Lexicography in the Eighteenth-century Gran Chaco: the Old Zamuco Dictionary by Ignace Chomé

Luca Ciucci

Language and Culture Research Centre, James Cook University
E-mail: luca.ciucci@jcu.edu.au

Abstract

The *Vocabulario de la lengua zamuca* is the only extant dictionary of Old Zamuco, an extinct Zamucoan language spoken in the 18th century in the abandoned mission of *San Ignacio de Samucos*, located in the northern Chaco lowlands of South America. This document was until now inaccessible to scholars, but has now been thoroughly studied by the present author, and found to contain very rich data, which establish its fundamental importance for linguistic studies on Zamucoan and Chaco languages. The critical edition of the dictionary is currently under publication. The original author of the dictionary, the Jesuit Father Ignace Chomé (1696-1768), reveals his brilliant linguistic intuition and remarkable skills in the collection and representation of linguistic data. One of the theoretical challenges he had to face was the threefold system of nominal suffixation, which is an absolute linguistic rarity. The present paper will show how the author dealt with the main word classes of Old Zamuco, that is verbs, nouns and adjectives. Chomé structured the entries for these lexemes in such a way as to provide plenty of information on inflectional and derivational morphology. The data from the dictionary permit new and interesting insights on the grammar of Old Zamuco.

Keywords: historical lexicography, lexicography of extinct languages, morphology, South American languages, Zamucoan

1   The Old Zamuco Language[1]

Old Zamuco is the earliest documented language of the Zamucoan family. It was spoken in the Jesuit mission of *San Ignacio de Samucos*, which was part of the *Jesuit Missions of Chiquitos* in southeastern Bolivia. The mission was founded in a remote and today unknown location of the northern Chaco in 1724. While the lingua franca in the other missions of the region was Chiquitano, the only language spoken in San Ignacio was Old Zamuco. This was part of a strategy aiming at the evangelization of the still uncontacted Zamucoan tribes of the region (Combès 2009: 82). When the mission was abandoned in 1745, its inhabitants were transferred to the neighboring missions, where they were gradually assimilated by the Chiquitano speaking population, and lost their language. Nowadays the Zamucoan family consists of two languages, Ayoreo and Chamacoco. Ayoreo is spoken by about 4,500 people in the Chaco lowlands of southeastern Bolivia and northern Paraguay, while the speakers of Chamacoco, about 2,000, traditionally inhabit the department of Alto Paraguay in Paraguay. Old Zamuco is lexically very close to Ayoreo (Kelm 1964), but comparative studies (Ciucci & Bertinetto 2015, 2017) show that the language shares a number of archaic features with Chamacoco, which is lexically very different from Ayoreo. Old Zamuco is therefore of fundamental importance for the reconstruction of Proto-Zamucoan.

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1   **Abbreviations and conventions.** The data for Old Zamuco, Ayoreo and Chamacoco are reported in the respective orthography. The Spanish translations in the dictionary have been faithfully transcribed according to Chomé's orthography. In the text I have used the following abbreviations: 1, 2, 3 = first, second, third person; BF = base form; F = feminine; FF = full form; FS = feminine singular; FP = feminine plural; GF = generic form; IF = indeterminate form; IRLS = irrealis; M = masculine; MP = masculine plural; MS = masculine singular; NEG = negation; P = plural; REFL = third person reflexive; RLS = realis; S = singular. Chomé also makes use of abbreviations in his dictionary. Here they are reported with the respective translations: 3.ª = third person; Abs. = generic form (Spanish *absoluto*); Fem. = feminine; N. = negation; pl. = plural; pos. = 'possession'; v. = see (Latin *vide*).

