Pluralization in Zapotec Languages[*]

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Introduction

The Zapotec language family of the state of Oaxaca in southern Mexico includes an estimated forty mutually unintelligible languages. There are many phonological, lexical and structural similarities which clearly bind them together as single family within the larger Otomanguean stock (see Marlett 1985). But the differences in these areas are also notable.

Pluralization is an example of an aspect in which there is significant structural difference. In this paper we discuss the pluralization of noun phrases and third person pronouns. There are three "features" in which Zapotec languages differ: they either have a given feature or they do not.

- Feature A: a plural proclitic with nominals (including pronouns).
- Feature B: a prefix on the verb (to pluralize the subject).
- Feature C: plural clitic floating (to post-verbal position).

In this paper we document these features in the Zapotec languages. The twenty-three languages we have considered display all of the eight possible combinations of these three features (see Table 1). For example, some languages have none of these features. One has all three of them.

Table 1: Attested Combinations

Type	Language (see note * for abbreviations)	Feature A NP Proclitic	Feature B Verbal Prefix	Feature C Clitic Floating
1	ATE, CHO, GH, GLV, IST, LAC, MIT, OCO, SDA, TEX, WI	Yes	No	No
2	TAB	No	Yes	No
3	YLG	No	No	Yes
4	RIN	Yes	Yes	No
5	RSUR	Yes	Yes	Yes
6	CAJ, YTZ, ZOO	No	Yes	Yes

7	CHI	Yes	No	Yes
8	AMA, MIA, MIX, QUI	No	No	No

We ignore here the matter of the "optionality" of a plural marking. In some languages, such as Isthmus Zapotec, plural marking is fairly obligatory (except when a quantifier is present, when it is not possible); in many of these languages, however, plural marking is not at all obligatory or necessarily common.

Type 1

Type 1 (of the eight attested combinations of features) is represented by many of the twenty-three Zapotec languages under consideration. The following languages are included in this group: Atepec, Choapan, Guevea de Húmbolt, Guelavía, Isthmus, Lachixío, Mitla, Ocotlán, Santo Domingo Albarradas, Texmelucan and Western Ixtlán. (These are not language names, but designators based on the names of regions or towns where particular varieties are spoken.) These languages represent a significant geographical and linguistic spread. This group has only feature A; it marks plural only by a proclitic which occurs immediately before the head of the relevant noun phrase. (We write it here as a separate word.) The examples in this section are from Isthmus Zapotec:

(1) a. **yaga** *'tree'* **ca yaga** *'trees'*

  b. **mani'** *'animal'* **ca mani'** *'animals'*

Zapotec languages typically distinguish between clitic pronouns and free pronouns. Clitic pronouns are used, *inter alia*, for subjects, and we transcribe them below with hyphens preceding them. (They are not agreement affixes.) The plural morpheme simply occurs in front of a third person clitic pronoun to make it plural.

(2) a. **b-yaba**   **-be**   *'s/he fell'*
     Compl-fall   3hum

  b. **b-yaba**   **ca** **-be**   *'they fell'*
     Compl-fall   Pl   3hum

The usage of free pronouns and compound pronouns varies from language to language. In many languages, these pronouns can be or must be used for (at least) objects (see Marlett 1993). Compound pronouns have the structure of inalienably possessed nouns: a stem followed by a clitic pronoun. The pluralizer precedes the clitic pronoun.

(3) **b-i-di'**   **-du**   **ca** **-ni**   **laa**   **ca** **-be**
    Compl-ThV-give   1plexc   Pl   3inan   stem   Pl   3hum

  'we gave them to them'

Type 2

Type 2 is represented by only one language: Tabáa. It has only feature B; pluralization is indicated only by a verbal prefix, for subjects.[note 1] This is illustrated in (4). (Pronouns are ambiguously singular or plural; this is true for the bound pronouns, as shown in (4), and for the free pronouns. For example the free pronoun **lä'** means 'he/she/they'.)

