifiers. There is usually a general classifier that can be used instead of a more specific one.

- **Documentation of the system.** Tsel'tal (Berlin 1968; Polian 2013), Tsotsil (De León 1988), and Chol (Arcos 2009).
- Most numeral classifiers have been recruited from the class of positional roots that encode position, shape, texture, consistency, etc.

(15) *tal-ik=ix* *te* *chan-ko<j>t'*
TSE come-PL.B3=already DET four-**NUMCLF:four_legs<FRM>**
s-muk'-ul *ts'i'=e*
A3-big-ATR dog=DET
'The four big dogs have already arrived.' {Polian 2013: 588}

(16) *cha'-ji<j>ch'* *wiñik*
CHO dos-**NUMCLF:hanging<FRM>** man
'Two man (hanging).' {Arcos 2009: 40}

- | | | | |
|------|------------------------------|----------------|---------------------|
| (17) | <i>j-ch'ix</i> | <i>tsaj-al</i> | <i>kantela</i> |
| TSO | one- NUMCLF:long | red-ATR | candel |
| | 'A red candle.' | | {De León 1988: 66} |
| | | | |
| (18) | <i>'un-ts'it</i> | <i>te'</i> | |
| CHN | one- NUMCLF:long_thin | stick | |
| | 'A stick (thin and long).' | | {Knowles 1984: 276} |

These languages have a general classifier which can replace the more specific classifier.

- (18) a. *chan-ko<j>t'* *chitam*
TSE four-**NUMCLF:animal<FRM>** pig
'four pigs.' {Polian 2013: 595}
- b. *chan-eb* *chitam*
four-**NUMCLF:gral** pig
'Four pigs.' {Polian 2013: 595}

In the Q'anjob'alean languages spoken in the Cuchumatanes (Q'anqob'al, Jakaltek, Akatek and Chuj) and in Tojol-ab'al, there are two different paradigms of numeral CLF: suffix and independent.

The NUMCLF as suffixes.

3 in Akatek: human, animal and inanimate. These classifiers co-occur with all Q and numerals, except number one.

(18) a. *naj* *kaa-wan* *eb'* *winaj*
AKA NOUNCLF dos-**NUMCLF:human** PL:human man
 'The two man.' {Zavala 1990: 28}

b. *'ox-k'on* *txee*
 three-**NUMCLF:animal** horse
 'Three horses.' {Zavala 1990: 69}

c. *'ox-eb'* (*'ixim*) *paat*
 three-**NUMCLF:inanimate** NOUNCLF:corn tortilla
 'Three tortillas.' {Zavala 1990: 19}

Source. Postpositional roots: *wa'* 'standing' *k'on* 'four legs'

(19) *wa'-an=ey-∅* *te'* *te'*
AKA **standing-EST.POS=DIR:descend-B3** NOUNCLF:tree stick
'The stake is stuck.' {Zavala 1990: 77}

(20) *'ox-eb'* *wa'-an* *te'* *'a*
AKA three-NUMCLF:inanimate **NUMCLF.I:standing-FRM** NOUNCLF:tree reed
'Three reeds' {Zavala 1990: 77}

(21) *'ox-wan* *eb'* *winax*
AKA tree-**NUMCLF:human** PL:human man
'Three men.' {Zavala 1990: 93}

Independent NUMCLF

The second paradigm of numeral classifiers in Akatek (and other languages) is the paradigm of independent NUMCLF. Akatek presents a more open and less grammaticalized inventory in relation to the paradigm of suffixal type of NUMCLF (Zavala 1990 and 2000). This type occurs in two alternating structures.

(22) *kaa-(e)b'* *xoyan* *'ixim* *paat*
AKA two-NUMCLF:inanimate **NUMCLF.I:round** NOUNCLF:corn tortilla
'Two tortillas.' {Zavala 2000: 125}

(23) *kaa-xoyan* *'ixim* *paat*
AKA dos-**NUMCLF.I:round** NOUNCLF:corn tortilla
'Two tortillas.' {Zavala 2000: 125}

- (24) *ox-eb'* *kupan* *'ixim* *paat*
 AKA three-NUMCLF:inanimate **NUMCLF.I:semicircle** NOUNCLF:corn tortilla
 'Three quesadillas.' {Zavala 1990: 102}
- (25) *ox-eb'* *k'itan* *'ixim* *paat*
 AKA three-NUMCLF:inanimate **NUMCLF.I:separated** NOUNCLF:corn tortilla
 'Three tortillas (separated from each other).' {Zavala 1990: 102}
- (26) *ox-eb'* *jenan* *'ixim* *paat*
 AKA three-NUMCLF:inanimate **NUMCLF.I:two_dimensions** NOUNCLF:corn tortilla
 'Three tortillas (with a non-canonical shape).' {Zavala 1990: 102}

Source: *CVC-an*. The suffix is unique for positional roots in stative function. Similar patterns in all Q'anjob'alan languages and Tojol-ab'al.

