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"Verb inflection, possessive inflection and morphological borrowing in Proto-Zamucoan"

Verb inflection, possessive inflection and morphological borrowing in Proto-Zamucoan

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- The Zamucoan family (a brief note)

- The reconstruction of Proto-Zamucoan inflection

- Areal contact and morphological borrowing

- Explaining morphological borrowing in Proto-Zamucoan

- **The Zamucoan family (a brief note)**

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The Zamucoan family

Old Zamuco (OZ)
spoken in the XVIII century, extinct

Ayoreo (AY)
ca. 4500 speakers

Chamacoco (CH)
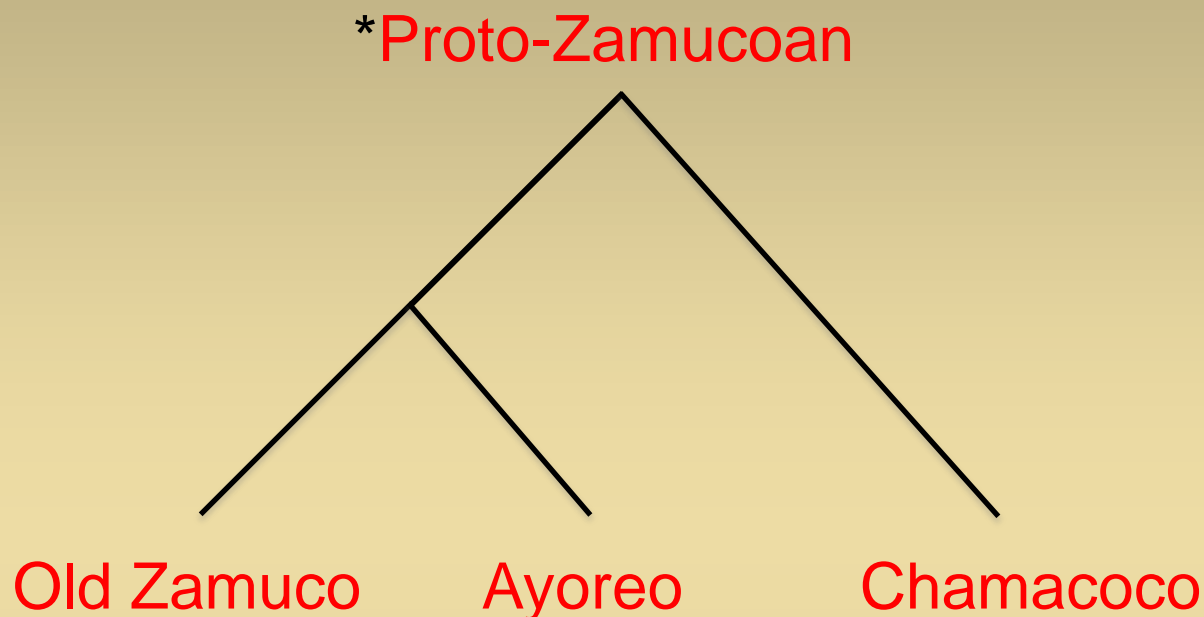(Ɨbɨtoso, Tomarâho)
ca. 1800 speakers

The Zamucoan family

The first stable contact with Zamucoan populations took place in the early 18th century in the reduction of San Ignacio de Samuco.

The Jesuit Ignace Chomé wrote a grammar of Old Zamuco (*Arte de la lengua zamuca*).

The Chamacoco established friendly relationships by the end of the 19th century.

The Ayoreo 'surrended' at the middle of the last century; there are still a few small nomadic bands in Northern Paraguay.

The Zamucoan family: internal classification

*Proto-Zamucoan

Old Zamuco   Ayoreo   Chamacoco

Main morphological features

- Fusional languages
- Verb prefixes marking subject and mood (realis vs irrealis)
- Noun prefixes marking the possessor

- The Zamucoan family (a brief note)

