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

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The Zamucoan family consists of two living languages: Ayoreo and Chamacoco, spoken in Northern Chaco (between Bolivia and Paraguay) by approximately 4500 and 2000 people, respectively. The Zamucoan family also includes the now extinct Old Zamuco, described in the early 18<sup>th</sup> century by the Jesuit Father Ignace Chomé (1958 [ante 1745]). All three languages present morphosyntactic correspondences, allowing robust diachronic insights (Ciucci 2013; Ciucci & Bertinetto, submitted) supporting the idea that they stem from a common ancestor: Proto-Zamucoan (PZ). No other genetically related language has so far been identified. Biological studies confirm the common origin of the Zamucoan populations, as well as their genetic distance from the surrounding indigenous populations (Demarchi & García Ministro 2008; Rickards *et al.* 1994).

This talk will present the reconstruction of PZ verb and possessive inflection (see Table) and will compare it with the other surrounding languages, in order to identify cases of morphological borrowing. Unlike the surrounding Chaco languages, the Zamucoan ones are fusional. Verbs express person and mood (realis vs irrealis). All languages, including Zamucoan, distinguish possessable and non-possessable nouns: the former present personal prefixes which agree with the possessor (with the only exception of Vilela, see Fabre 2007). A unique feature of the Zamucoan languages is that possessable nouns present a split in the 3-person, such that the non-subject-coreferent 3-person contrasts with the subject-coreferent 3-person (henceforth 'reflexive-person').

	Proto-Zamucoan verb inflection		Proto-Zamucoan possessive
	Realis	Irrealis	inflection
1S	*a	*j *te	* <b>j</b>
2S	*ba (*da)	*a	*a
3	*tc *t *Ø *Ø	*d *t *Ø	*d *g *Ø *Ø
Reflexive	_	_	*da
1P	*ako	*jko *teko	*aj *as [rare]
2P	*ba(j)o (*da(j)o)	*a(j)o	?

Person marking in Proto-Zamucoan verbs and possessable nouns

PZ presented some degree of affinity between nominal and verb inflection, which is rather frequent cross-linguistically, particularly so in the Gran Chaco (Comrie *et al.* 2010) and in South-America in general (where the correspondences between verb and nominal affixes are twice the average in other parts of the world, see Siewierska 1998).

According so some linguists, the Gran Chaco constitutes a linguistic area (Comrie *et al.* 2010, Viegas Barros 2013): indeed, the Chaco populations, although traditionally in mutual conflict, have

been in narrow contact for centuries, so that not only lexical, but even morphological borrowings had a chance to emerge, and this is precisely the case of personal marking. Indeed, Guaycuruan (GU), Mataguayan (MA) and Zamucoan show similar personal exponents (Ciucci 2014). In the verb system, most MA languages exhibit the realis/irrealis distinction and one can note affinities: (a) in the 1S-, 2S- and 3-person of the irrealis; (b) in the 1S- and 2S- of the realis. Also the possessive inflection presents similarities between Zamucoan and MA/GU in the 1S- and 2S-person. Moreover, there are reasons to surmise that the split between 3-person and reflexive-person characterizing the Zamucoan family has been induced by the introduction of the 3-person morpheme from MA/GU languages. All of these features were borrowed at the PZ time.

Although it is generally acknowledged that morphological borrowing is rarer than lexical borrowing (see e.g. Matras 2009: 153-165), Ciucci (2014) unexpectedly identified a limited number of lexical borrowings between Zamucoan and MA/GU. In South-America a similar situation has been reported for other cases of contact between genetically unrelated languages: (a) Resígaro and Bora (Seifart 2012); (b) Tucano and Tariana (Aikhenvald 2012). In both cases, owing to social constraints, remarkable correspondences between bound morphemes contrast with extremely low lexical similarity, just like in the case of the Zamucoan and MA/GU contact. Finally, the fact that the most remarkable traces of contact involves person marking can be explained by the *Principle of Morphosyntactic Subsystem Integrity*, proposed by Seifart (2012), stating that it is easier to borrow morphosyntactically interrelated morphemes than isolated forms.

## **Bibliographical references**

- Aikhenvald, Alexandra Y. 2012. 'Invisible' loans: How to borrow a bound form. In: Lars Johanson & Martine Robbeets (eds.). Copies versus Cognates in Bound Morphology. Leiden / Boston: Brill. 167-186.
- Chomé, Ignace 1958 [ante 1745]. Arte de la lengua Zamuca. Présentation de Suzanne Lussagnet. Journal de la Société des Américanistes de Paris 47. 121-178.
- Ciucci, Luca 2013. *Inflectional morphology in the Zamucoan languages*. Ph.D. thesis. Pisa: Scuola Normale Superiore.
- Ciucci, Luca 2014. Tracce di contatto tra la famiglia zamuco (ayoreo, chamacoco) e altre lingue del Chaco: prime prospezioni. *Quaderni del Laboratorio di Linguistica della Scuola Normale Superiore di Pisa*.
- Ciucci, Luca & Bertinetto, Pier Marco (to appear). A diachronic view of the Zamucoan verb inflection. *Folia Linguistica Historica*.
- Ciucci, Luca & Bertinetto, Pier Marco (submitted). A diachronic view of possessive inflection in the Zamucoan family.
- Comrie, Bernard, Lucía A. Golluscio, Hebe Gonzáles & Alejandra Vidal 2010. El Chaco como área lingüística. In Zarina Estrada Férnandez & Ramón Arzápalo Marín (eds.). Estudios de lenguas amerindias 2: contribuciones al estudio de las lenguas originarias de América. Hermosillo, Sonora (Mexico): Editorial Unison.
- Demarchi, A. Darío & Angelina García Ministro 2008. Genetic structure of native populations from the Gran Chaco region, South America. *International Journal of Human Genetics* 8(1-2). 131-141.

- Fabre, Alain 2007. Morfosintaxis de los clasificadores posesivos en las lenguas del Gran Chaco (Argentina, Bolivia y Paraguay). *UniverSOS* 4. 67-85.
- Matras, Yaron 2009. Language Contact. Cambridge: Cambridge University Press.
- Rickards, Olga, Marco Tartaglia, Cristina Martínez-Labarga & G.F. De Stefano 1994. Genetic relationships among the Native American populations. *Anthropologischer Anzeiger* 52, 3. 193-213.
- Seifart, Frank 2012. The principle of morphosyntactic subsystem integrity in language contact. *Diachronica* 29, 4. 471-504.
- Siewierska, Anna 1998. On nominal and verbal person marking. Linguistic Typology 2. 1-55.
- Viegas Barros 2013. *Proto-Guaicurú*. *Una reconstrucción fonológica, lexica y morfológica*. München: Lincom Europa.