Paradigm of Akatek independent NUMCLF

- a. *wa'an*: for nouns whose referents are hard and thin in upright position.
- b. *k'itan*: referents separated one from another.
- c. *kupan*: bent objects, half-a-circle-shaped objects.
- d. *xoyan*: circle-shaped and coiled-up objects.
- e. *patxan*: wide and flat shaped objects.
- f. *jenan*: two-dimesional extended objects.
- g. *k'olan*: spherical objects.
- h. *b'ilan*: spherical small objects.
- i. *pilan*: big spherical or oval objects.
- j. *xilan*: two- or three- dimensional round objects.
- k. *jilan*: three-dimensional objects with longitudinal shape.

- The NUMCLF suffixes derived diachronically from independent numeral classifiers. The constructions in which the specific classifiers occur as free words is the most frequent pattern in Akatek, while in Tsotsil and Tojol-ab'al, the forms with NUMCLF suffixes are the most frequent, and is also the only structure occurring in Tseltal and Chol.
- Tseltal has been reported to have more than 400 sortal NUMCLF, Tojol-ab'al 46, and 11 in Akatek. There is a lot of variation among speakers.

Noun CLF

- The defining property of Noun Classifiers is that they are free morphemes that modify the head of nominal phrases whose manifestation does not require the presence of possessors or numerals.
- The other defining properties of nominal classifiers are: a) the selection of the classifier is semantically transparent, b) a noun can co-occur with different classifiers, with a change in meaning, c) the inventory is closed, and d) they function anaphorically. The nominal classification system in Mayan languages is shared by the languages of the Q'anjob'alean branch spoken in the Cuchumatanes (Q'anjob'al, Jakaltek and Akatek, Chuj) and in Tojol-ab'al (cf. Jakaltek, Craig 1986 and 1987; Grinevald 1990 and 2003; Akatek, Zavala 1990 and 2000; Buenrostro et.al. 1989). This system of nominal classifiers also exists in Ixil and Mam (England 1983). Languages that have this nominal classification system present an inventory that ranges from two to twenty-five elements (Craig 1986 and 1990; Zavala 1990 and 2000; Gómez 2017). The Akatek (Zavala 1990, 1992 and 2000) system includes fourteen elements.

Paradigm of 14 Noun Classifiers in Akatek (Zavala 2000: 134).

Source		Classifier	
• <i>winaj</i>	'man'	=>	<i>naj</i>
• <i>'ix</i>	'woman'	=>	<i>ix</i>
• <i>?</i>	'honorific'	=>	<i>ko'</i>
• <i>?</i>	'familiar'	=>	<i>yab'</i>
• <i>noq'</i>	'animal'	=>	<i>no'</i>
• <i>te'</i>	'tree'	=>	<i>te'</i>
• <i>ch'en</i>	'stone'	=>	<i>ch'en</i>
• <i>'ixim</i>	'corn'	=>	<i>('i)xim</i>
• <i>tx'an</i>	'thread'	=>	<i>tx'an</i>
• <i>tx'ootx'</i>	'dirt'	=>	<i>tx'otx'</i>
• <i>ja'</i>	'water'	=>	<i>a'</i>
• <i>kaq'</i>	'fire'	=>	<i>ka'</i>
• <i>'ats'am</i>	'salt'	=>	<i>ts'am</i>
• <i>?</i>	'vegetable'	=>	<i>an</i>

This type of classifiers is an innovative feature in Mayan languages only present in the Cuchumatanes area of Guatemala. In addition, it is considered typological rare. In Mesoamerica, it has been reported in Otomanguean languages: some variants of Mixtec (De León 1988), and Zapotec (particularly for Zoochina Zapotec) (López 2016). In Mayan the system is a recent development as suggested by the following features: a) few formal changes are observed between the source noun and the grammaticalized classifier, in addition to the fact that their semantics is clearly transparent.

Changes in form from N to NounCLF (Zavala 1990: 203-205)

1. winaj	'man'	=>	naj
2. noq'	'animal'	=>	no'
3. ja'	'water'	=>	a'
4. k'a(q)'	'fire'	=>	q'a' ~ ka'
5. 'ats'am	'salt'	=>	ts'am
6. yan (')	'grass'	=>	'an

b). Not all nouns can be classified. For example, abstract nouns (song, story, etc.), nominalized verbs (sleep, food, etc.), time expressions (year, month, etc.), body parts (hand, face, etc.), and locative nouns (school, church, etc.) do not take nominal classifiers.

c) The use of NOUNCLF is not obligatory.

(28) *maxto 'ix* *'ixnam xutx* *naj* *Maltin*
AKA went NOUNCLF:woman lady his_mother **NOUNCLF:man** Martín
q'an jek q'ap tu'
ask debt cloth DIST

'Martín's mother when to get cloth using credit.' {Zavala 2000: 138}

(29) *xhi /// maltin* *tu' tel xutx tu'*
AKA said Martín DIST PREP his_mother DIST
'Martín told his mother' {Zavala 2000: 139}

Noun Class Markers

Another categorization system present in all the languages of the Tseltalan branch are the nominal class markers that distinguish, in general, between nouns with a masculine referent and those with a feminine referent, although in Chol it has had a different evolution in the variant of Tumbalá (Arcos 2009).