(4) a. **dxe-le'e** **-nä'** *'s/he sees'*
         Cont-see 3resp

     b. **dxe-le-le'e** **-nä'** *'they see'*
         Cont-Pl-see 3resp

Type 3

Type 3 is exemplified by one language, Yalálag, which is closely related to those languages of type 6. It has only feature C: clitic floating. Of course, in order to have clitic floating, a language must have a plural clitic. But most of the languages which have clitic floating use a plural morpheme which occurs only with pronouns. Therefore we classify them as *not* having feature A (because noun phrases are not pluralized with this morpheme). This plural morpheme in Yalálag is seen in the examples in (5). These examples illustrate that in a large number of cases the plural proclitic is contiguous to, and presumably a sister constituent of, the pronoun which it is modifying, much as the plural proclitic in type 1 languages.

(5) a. *Prepositional phrase*

         que **ac** **-ba'** *'of them'*
         of Pl 3anim

     b. *Possessed noun*

         lizh **aqu** **-e'** *'their home'*
         home Pl 3resp

     c. *Compound pronoun*

         lle **aqu** **-e'** *'they/them (3 resp)'*
         stem Pl 3resp

     d. *Clitic pronoun as subject* [note 2]

         polisia **ca'** **b-e'x** **aqu** **-e'** **to** **be'nne**
         police those Compl-grab Pl 3resp a person

         'The police arrested a person'

In the following example the plural morpheme is not contiguous to the pronoun with which it is associated semantically. It appears that it has 'floated' away from the pronoun to a post-verbal position. Clitic floating is obligatory in all of the Zapotec languages (of our sample) which have it. The complete set of conditions governing clitic floating is not known.

(6) a. **b-le'** **ac** **-la** ___ **-ba'**
         Compl-see Pl 1s 3anim

         'I saw them'

     b. ***ble' -la ac -ba'**

The next examples are ambiguous as to the source of the plural clitic since only one plural morpheme may occur following the verb and this morpheme can be interpreted as relating to one or more pronouns.

(7) **b-go'x**   **ac** -a   ___ -be   ___ -n
Compl-hand   Pl   1s   3fam   3inan

'I handed it/them to him/her/them'

(8) **b-go'x**   **aqu** ___ -e   ___ -be   ___ -n
Compl-hand   Pl   3resp   3fam   3inan

's/he/they handed it/them to him/her/them'

If it is assumed that the plural morpheme is indeed a sister constituent of the pronoun at some level of analysis and that there is a rule positioning the plural post-verbally rather than pre-nominally, then it is also necessary to have a rule reducing a sequence of identical plural morphemes to one.

Type 4

Type 4 does pluralization with a noun phrase proclitic and also with a verbal prefix. The one language which attests this type, Rincón, has different morphemes for the plural clitic used with pronouns and that used with nouns. (The morpheme used with nouns is etymologically the word for 'all'; but this quantifier has been generalized to a simple plural proclitic in Rincón, as in some other Otomanguean languages.) The verbal prefix occurs only if the subject is third person. In this language this verbal prefix may occur in lieu of or in addition to the plural proclitic (when the latter is before a subject). Example (9) shows the plural proclitic used before nouns, (10) that used before pronouns, and (11) the verbal prefix.

(9) **yaga**   *'tree'*

     yugu' yaga   *'trees'*

(10) a. **ri-le'e**   -da'   le   **gaca** -nu
       Cont-see   1s   stem   Pl   3f

       'I see them (f)'

    b. **ru-yu**   **gaca** -nu
       Cont-watch   Pl   3f

       'they (f) watch'

(11) a. **gu-la'-ginaj**   **yugu' yaga**
       Compl-Pl-fall   Pl   tree

       'the trees fell'

    b. **gu-la'-gu'**   -ä   -ba'
       Compl-Pl-hit   3m   3anim

       'they (m) hit it'

c. **tu'-yu**　　　**gaca** **-nu**　　　(**ru** 'Cont' + **la'** 'Pl' ⟹ **tu'**)
　　Cont.Pl-watch　Pl　　3f