- **The reconstruction of Proto-Zamucoan inflection**

- Areal contact and morphological borrowing

- Explaining morphological borrowing in Proto-Zamucoan

Reconstruction of Proto-Zamucoan verb inflection

Proto-Zamucoan verb inflection		
	Realis	Irrealis
1S	*a-V-ROOT	*j-V-ROOT *tɕ-V-ROOT
2S	*ba-/ma-V-ROOT (*da-V-ROOT)	*a-V-ROOT
3	*tɕ-V-ROOT	*d-/n-V-ROOT
	*t-V-ROOT	*t-V-ROOT
	*Ø-V-ROOT	*Ø-Ø-ROOT *d-/n-V-ROOT
	*Ø-Ø-ROOT	*Ø-Ø-ROOT
1P	*a-V-ROOT-ko	*j-V-ROOT-ko *tɕ-V-ROOT-ko
2P	*ba-/ma-V-ROOT-(j)o (*da-V-ROOT-(j)o)	*a-V-ROOT-(j)o

- Plural persons derive from singular persons

Reconstruction of Proto-Zamucoan verb inflection

Proto-Zamucoan verb inflection		
	Realis	Irrealis
1S	*a-V-ROOT	*j-V-ROOT *tɕ-V-ROOT
2S	*ba-/ma-V-ROOT (*da-V-ROOT)	*a-V-ROOT
3	*tɕ-V-ROOT	*d-/n-V-ROOT
	*t-V-ROOT	*t-V-ROOT
	*Ø-V-ROOT	*Ø-Ø-ROOT *d-/n-V-ROOT
	*Ø-Ø-ROOT	*Ø-Ø-ROOT
1P	*a-V-ROOT-ko	*j-V-ROOT-ko *tɕ-V-ROOT-ko
2P	*ba-/ma-V-ROOT-(j)o (*da-V-ROOT-(j)o)	*a-V-ROOT-(j)o

- Plural persons derive from singular persons

Reconstruction of Proto-Zamucoan possessive inflection

	Old Zamuco	Ayoreo	Chamacoco	Proto-Zamucoan
1S	j-V-root tɕ-/s-V-root	j-V-root	p-V-root	*j-V-root
2S	Ø-a/V-root	b-a/V-root	Ø-a/e/V-root	*a-V-root
3	Ø-V-root Ø-Ø-root d-V-root g-V-root	Ø-V-root Ø-Ø-root d-V-root g-V-root k-V-root p-V-root j-V-root	Ø-V-root Ø-Ø-root d-V-root w-V-root k-V-root j-V-root	*Ø-V-root *Ø-Ø-root *d-V-root *g-V-root
RFL	d-a/V-root	d-a/V-root	d-a/e/V-root	*da-V-root
1P	aj-V-root as-V-root	jok-V-root	–	*aj-V-root *as-V-root [rare]
2P	aj-V-root as-V-root	wak-a/V-root	–	?
GF	p-V-root d-V-root Ø-Ø-root	p-V-root dVk-V-root g-V-root k-V-root Ø-Ø-root	dVk-V-root d-V-root k-V-root Ø-Ø-root o-[3-person]	*p-V-root *dVk-V-root *k-V-root *d-V-root *Ø-Ø-root

	Old Zamuco	Ayoreo	Chamacoco	Proto-Zamucoan
1S	j-V-root tɕ-/s-V-root	j-V-root	p-V-root	*j-V-root
2S	Ø-a/V-root	b-a/V-root	Ø-a/e/V-root	*a-V-root
3	Ø-V-root Ø-Ø-root d-V-root g-V-root	Ø-V-root Ø-Ø-root d-V-root g-V-root k-V-root p-V-root j-V-root	Ø-V-root Ø-Ø-root d-V-root w-V-root k-V-root j-V-root	*Ø-V-root *Ø-Ø-root *d-V-root *g-V-root
RFL	d-a/V-root	d-a/V-root	d-a/e/V-root	*da-V-root
1P	aj-V-root as-V-root	jok-V-root	–	*aj-V-root *as-V-root [rare]
2P	aj-V-root as-V-root	wak-a/V-root	–	?
GF	p-V-root d-V-root Ø-Ø-root	p-V-root dVk-V-root g-V-root k-V-root Ø-Ø-root	dVk-V-root d-V-root k-V-root Ø-Ø-root o-[3-person]	*p-V-root *dVk-V-root *k-V-root *d-V-root *Ø-Ø-root

