



# PLURAL MARKING IN KAQCHIKEL

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# Data

- Kaqchikel < Kichean < Mayan
- Guatemala
- 445,000 (2003 census)
- Fieldwork in Patzún, Chimaltenango, Guatemala  
(Fieldstation of the University of Maryland); June 2018

# Structure of the talk

- 1. Background:
  - plural marking in Kaqchikel;
  - problem and questions
- 2. Properties of *taq* as a diminutive particle:
  - position in the structure;
  - diminutive properties;
  - distinct properties
- 3. Properties of *taq* as an adjective-like adjunct
- 4. Problems for the analysis

# 1. Plural marking

- Restricted plural marking: only a closed set of nouns has a morphologically plural form.
  - Persons, some animals, important cultural concepts (Brown et al. 2010; Matzar et al. 1997)
- *achin* [man] ‘man’ – *achi’-a* [man-PL] ‘men’;
- *chiköp* [animal] ‘animal’ – *chikop-i* [animal-PL] ‘animals’;
- *ch’umil* [star] ‘star’ – *ch’umil-a* [star-PL] ‘stars’
- Some adjectives have morphological plural forms as well: *nim* [big] – *nim-a’q* [big-PL]

# 1. How to express plurality for all those which lack plural forms?

- Plural agreement on the verb
- Numerals
- Relative clauses
- Diminutive/emphatic particle in its plural form *taq*

# 1.1. Plural agreement on the verb

(1a) *Fátima x-e-r-paxij*                      *ri*    *läq*

Fatima CMP-B.3PL-A.3SG-break DEF dish

‘Fatima has broken the plates’.

Bad news: plural agreement is optional in most cases (Henderson 2009)

(1b) *Fátima x-u-paxij*                      *ri*    *läq*

Fatima CMP-A.3SG-break DEF dish

‘Fatima broke the plate / the plates’.

- NB: According to Henderson (2009), plural agreement is obligatory for: 1<sup>st</sup> and 2<sup>nd</sup> person arguments, animate plural subjects (both ergative and absolutive).

## 1.2. Numerals

(2) *x-e-n-tzët*                      *ri oxi' ru-chaq'*                      *María*

CMP-B.3PL-A.3SG-see DEF three POSS.3SG-y.sister Mary

‘I’ve seen Mary’s three younger sisters’.

### 1.3. Relative clauses with the agreeing copula (optional)

(3) *ri (e) ki-chaq' re xtan-i' re'*

DEF 3PL POSS.3PL-younger.sister DEM.PR girl-PL DEM.PR.EMPH

*x-e-b'e pa tijob'äl*

CMP-B.3PL-go LOC school

‘These girls’ sisters went to school’.



## 1.4. Diminutive particle *taq*

(4) *pa jay x-e-qan-äj kan taq tz'i'*

LOC house CMP-B.3PL-stay-STEM PTCL DIM.PL dog

‘There stayed some dogs in the house’.

## 1.5. Problem and questions

Problem: Different (and superficial) descriptions in grammars:

- “If one wishes to emphasize the plurality of these [which do not have morphological plural forms – P.P.] nouns a separate **plural particle** *taq* can be added before the noun” (Brown et al. 2010: 150)
- *taq* – diminutive/affective plural particle (Matzar et al. 1997: 62)

Questions:

- *taq* – plural form of the diminutive *ti* or a special plural particle?
- The place of *taq* in the hierarchical model of DP

## 2. Diminutive particle *taq* as a plural marker

It shares some properties with *ti* but has some peculiarities

- Diminutive particle *ti* (*taq*) and their place in the NP structure
- Semantic preferences
- Properties of *taq* unattested for *ti*

## 2.1. *ti* (*taq*) and their place in the NP structure

- They are within the NP, after the determiners

(5) *t-a-loq-o'*                                      *chw-e*                                      *jun ti uq*  
IMP.B.3-A.2SG-buy-STEM    LOC.POSS.1SG-DAT one    DIM skirt  
'Bye me a skirt, please'.