　　'they (f) watch'

Type 5

　　Type 5 is also represented by only one language, which is very closely related to Rincón: Rincón Sur. This language includes all three features. Clitic floating is one of the few ways in which this language (or dialect, perhaps) differs from Rincón.[note 3] It has a plural proclitic in noun phrases, it uses a verbal prefix to pluralize subjects and it also has clitic floating (when the plural morpheme precedes a pronoun). In most situations the Rincón Sur facts parallel those of Rincón and do not need exemplification here. The difference shows up in the verb when a non-subject pronoun is plural. The following restriction prevents some ambiguity in this language: a third person plural object must be realized as a compound pronoun if the subject is third person plural.

(12)　a.　**ri-le'e**　　**-dä'** **-nu**
　　　　　Cont-see　　3m　　3f

　　　　　'he sees her'

　　　b.　**ta'-le'e**　　**gaca** **-dä'** **-nu**　　（**r** 'Cont' + **la'** 'Pl' ⟹ **ta'**）
　　　　　Cont.Pl-see　Pl　　3m　　3f

　　　　　'they (m) see her'

　　　c.　**ri-le'e**　　**gaca** **-da'**　___　**-nu**
　　　　　Cont-see　　Pl　　1s　　　　3f

　　　　　'I see them (f)'

　　　d.　**ri-le'e**　　**gaca** **-dä'**　___　**-nu**
　　　　　Cont-see　　Pl　　3m　　　　3f

　　　　　'he sees them (f)'

Type 6

　　Type 6 is represented by three closely-related languages: Cajonos, Yatzachi, and Zoogocho. This type uses the verbal prefix and also has plural clitic floating, but only for nonsubjects. In the case of ditransitive verbs with two clitic pronouns, the reference of the plural marker is frequently ambiguous. We use Yatzachi examples to illustrate.

(13)　a.　**ch-ene**　　　　**-bo'**
　　　　　Cont-hear　　　3fam

　　　　　's/he hears' (Butler 1980:142)

　　　b.　**ch-se'-ene**　　**-bo'**
　　　　　Cont-Pl-hear　　3fam

　　　　　'they hear' (Butler 1980:142)

c. **ch-ësë'ë-sed**   **gueyë'**   **bidao'**
   Cont-Pl-study   five   child

   'five children are studying' (Butler 1980:148)

d. **y-osezh**   **ga'ac**   **-bo'o**   ___   **-b**
   Pot-untie   Pl   3fam   3anim

   's/he is going to untie them' (Butler 1980:148)

e. **gw-sa'-aclen**   **ga'aqu**   **-e'e**   ___   **-bo'**
   Compl-Pl-help   Pl   3resp   3fam

   'they helped them' (Butler 1980:149)

f. **b-nezhjhw**   **ga'ac**   **-bo'o**   ___   **-ne'e**   ___   **-b**
   Compl-give   Pl   3fam   3resp   3anim

   's/he gave it/them to him/her/them'

Type 7

Type 7 is attested by one language: Chichicapan. This language does not use a verbal prefix to pluralize third person subjects, but it does use a plural morpheme in the noun phrase and it has clitic floating. In the following example the plural has floated from the object noun phrase to follow the verb.

(14) **g-acane'e**   **ra'**   **-lu'h**   ___   **lasa'a'**   **-lu'h**
      Pot-help   Pl   2s   relative   2s

      'you should help your relatives'

This is the only Zapotec language (to our knowledge) which has plural clitic floating from something other than a pronoun.[note 4]

Type 8

Type 8 has no markers for plural, either with nouns, pronouns, or verbs. This type is exemplified by four languages which are geographically- and linguistically-close: Mixtepec, Amatlán, Quioquitani, and Miahuatlán. In this respect these languages are similar to the geographically-close Chatino languages.