Possessor and subject markers convergence

	Proto-Zamucoan verb inflection		Proto-Zamucoan possessive inflection
	REALIS	IRREALIS	
1S	*a-V-ROOT	*j-V-ROOT → *tɕ-V-ROOT	*j-V-ROOT
2S	*ba-V-ROOT (*da-V-ROOT)	*a-V-ROOT →	*a-V-ROOT
3	*tɕ-V-ROOT *t-V-ROOT *Ø-V-ROOT *Ø-Ø-ROOT	*d/n-V-ROOT → *t-V-ROOT *Ø-Ø-ROOT	*d/n-V-ROOT *g-V-ROOT *Ø-V-ROOT *Ø-Ø-ROOT
RFL	–	–	*da/na-V-ROOT
1P	*a-V-ROOT-ko	*j-V-ROOT-ko *tɕ-V-ROOT-ko	*aj-V-ROOT *as-V-ROOT [rare]
2P	*ba-V-ROOT-(j)o (*da-V-ROOT-(j)o)	*a-V-ROOT-(j)o	?

Possessor and subject markers convergence

	Proto-Zamucoan verb inflection		Proto-Zamucoan possessive inflection
	REALIS	IRREALIS	
1S	*a-V-ROOT	***j-V-ROOT** ⟶ *tɕ-V-ROOT	***j-V-ROOT**
2S	*ba-V-ROOT (*da-V-ROOT)	***a-V-ROOT** ⟶	***a-V-ROOT**
3	*tɕ-V-ROOT *t-V-ROOT *Ø-V-ROOT *Ø-Ø-ROOT	***d/n-V-ROOT** ⟶ *t-V-ROOT *Ø-Ø-ROOT	***d/n-V-ROOT** *g-V-ROOT *Ø-V-ROOT *Ø-Ø-ROOT
RFL	–	–	***da/na-V-ROOT**
1P	*a-V-ROOT-ko	*j-V-ROOT-ko *tɕ-V-ROOT-ko	*aj-V-ROOT *as-V-ROOT [rare]
2P	*ba-V-ROOT-(j)o (*da-V-ROOT-(j)o)	*a-V-ROOT-(j)o	?

Possessor and subject markers convergence

- The convergenge between possessor prefixes and subject prefixes is not limited to Zamucoan….

- In South America Siewierska (1998) notes «some degree of phonemic correspondences» between possessive and verbal prefixes, in particular between possessor and subject. Such correspondences are twice the average in the rest of the world.

- More specifically, the convergence between possessor and subject markers was observed by Comrie *et al*. (2010: 103-112, 126) for Chaco languages.

- The Zamucoan family (a brief note)

- The reconstruction of Proto-Zamucoan inflection

- **Areal contact and morphological borrowing**

- Explaining morphological borrowing in Proto-Zamucoan

Areal contact 1

• Zamucoan languages present no genetic relationship with other linguistic families. Yet, according to Comrie *et al.* (2010), the Chaco constitutes a **linguistic area** (see Campbell & Grondona 2012b for a different view).

• **Some areal features:**
-possessable vs non-possessable (Fabre 2007)
-possessive affixes
-possessive classifiers (Fabre 2007, Campbell & Grondona 2012a)
-elaborate deictic systems
-para-hypotaxis (Bertinetto & Ciucci 2012)

• **Ciucci (2014) identified a number of morphological borrowings in the Zamucoan family…**

Chaco languages	
Family	**Languages**
Chiquitano	Chiquitano (Bésɨro)
Enlhet-Enenlhet	Angaité, Enlhet, Enenlhet-toba, Enxet, Guaná, Sanapaná
Guaycuruan	†Abipón, Kadiwéu, †Mbayá, Mocoví, Pilagá, Toba
Lule-Vilela	Lule, Vilela
Mataguayan	Chorote, Maká, Nivaklé, Wichí
Tupí-Guaranían	Ava-Guaraní (Chiriguano), Tapiete
Zamucoan	†Old Zamuco, Ayoreo, Chamacoco

Areal contact 2

- **The Mataguayan** (Chorote, Maká, Nivaclé, Wichí), and **Guaycuruan family** (†Abipón, Kadiwéu, †Mbayá, Mocoví, Pilagá, Toba) constitute the **nucleus** of the Chaco linguistic area (Comrie *et. al.* 2010: 125; Viegas Barros 2013a: 10).