(6) *Fátima x-e-r-paxij*                                      *ri taq / \*taq ri läq*  
Fatima CMP-B.3PL-A.3SG-break    DEF DIM.PL    DIM.PL DEF dish  
'Fatima has broken the little plates'.

(7) *t-a-kaxaj*                      *pe ka'i' taq / \*taq ka'i' qupib'äl*  
IMP.3-A.2SG-give PTCL two    DIM.PL    DIM.PL two    knife  
'Give me two little knives'.

## 2.1. ti (taq) and their place in the NP structure

- *ti* and *taq* can precede prenominal adjectives

(8) *ri tijonel x-u-k'ut-u'*                      *ri ti jebël xtän*

DEF teacher CMP-A.3SG-show-STEM DEF DIM nice girl

‘The teacher presented the very pretty girl’

(9) *k-e'-a-ya-'*      *pe*      *la*      *taq*      *ko'öl xnakät*

IMP-B.3PL-A.2SG-give-STEM PTCL DEM.DIS DIM.PL little onion

‘Give me that little onions’.

## 2.1. ti (taq) and their place in the NP structure

- *ti* and *taq* can precede postnominal adjectives

(10) *ri tijonel x-u-k'ut-u' ri xtän ti jebël*

DEF teacher CMP-A.3SG-show-STEM DEF girl DIM nice

‘The teacher presented the very pretty girl’

(11) *k-e'-a-ya-'*                      *pe*                      *la*                      *xnakät taq*                      *ko'öl*

IMP-B.3PL-A.2SG-give-STEM PTCL DEM.DIS onion DIM.PL little

‘Give me that little onions’.

## 2.1. ti (taq) and their place in the NP structure

- *ti* and *taq* can precede nouns with postnominal adjectives

(12) *ri tijonel x-u-k'ut-u'* *ri ti xtän jebël*

DEF teacher CMP-A.3SG-show-STEM DEF DIM girl nice

‘The teacher presented the very pretty girl’

(13) *k-e'-a-ya-'*                      *pe*                      *la*                      ***taq***                      *xnakät*                      ***ko'öl***

IMP-B.3PL-A.2SG-give-STEM PTCL DEM.DIS DIM.PL onion little

‘Give me that little onions’.

## 2.1. ti (taq) and their place in the NP structure

- Only *taq* can follow adjectives

(14) \**ri tijonel x-u-k'ut-u'*                      *ri jebël ti xtän*

DEF teacher CMP-A.3SG-show-STEM DEF nice DIM girl

‘The teacher presented the very pretty girl’

(15) *k-e'-a-ya-'*      *pe*      *la*      *ko'öl taq*      *xnakät*

IMP-B.3PL-A.2SG-give-STEM PTCL DEM.DIS little DIM.PL onion

‘Give me that little onions’.



## 2.1. *ti* (*taq*) and their place in the NP structure

- They both cannot appear in the NP twice

(16) \**t-aloqo'*                      *ch-w-e*                      *jun ti uq ti käq*  
IMP.B.3-A.2SG-buy-STEM LOC-POSS.1SG-DATone DIM skirt DIM red  
'Bye me a red skirt, please'.

(17) \**pa qa-jardin e k'o taq ko'öl taq umul-a'*  
LOC POSS.1PL-garden 3PL EX DIM.PL little.PL DIM.PL rabbit-PL  
Int.: 'There are small rabbits in our garden'.

## 2.2. Semantic preferences

- There is a lexicalized adjective with the semantics ‘small’, which requires a diminutive particle before itself (compare with (15))

(18) *k-e'-a-ya-*                      *pe*        *la*                      *taq*        *wit*        *xnakät*  
 IMP-B.3PL-A.2SG-give-STEM   PTCL   DEM.DIS   DIM.PL   little   onion  
 ‘Give me that tittle onions’.

(19) \**k-e'-a-ya-*                      *pe*        *la*                      ***wit***    *taq*        *xnakät*  
 IMP-B.3PL-A.2SG-give-STEM   PTCL   DEM.DIS   little DIM.PL   onion  
 Int.: ‘Give me that tittle onions’.