Summary

We have shown that within the Zapotec language family there exist eight different combinations of three manners of indicating plural for third person. The exact historical relationship between these systems remains to be worked out. It is interesting to note, however, that the isoglosses which might be drawn based on the phonological shapes of the plural clitics will not be the same as the isoglosses which are drawn from the syntactic patterns. (See the lists of morphemes in appendix 1 and the map of isoglosses in appendix 2.)

Appendix 1: Comparison of morphemes

We present here the plural morphemes, grouping them by probable historical relationship. (In some cases there are phonologically-conditioned allomorphs; we present here the basic form.) We use the plural morpheme which occurs before pronouns.
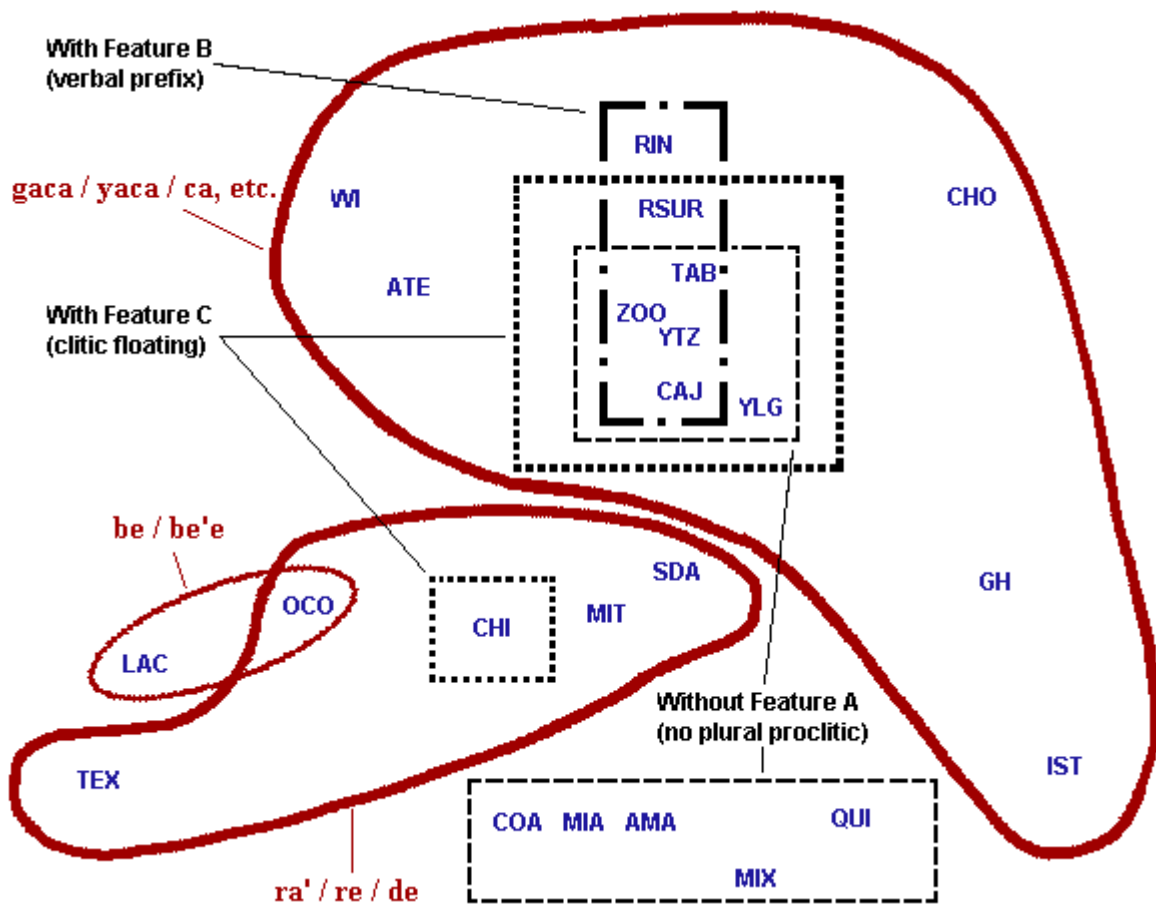
Plural proclitic

gaca	RIN, RSUR	**ra'**	CHI		**be'e**	LAC
ga'ac	YTZ	**ra**	OCO		**be**	OCO (subdialect)
gac	CAJ, ZOO	**re**	MIT, SDA			
ac	YLG	**de**	GLV, TEX			
yaca	CHO					
yahc	GH					
ca	ATE, IST, WI					