Old Zamuco was first studied by the founders of San Ignacio, Augustín de Castañares (1687-1744) and Domenico Bandiera (1693-1765). However, most of the available documentation is due to the work of Ignace Chomé (1696-1768), an admired polyglot with remarkable skills of linguistic analysis (Hervás y Panduro 1784: 47). He was the leading figure for linguistic studies in the *Jesuit Missions of Chiquitos*, being the author of a number of works on Chiquitano and Old Zamuco (Astorgano Abajo 2007: 744-746). Chomé was sent to San Ignacio de Samucos at the end of 1737, and in a letter dated 17th of May 1738 he communicated that he had learned Old Zamuco in five months (Possoz 1864: 94-97). Chomé wrote a grammar of Old Zamuco, *Arte de la lengua zamuca*, and a dictionary, *Vocabulario de la lengua zamuca*, which was a bidirectional dictionary between Old Zamuco and Spanish. While the grammar was published posthumously in 1958 (Chomé 1958 [before 1745]), the dictionary remained until recently inaccessible to scholars, which led the present author to prepare a critical edition of it (Ciucci, forthcoming). Chomé's grammar and dictionary are the main sources on Old Zamuco, with the dictionary containing approximately eight times the amount of data of the grammar. Other minor sources are wordlists and short texts collected by Hervás y Panduro (1784, 1786, 1787a,b) and by d'Orbigny (Lussagnet 1961, 1962). A few more data can be found in Clark (1937: 127-128), who published some materials which Hervás y Panduro used for his linguistic works.

2   The Old Zamuco Dictionary

The *Vocabulario de la lengua zamuca* is the only extant dictionary of Old Zamuco. When the Jesuits were expelled in 1767, the dictionary was in the inventory of objects of the mission of *Santiago de Chiquitos* (Brabo 1872: 522). It is not known when and why this and other volumes were transferred to La Paz, but there is evidence that in the first half of the 20th century the dictionary was kept at the Geographical Society of La Paz, where Vargas Ugarte saw the manuscript in 1931. Later, the dictionary was considered lost (Lussagnet 1961), and was then located at the Central Library of the *Universidad Mayor de San Andrés* (UMSA) in La Paz (Combès 2009), where it is currently kept. It is part of a collection of six volumes of grammatical and lexicographical studies on Chiquitano and Old Zamuco, attributed to Ignace Chomé. In 2014 Pier Marco Bertinetto and the present author obtained official permission from UMSA to prepare a critical edition of the whole collection. The upcoming edition of the Old Zamuco dictionary (Ciucci, forthcoming) is the first outcome of this project, which began at *Scuola Normale Superiore di Pisa* and is now continuing at James Cook University. In 2016 the collaboration of the UMSA Central Library with the two universities involved in the project led to the inclusion of this collection in the register of the UNESCO Memory of the World program by the UNESCO Regional Committee for Latin America and the Caribbean.

The volume containing the work is a leather-bound manuscript in folio form with 243 numbered pages. The text of the dictionary begins on page 2 and covers 242 pages. According to Vargas Ugarte (1931: 151) the manuscript consisted of two parts: (i) a Spanish-Old Zamuco section, which was 62 folios long (124 pages), and which is now lost; (ii) the Old Zamuco-Spanish section (the remaining 242 pages). The second part corresponds to what is left of the dictionary, and still has all the folios/pages counted by Vargas Ugarte, with the exception of the initial pages, immediately following the lost first section. As a result, the manuscript contains no title, which can only be obtained from Vargas Ugarte's (1931) description. Interestingly, the lost first section is dated 1739, the second 1738. Considering the original length of the two sections, the first had shorter entries, possibly with the main intention to cross-reference with the corresponding Old Zamuco-Spanish entry of the word, where Chomé offers detailed semantic and grammatical information.

The Old Zamuco-Spanish section of the dictionary was originally longer, because there were already some gaps in 1931, as one can see in Vargas Ugarte. The entry for the word *natu* is followed by the

one for *toriga*, which is actually incomplete, because the citation form was in the previous (lost) page, although it can easily be reconstructed thanks to the data contained in other parts of the dictionary. The first complete entry after *natu* is *torona*.[2] It is impossible to quantify how many pages are missing, but this gap can clearly be seen in the manuscript. Between pages 235 and 236 there are two or more pages missing, because the entry following *udda* is *utac*. This was not noted by Vargas Ugarte, but considering the number of folios he mentions these were already missing in 1931. Since there is no gap in the numbering of the pages, the obvious conclusion is that page numbers were added recently.