- In both verb and noun person markers, both families display morphological similarities with Zamucoan. ***Proto-Zamucoan** was possibly the **recipient language**. In particular, most **Mataguayan languages** also distinguish between a realis and an irrealis mood, as in Zamucoan.

Subject makers: Realis mood

Proto-Zamucoan
REALIS

1S	*a-V-ROOT
2S	*ba-V-ROOT (*da-V-ROOT)
3	*tɕ-V-ROOT *t-V-ROOT *Ø-V-ROOT *Ø-Ø-ROOT

1S.REALIS **MATAGUAYAN**:
Chorote *a-*

2S.REALIS **MATAGUAYAN**:
Chorote *hl-*;
Maká *ł-*, *ła-*, *łi-*, *łV-*, *łVn-*;
Nivaclé *ł-*, *ła-*, *n-*, *na-*;
Wichí *la-* (there is no realis vs. irrealis contrast in Wichí)
*/l/ is absent in OZ and AY, and in free variation with /d/ in CH

3.(REALIS) **MATAGUAYUAN**: Maká *tV-*, *t-*; Nivaclé *t-*, *t'-*, *ta-*, *taʔ-*, *t'a;* Wichí *ta-*. **GUAYCURUAN**: Pilagá *t-* (see Ciucci 2014). (Wichi and Pilagá have no realis vs irrealis contrast)

Subject makers: Irrealis mood

- Most striking similarities among Zamucoan and Mataguayan

	Proto-Zamucoan
	IRREALIS
1S	*j-V-ROOT
	*tɕ-V-ROOT
2S	*a-V-ROOT
3	*d/n-V-ROOT
	*t-V-ROOT
	*Ø-Ø-ROOT

1S.IRREALIS **MATAGUAYAN**:
Chorote *i-*, *ja-*, *j-*;
Nivaclé *j-*, *ji-*, *ja-*.

2S.IRREALIS **MATAGUAYAN**:
Chorote *a-*, Ø-;
Maká *V-*, Ø-;
Nivaclé *a-*, *aʔ-*, Ø-;

3.IRREALIS **MATAGUAYUAN**:
Chorote *in-*;
Maká *nV-*, *n-*, *nVt-*, *nVn-*;
Nivaclé *na-*, *n-*;
Wichi *ni-*.

Possessive inflection

	Proto-Zamucoan
1S	*j-V-root
2S	*a-V-root
3	*Ø-V-root
	*Ø-Ø-root
	*d-V-root
	*g-V-root
RFL	*da-V-root

*/l/ is absent in OZ and AY, and in free variation with /d/ in CH

1S: **GUAYCURUAN**: Abipón *i*-, Kadiwéu *j*-, e*j*-, *i*-, Mocoví *j*-, *i*-, Pilagá *j*-, *ji*-, Toba *j(V)*-, a*j*-, *i*-. **MATAGUAYAN** Chorote *i*-, *j*-, Maká *ji*-, *j*-, *i*-, Nivaclé *i*-, *ji*-, Wichí (Weenhayek dialect) *j*-, *ja*-, -*ʔi* (Viegas Barros 2013b: 314, ex. 96).

2S: **MATAGUAYAN** Chorote *a*- (-C) / Ø- (-V) (2S), Maká *V*- / Ø-, Nivaclé *a*- / Ø-, Wichí *a*- (Ciucci 2014: 20-21).

3: **GUAYCURUAN** Abipón *l*-, Kadiwéu *lː(i)*-, e*lː(i)*-, a*l*-, Mocoví *l*-, a*l*-, Pilagá *l*-, ha*l*-, Toba *l*-, a*l*-. **MATAGUAYAN** Chorote *ł*-, xi-, Maká *ł(V)*-, Nivaclé *ł*-, *ła*-, Wichí *łe*- (Viegas Barros 2013b: 315), Wichí (Bermejo) *ła*- (Comrie *et al.* 2010).