## 2.3. Properties of *taq* unattested for *ti*

- *taq* and *ti* have different behavior within compound words

(20) *la*            *tzik'in-a'* *x-ø-ki-b'än*                            *k-achoch*  
DEM.DIS bird-PL    CMP-A.3SG-E.3PL-make    POSS.3PL-home.PSD  
*ch-ki-xe'*                            *la*            *ru-wi'*                            *taq*    *jay*  
LOC-POSS.3PL-underDEM.DIS    POSS.3SG-hair.PSD DIM.PL house

‘That birds constructed their nests under the roofs (\*of small houses)’.

(21) *la*            *tzik'in-a'* *x-ø-ki-b'än*                            *k-achoch*  
DEM.DIS bird-PL    CMP-A.3SG-E.3PL-make    POSS.3PL-home.PSD  
*ch-u-xe'*                            *la*            *ru-wi'*                            *(\*ti) jay*  
LOC-POSS.3SG-under DEM.DIS POSS.3SG-hair.PSD DIM house

‘That birds constructed their nests under the roof (of a small house)’.

## 2.3. Properties of *taq* unattested for *ti*

- Plural-marked nouns can be in argument positions without an additional determiner. Unmarked plurals cannot do so.

(22) *pa jay x-e-qan-äj kan (ka'i'-oxi') chikop-i'*  
LOC house CMP-B.3PL-stay-STEM PTCL two-three animal-PL  
'There stayed some animals in the house'.

(23) *pa jay x-e-qan-äj kan \*(ka'i'-oxi') tz'i'*  
LOC house CMP-B.3PL-stay-STEM PTCL two-three dog  
'There stayed some dogs in the house'.

## 2.3. Properties of *taq* unattested for *ti*

- *taq* can license plural NPs

(24) *pa jay x-e-qan-äj kan taq tz'i'*  
LOC house CMP-B.3PL-stay-STEM PTCL DIM.PL dog  
'There stayed some dogs in the house'.

## 2.3. Properties of *taq* unattested for *ti*

- Singular diminutive particle seems not to develop the same properties

(25) *a Jose x-u-kamisaj ??(jun) ti äk'*

CL.M José CMP-A.3SG-kill one DIM chicken

‘José killed a little chicken’.

(26) *a Jose x-u-kamisaj taq äk'*

CL.M José CMP-A.3SG-kill DIM.PL chicken

‘José killed little chickens’.

## 2. Properties of *taq* as a diminutive particle

- *taq* can follow prenominal adjectives and *ti* cannot
- *taq* can be inserted into a compound and *ti* cannot
  - *taq* seems to be lower in the structure than *ti* is
- *taq* licenses plural as morphological plural does

### 3. *taq* and adjectives: similarities and differences

- The shape of the morphological form of the adjectives and *ti/taq* is similar
  - Adjectives form their plural forms with *-a'q/-äq* (Matzar et al. 1997: 154)
- Position within NP
- Number concord



## 3.1. Position within NP

- Similarity: *taq* and adjectives are in the same closest position to the head noun
- Difference: *taq* cannot be postpositional

(27) *Fátima x-e-r-paxij ri taq läq / \*läq taq*

Fátima CMP-B.3PL-A.3SG-break DEFDIM.PL dish dish DIM.PL

‘Fátima broke the big plates’.

## 3.2. Number concord

- Plural concord of adjectives is optional

(28) *rīn x-in-tzeqej ri nīm/ nim-a'q taq ab'äj*

I CMP-A.1SG-raise DEF big big-PL DIM.PL stone

‘I rose the big stones’.

- Plural concord with diminutive is obligatory

(29) *a Jose x-u-kamisaj ka'i' taq/ \*ti äk'*

CL.M José CMP-A.3SG-kill two DIM.PL DIM chicken

‘José killed two little hens’.