The manuscript has two columns. Chomé wrote the entries in the left column and used the right one to add further information or new entries later. For this reason, it is easy to identify later additions in the dictionary. Chomé completed the first version of the Old Zamuco-Spanish part in 1738. This is a remarkable achievement, considering that this first version includes most entries, and that Chomé had been able to do such a huge task within a year, and in the very year in which he had also learned the language. Moreover, the way in which the dictionary is structured shows that Chomé had acquired a deep understanding of Old Zamuco. It is possible that he also used some materials produced by his predecessors in the mission: for instance, in his grammar he reports data on verb moods and tenses from a small notebook by Augustín de Castañares (Chomé 1958: 147), but this does not lessen the value of Chomé's achievements.[3] We do not know when Chomé wrote his grammar, but it was very likely written after the dictionary, which is referred to many times in the former. In the dictionary one can also see some parts of text that appear to be copied from the grammar, but they are later additions in the right column. After finishing the first version of the dictionary, Chomé not only continued to add entries, but also checked the data several times, as proved by the many corrections in the manuscript. The dictionary is not signed by Chomé, but comparison with autograph letters by Chomé kept in Rome[4] shows that the calligraphy of the manuscript is that of Chomé, authenticating this as the original version of the work.[5]

The orthography of Old Zamuco is based on Spanish. This is the alphabetical order adopted in the dictionary: a, b, c {=/k/}, ç {=/s/}, ch, d, e, g {= /g/, but <gü>, and often <gu>, = /w/}, h, i, m, n, o, p, q, r, s, t, u {occasionally: u, ü}, v, y {=/j/}, z {=/s/}. However, Chomé does not strictly follow this order. The Old Zamuco-Spanish part is divided into many sections according to the first two or three letters of the entries: AA, AB, AC, ACH, AD, AE, AG, AH, AIB, AIC, and so on, until ZU at the end of the dictionary. The dictionary contains a very rich set of data. The remaining part of the dictionary comprises 2,110 entries (including some incomplete entries). The text of the critical edition (Ciucci, forthcoming) has about 96,763 words. For comparison, the edition of the grammar (Chomé 1958) has about 22,220 words. Extracting the Old Zamuco words from the dictionary results is a corpus of about 43,667 words. By contrast, if one adds up only the parts in Old Zamuco from all other available sources (excluding d'Orbigny, who collected his data more than 60 years after the Jesuit period), the resulting corpus has about 5,422 Old Zamuco words. This means that the dictionary offers about eight times the amount of data contained in the grammar and other minor sources from the Jesuit period.

The main word classes in Old Zamuco are verbs, nouns and adjectives, which form the majority of lexical entries. The Old Zamuco dictionary is rich in morphological information on these word classes, but presupposes that the reader has some knowledge of the inflectional morphology of Old

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2   The description of the dictionary by Vargas Ugarte (1931: 151) contains two mistakes: (i) the total number of folios was 179 and not 279; (ii) the first complete entry after *natu* is not *sorona*, but *torona* (Vargas Ugarte confused <t> with <s>), which follows *toriga*.

3   This notebook by Augustín de Castañares is lost and is only known because it is mentioned in the Old Zamuco grammar.

4   *Archivum Romanum Societatis Iesu* (Roman Archives of the Society of Jesus), Fondo Gesuitico 751: 283; Fondo Gesuitico 752: 247, 251, 255, 259, 260, 261, 262.

5   By contrast, my analysis of the manuscript of the Old Zamuco grammar has revealed that it is a copy done by some missionaries. The original manuscript is lost.

Zamuco, as described in Chomé's grammar. In the following, I will deal with the inflection of these word classes, in order to show how Chomé organizes his dictionary.

3   Nominal Suffixation in Chomé's Dictionary

Old Zamuco is a fusional language. Nouns and adjectives have the same suffixation, so that they will be referred here as nominals. Every nominal suffix expresses gender (masculine vs feminine), number (singular vs plural) and a third grammatical system marking the "nominal form" (Bertinetto 2014a; Ciucci 2016). In all Zamucoan languages nominals distinguish a base form, a full form and an indeterminate form. The base form marks a noun phrase which carries out nominal predication, as in (1).[6] It is called the base form, because its singular coincides with the root or stem (depending on the nominal), and it is the base for any morphological operation.

(1) *Nani-onnoe*   [*uom-io*].
    indigenous_man-MP.FF   good-MP.BF
    'The indigenous people are good.' (Chomé 1958: 128)

By contrast, the full form and indeterminate form indicate that the noun phrase works as a core or peripheral argument (2).

(2) [*Desi-oddoe*]   *dac*.
    boy-MP.FF   3.come
    'The boys come.' (Chomé 1958: 128)

The difference between the full and indeterminate form involves semantics, because the indeterminate form has non-specific referent.