Convergence between 2-realis and 3-possessor

- Apart from the general overlap between possessor and subject markers (for irrealis), Mataguayan and *Proto-Zamucoan also share a convergence between 2-Realis and 3-possessor markers (Comrie et al. 2010: 105, Ciucci & Bertinetto, submitted)

- Verb: 2-Realis
  *Proto-Zamucoan: *__da__-
  MATAGUAYAN: Chorote *ł*-, Maká *ł*-, *ła*-, *łi*-, *łV*-, *łVn*-, Nivaclé *ł*-, *ła*-, *n*-, *na*-, plus Wichí *la*-

- Possessor: 3-person
  *Proto-Zamucoan: *__d__/__n__- (3), *__da__/__na__- (RFL)
  MATAGUAYAN: Chorote *ł-, xi*-, Maká *ł(V)*-, Nivaclé *ł-, ła*-, Wichí *la-, le*-

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- **Explaining morphological borrowing in Proto-Zamucoan**

Explaining morphological borrowing

- Lexical borrowing is easier than morphological borrowing (Matras 2009: 153-155) and person markers are traditionally considered resistant to borrowing.

- However, Ciucci (2014) only identifies an extremely low number of shared roots between Zamucoan and Mataguayan/Guaycuruan.

- How is this to explain? Linguistic purism cf. the «cultural inhibition aganst recognizably foreing items» reported by Aikhenvald (2002, 2012) for the contact between Tucano (East Tucanoan) and Tariana (Arawakan).

Explaining morphological borrowing

- Contact between Resígaro (Arawakan) and Bora (Witotoan): remarkable morphological borrowings, but only 5% of lexicon similarity (Seifart 2011, 2012).

- According to Epps (to appear) some linguistic areas of South America «exhibit low levels of lexical borrowing, coupled with extensive diffusion of grammatical structures and categories— a combination which stands in fairly profound contrast to multilingualism in many other parts of the world».

- Lack of a robust theory of cross-linguistic sociolinguistics (Wohlgemuth 2009: 298-301).

Explaining morphological borrowing

- Not much is known on the language contact history between Zamucoan and Mataguayan/ Guaycuruan.

- No evidence of linguistic exogamy, but conflictive relationships still in recent times could lead to the rape of women (Fischermann 1988).

- Possibility of early bilingualism characterized by a taboo against foreing lexical materials.

- The lack of borrowed free pronouns seems an indirect confirmation, because children acquire bound person affixes earlier than functional words (Dressler *et al*. 2003).

Borrowed inflectional morphology in Zamucoan

	Proto-Zamucoan verb inflection		Proto-Zamucoan possessive inflection	Proto-Zamucoan free pronouns
	REALIS	IRREALIS		
1S	*$\mathbf{a}$-V-ROOT	*$\mathbf{j}$-V-ROOT *tɕ-V-ROOT	*$\mathbf{j}$-V-root	*(u)jV$_{back}$
2S	*ba-V-ROOT (*$\mathbf{da}$-V-ROOT)	*$\mathbf{a}$-V-ROOT	*$\mathbf{a}$-V-root	*(u)wa
3	*tɕ-V-ROOT *$\mathbf{t}$-V-ROOT *Ø-V-ROOT *Ø-Ø-ROOT	*$\mathbf{d}$-V-ROOT *$\mathbf{t}$-V-ROOT *Ø-Ø-ROOT	*$\mathbf{d}$-V-root *g-V-root *Ø-V-root *Ø-Ø-root	[*wite (M)] [*wate (F)]
RFL	–	–	*$\mathbf{d}$a-V-root	–
1P	*$\mathbf{a}$-V-ROOT-ko	*$\mathbf{j}$-V-ROOT-ko *tɕ-V-ROOT-ko	*aj-V-root *as-V-root [rare]	*(u)jV$_{back}$k
2P	*ba-V-ROOT-(j)o (*$\mathbf{da}$-V-ROOT-(j)o)	*$\mathbf{a}$-V-ROOT-(j)o	?	*(u)wak
3P	–	–	–	*ore

Explaining morphological borrowing

- The typological difference between Zamucoan and Mataguayan/Guaycuruan (fusional vs agglutinative) permits to exclude any common origin, but it is not an obstacle to grammatical transfer (Gardani 2008).

- Gramatical morphemes shared between Zamucoan and Mataguayan/Guaycuruan tend to organize themselves into an organic paradigm.

- This can be explained by the Principle of Morphosyntactic Subsystem Integrity (Seifart 2012) «Borrowing of paradigmatically and syntagmatically related grammatical morphemes is easier than borrowing of the same number of isolated grammatical morphemes».

Eruei ute

End   this

(Ayoreo)

Shɨ ele no ma

Only this no more

(Chamacoco)

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