(30) *Names for female humans*

- TSE a. *x-Mal* 'María'
b. *x-Wel* 'Manuela' {Polian 2013: 482}

(31) *Nouns for "female" animals*

- TSE a. *x-'uman* 'road runner'
b. *x-'ub* 'quail' {Polian 2013: 482}

(32) *Names for male humans*

TSE a. *j-petul* 'Pedro'

b. *j-Xun* 'Juan' {Polian 2013: 482}

(33) *Nouns for "male" animals*

TSE a. *j-'ib* 'armadillo'

b. *j-xik* 'hawk' {Polian 2013: 482}

The classification is arbitrary in nature since many of the animal names do not take one or the other Noun Class marker, and those that do take these class markers do not refer to sex. Furthermore, these prefixes function as derivative mechanisms to indicate the origin or provenance of a person or an activity with which the person is related, as in the following examples.

- (34)a. *j-ak'-chamel* 'sorcerer' <= *ak'-chamel* 'witchcraft'
 b. *j-lot* 'liar' <= *lot* 'lie'
 c. *j-tenam* 'person from T.' <= *Tenam* 'Tenango'
- {Polian 2013: 480}

References

- Arcos López, Nicolás. 2009. *Los clasificadores numerales y las clases nominales en ch'ol*. Tesis de Maestría en Lingüística Indoamericana. Cd. de México: CIESAS.
- Briceño Chel, Fidencio. 1993. *La cuantificación en maya: El uso de clasificadores numerales y mensurativos*. Tesis de Maestría. Mérida, Yucatán: Universidad Autónoma de Yucatán, Facultad de Ciencias Antropológicas.
- Buenrostro, Cristina, José Carmen Díaz y Roberto Zavala. 1989. Sistema de clasificación nominal del Chuj. En Mercedes De La Garza, et. al. (eds.). [*Memorias del Segundo Coloquio Internacional de Mayistas: 17-21 de agosto de 1987, Campeche, Campeche, México*](#), Vol II, pp. 1227-1236. Cd. de México: UNAM.
- Corbett, Grenville G. 2000. *Number*. New York: Cambridge University Press.
- Craig, Colette G. 1986. Jacalteco noun classifiers: A study in language and culture. En Colette G. Craig (ed.). *Noun classes and categorization*, pp. 263-294. Ámsterdam: John Benjamins.
- Craig, Colette G. 1990. Clasificadores nominales: una innovación q'anjob'al. En Nora C. England y Stephen R. Elliot, (eds.). *Lecturas sobre la lingüística maya*, pp. 253-268 Guatemala. CIRMA.
- Craig, Colette G. (ed.). 1986. *Noun classes and categorization*. Ámsterdam: John Benjamins.
- Gómez Cruz, José. 2017. Estructuras morfosintácticas del tojol-ab'al en perspectiva comparativa: el caso de una lengua maya mixta. Tesis de doctorado en Lingüística Indoamericana. Cd. de México: CIESAS.
- Grinevald, Colette. 2000. A morphosyntactic typology of classifiers. En Gunter Senft (ed.). *Systems of nominal classification*, pp. 50-92. Cambridge: Cambridge University Press
- Hofling, Charles Andrew. 2000. *Itzaj Maya grammar*. Salt Lake City: University of Utah Press.

- Hopkins, Nicholas A. 1970. Numeral classifiers in Tzeltal, Jacaltec, and Chuj (Mayan). *Papers from the sixth regional meeting of The Chicago Linguistic Society*, pp. 233-5. Chicago: Chicago University.
- Hopkins, Nicholas. 2012a. The Noun Classifiers of Cuchumatán Mayan Languages: A Case of Diffusion From Otomanguean. *International Journal of American Linguistics*, 78, 411-427.
- Osorio May, José Del Carmen. 2005. *Análisis de la morfología verbal del Yokot'an, "Chontal" del poblado de Tecoluta, Nacajuca, Tabasco*. Tesis de maestría en lingüística indoeuropea. Cd. de México: CIESAS.
- Osorio May, José del Carmen. 2016. *Temas de la sintaxis del yokot'an de Tecoluta, Nacajuca, Tabasco*. Tesis de doctorado en lingüística indoeuropea. Cd. de México: CIESAS
- Polian, Gilles. 2013a. *Gramática del tseltal de Oxchuc*. Tomo I y II. Cd. de México: CIESAS.
- Royer, Justin. 2022. *Elements of (in)definiteness and binding: A Mayan perspective*. Doctoral dissertation, McGill University.
- Vázquez Álvarez, Juan J. 2011. *A grammar of Chol, a Mayan language*. Tesis de doctorado. Austin: University of Texas.
- Zavala Maldonado, Roberto. 1990. Los sistemas clasificatorios en el kanjobal de San Miguel Acatán (Acateco). *Función* 9-10:1-354.
- Zavala Maldonado, Roberto. 1992. *El kanjobal de San Miguel Acatán*. México: Universidad Nacional Autónoma de México
- Zavala Maldonado, Roberto. 2000. Multiple classifier systems in Akatek (Mayan). En Gunter Senft (ed.). *Systems of Nominal Classification*, pp. 114-146. Cambridge: Cambridge University Press.