(3) *A-gu*   [*cucha-tic*].
    1S.RLS-eat   thing-MS.IF
    'I eat something.' (unspecified) (Chomé 1958: 132)

Within the noun phrase, the possessor appears in the full form (4).[7] In Old Zamuco, adjectives follow the head of the noun phrase (5), and only the last element of the sequence (e.g. *uzodaddoe* in (5)) appears in the form and number required by the syntactic context. All preceding nominals (excluding the possessor) are in singular base form (e.g. *horâ* in (5)), independently of the referent's number. The head of the NP and the adjectival modifier only agree in gender.

(4) *A-hu*   [*chuguper-itie*]   *unno-tie*.
    1S.RLS-pluck   bird-MS.FF   wing-MS.FF
    'I pluck a bird's wing.' (Chomé 1958: 128)

(5) *Uom-onoe*   *iyogueciñum*   [*horâ*   *uzoda-ddoe*]
    good-MP.FF   3.RLS.flee   companion.M/FS.BF bad-mp.ff
    'The good (people) flee from bad companions.' (Ciucci, forthcoming)

This grammatical system is an absolute rarity, only found in the Zamucoan family. In his grammar Chomé described this unknown system combining the cases of Classical Latin and those of Old French (nominative vs the so-called *cas régime*) with the notion of nominal tense, which he knew

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6   The morphological expression of predicativity on nouns it is a rare feature (Bertinetto, Ciucci & Farina, forthcoming).

7   According to Chomé, the possessor can also be in base form if the head of the NP is in full form (Chomé 1958: 128). However, this structure coincides with that of compounds, whose first element is in (singular) base form: cf. the compound *yote maitae* (3.FS.FF) 'branch of river' < *yote* (3.MS.BF) 'water' + *maitae* (3.FS.FF) 'finger'. The degree to which Chomé was aware of the ambiguity between possession and compounding is a problem that needs further investigation.

from Old Guaraní. As a result Chomé's description is obscure, because the labels he uses often do not correspond to the actual function of a given element. Table 1 features the nominal tripartition of Old Zamuco after reinterpretation of Chomé's data (Ciucci 2016: 682-690). Note that there are two types of full form. The first is the one normally used, while the second, indicated between parentheses as "full form II", consists of allomorphs in competition with the standard full form.[8] It was rarely used in Old Zamuco, and in Ayoreo it is only found in a few relics. In Zamucoan some affixes can undergo nasal harmony.[9] Below and in the following tables I do not provide allomorphs whose distribution is due to nasalization.

Table 1: The nominal tripartition of Old Zamuco.

	Singular		Plural	
	Masculine	Feminine	Masculine	Feminine
Base Form	-Ø	-Ø, -e	-o, -yo	-i, -yi
Full Form	-tie	-tae	-oddoe	-yie, -iyie
(Full Form II)	(-ré, -dde)	(-ac)	(-ao, -iao)	(-ai)
Indeterminate Form	-nic, -ric, -tic	-nac, -rac, -tac	-nigo, -rigo, -tigo	-rigui

Below are a feminine and a masculine noun from the dictionary (6-7). For ease of reading, I have supplemented words abbreviated by the author and I have omitted philological details which are not relevant here, thus reporting only the text of the upcoming critical edition. Each entry is followed by its English translation, with some glosses for the words I want to point out.

(6) ***Garomié***, *garomietae*, pl. *garomiei*, *garomieyie*, cola de los animales.
[***Garomié*** (FS.BF), *garomietae* (FS.FF), pl. *garomiei* (FP.BF), *garomieyie* (FP.FF), animal tail.]

(7) ***Hubedda***, *hubeddatie*, pl. *hubeddao*, *hubeddaddoe*, grande moscardon.
[***Hubedda*** (MS.BF), *hubeddatie* (MS.FF), pl. *hubeddao* (MP.BF), *hubeddaddoe* (MP.FF), big blowfly].

For all nominals Chomé systematically reports, in the same order: (i) the singular base form, which is the citation form; (ii) the singular full form; (iii) the plural base form; and (iv) the plural full form. The paradigm is then followed by the Spanish translation of the word. If the nominal has both masculine and feminine forms, the citation form is usually the masculine singular base form, as in the adjective *dugoc* (8). After the translation, the feminine singular base form (*dugogué*) is reported. Very often Chomé adds examples showing the use of the word: in this case the noun phrase *dahec dugoc* 'narrow road' and *pit dugoc* 'narrow stick'; note that when the noun phrase is provided out of context, even the second element of a N + A sequence is always in singular base form. Finally, derivations are also indicated, such as *ducotiga* 'narrowness', an abstract noun formed with the derivational suffix *-tiga*.