Verbal prefix

la'-	RIN, RSUR	**sV'-**	CAJ, YTZ
le-	TAB	**sV-**	ZOO

Appendix 2: Map showing relative locations of Zapotec languages, with isoglosses for syntactic features and plural proclitics

Notes

note *. This is a slightly revised version of a paper which appeared in 1986 (Pluralization in Zapotec languages, *Proceedings of the 1985 meeting of the Linguistic Association of Canada and the United States*, ed. by Mary C. Marino and Luis A. Pérez, 246-255, Lake Bluff, IL: Linguistic Association of Canada and the United States). We thank Albert Bickford for editorial help in preparing the web version.

The following table gives the abbreviations used for the different Zapotec languages and the primary sources from which our information was obtained.

AMA	Amatlán	David Riggs, p.c.
ATE	Atepec	Bartholomew 1983
CAJ	Cajonos	Don Nellis, p.c.
CHI	Chichicapan	Joseph Benton, p.c.
CHO	Choapan	Larry and Rosemary Lyman, p.c.
GLV	Guelavía	Ted Jones, p.c.
GH	Guevea de Húmboldt	Donna Marks Kreutz, p.c.
IST	Isthmus	Pickett 1967
LAC	Lachixío	David Persons, p.c.
MIA	Miahuatlán	David and Gerry Gutierrez, p.c.
MIT	Mitla	Morris and Carol Stubblefield, p.c.
MIX	Mixtepec	Roger Reeck, p.c.
OCO	Ocotlán	Donald Olson, p.c.
QUI	Quioquitani	Michael Ward, p.c.
RIN	Rincón	Robert Earl, p.c.
RSUR	Rincón Sur	Robert Earl, p.c.
SDA	Santo Domingo Albarradas	Wolfram Kreikebaum, p.c.
TAB	Tabáa	Robert Earl, p.c.
TEX	Texmelucan	Charles Speck, p.c.
WI	Western Ixtlán	Grace Thiessen, p.c.
YLG	Yalálag	Ron Newberg, p.c.
YTZ	Yatzachi	Butler 1980, p.c.
ZOO	Zoogocho	Rebecca Long, p.c.

The orthographies used for the Zapotec data here are adapted from current practical orthographies for ease of presentation on the web.

The following abbreviations are used for glosses:

anim	animal	pl, Pl	plural
Compl	completive aspect	resp	respect
Cont	continuative aspect	s	singular
f	feminine	ThV	thematic vowel
exc	exclusive	1	first person

hum	human	2	second person
inanim	inanimate	3	third person
m	masculine		

note 1. This language (and also the others in the Villa Alta district which do not have feature A: Yatzachi, Zoogocho, and Yalálag) uses a plural demonstrative in the noun phrase as a means of indicating plural. Apparently the usage of this plural demonstrative is such that the deictic nature of the morpheme is being lost: **xhaga na'** 'that tree', **xhaga ca'** 'those trees'.

This plural deictic is cognate with a postnominal deictic found in other Zapotec languages and not with the plural proclitic.

note 2. The fronting of a subject requires, in a number of Zapotec languages, the use of a clitic copy in the postverbal subject position.

note 3. The fact that Rincón and Rincón Sur have such similar grammars, one difference being the feature of clitic floating, makes it seem attractive to write their grammars in as similar a fashion as possible, differing only in the inclusion or noninclusion of a rule such as clitic floating.

note 4. Our data from Chichicapan is not as extensive as we would like it, especially in respect to the matter of a clitic floating away from a noun. Further research is necessary.

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