## 4. Ideas for an analysis

- Explaining the following orders:

Adj-PL/Adj-SG + taq + N

vs. \* Adj + ti + N

taq + Adj-PL/\*Adj-SG + N

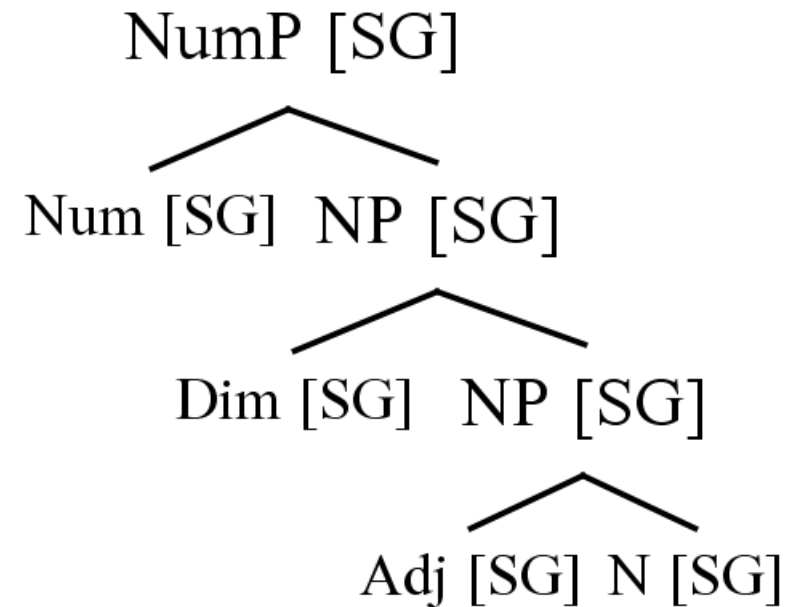
vs. ti + Adj + N

- Dim and Adj both are adjuncts (no change of category)
- The order is strict for SG → adjuncts to different projections
- Agreement in terms of probe and goal (Chomsky 2000)? – NO
  - Which of the two would agree?
- Feature Assignment (Pesetsky 2013)

## 4. Problems

- Problem 1: Why the value of the feature changes the place of an adjunct?
- Feature Assignment (Pesetsky 2013):
  - *ti* + Adj + N – OK
  - *taq* + Adj-PL + N – OK
  - *taq* + Adj-SG + N – \*

Problem: Why can plural *taq* follow adjectives, whereas singular *ti* cannot?



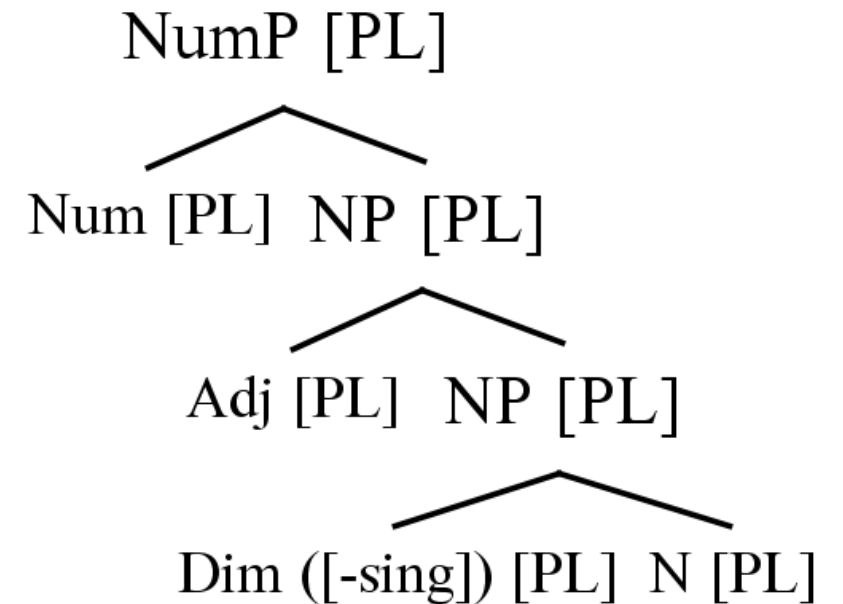
## 4. Problems

- Possible solution for the Problem 1:

*taq* is reanalyzed as a morphological marker → it is in a lower projection (nP)

This diminutive particle checks that there is no feature [+SG] within the NP

- Problem 2: No analysis predicts Adj-SG  
+ *taq* + N



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