(8) ***Dugoc***, *dugotie*, pl. *dugocho*, *dugogoddoe*, estrecho, angosto, puntiagudo, como olla que no tiene assiento o botija, Fem. *dugogué*; *dahec dugoc*, camino angosto, estrecho; *pit dugoc*, palo estrecho; *dugotiga*, angostura.
[***Dugoc*** (MS.BF), *dugotie* (MS.FF), pl. *dugocho* (MP.BF), *dugogoddoe* (MP.FF), tight, narrow, sharp-pointed, like pot which has no bottom or earthenware jug, Fem. *dugogué* (FS.BF); *dahec* (MS.BF) *dugoc* (MS.BF), tight, narrow road; *pit* (MS.BF) *dugoc* (MS.BF), narrow stick; *dugotiga* (MS.BF), narrowness.]

Some nominals have an epicene singular base form, such as *icha* (9). In this case, both masculine and feminine forms are listed together in the same canonical order established by Chomé.

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8   In the available data, one can see that the standard full form and the full form II have the same uses.

9   For instance, the masculine plural full form suffix *-oddoe* (-/odoe/) can nasalize into -/onoe/, transcribed by Chomé as *-onnoe* (ex. (1)) or *-onoe* (ex. (5)).

(9) **Icha**, *ichatie, ichatae*, pl. *ichao, ichai, ichaddoe, ichayie*, nuevo, nueva cosa; *borau icha*, ropa nueva; *guigueda icha*, casa nueva.
[**Icha** (M/F.BF), *ichatie* (MS.FF), *ichatae* (FS.FF), pl. *ichao* (MP.BF), *ichai* (MP.BF), *ichaddoe* (MP.FF), *ichayie* (FP.FF), new, new thing; *borau* (FS.BF) *icha* (M/F.BF), new clothes; *guigueda* (MS.BF) *icha* (M/F.BF), new house].

Chomé's dictionary is an invaluable source of information on the morphology of the base and full form, as well as gender derivation. By contrast, the indeterminate form is never provided in the dictionary, so that, apart from the general rules provided in the Old Zamuco grammar (Chomé 1958: 128), relatively little is known about the morphology of the indeterminate form. However, the dictionary is rich in examples and in some of them the indeterminate form is used. The same considerations apply to the so-called "full form II" (see Table 1). The little attention paid to the indeterminate form and full form II in the dictionary is due to the fact that in the language these forms occurred much less frequently than the standard full form, as one can see in the corpus of clauses and sentences extracted from the dictionary and the grammar.

The full form is also the most commonly used form in Ayoreo and Chamacoco. Although noun phrases in base form are restricted to nominal predication, thus making the plural base form also infrequent, the singular base form is the form to which suffixes are added in order to obtain the rest of the paradigm. This is particularly evident in *dugoc* /dugok/ (MS.BF) (8): the second velar consonant in *dogogoddoe* /dugogodoe/ (MP.FF) or *dugogué* /dugoge/ (FS.BF) can only be explained by the fact that the respective suffixes (*-oddoe* and *-e*) were added to the singular base form *dugoc* /dugok/, with subsequent voicing of /k/ in intervocalic position. In the base form plural *dugocho* /dugotɕo/, /tɕ/ is also due to palatalization of /k/, which merges with the suffix *-yo* (-/jo/). The singular base form was also used to build the rest of the paradigm in the other Zamucoan languages, but this is less evident. While in Old Zamuco the singular base form is always shorter than the singular full form, in Ayoreo the full form often underwent phonetic erosion, so that it can coincide with the base form (10) or be even shorter. In Chamacoco the base form is no longer productive, and tends to be replaced by the full form, which in the masculine also loses the final segment(s) (11).

(10) Old Zamuco: *chaboto* (FS.BF), *chabototae* (FS.FF) 'bat'
    Ayoreo: *chaboto* (FS.BF), *chaboto* (FS.FF) 'bat'
    Chamacoco: *sabɨto ʔ* / *sabɨte ʔ* (FS.BF), *sabɨtita* (FS.FF) 'bat'
(11) Old Zamuco: *cucha* (MS.BF), *cuchatie* (MS.FF) 'thing'
    Ayoreo: *cucha* (MS.BF), *cuchai* (MS.FF) 'thing'
    Chamacoco: no base form, *kuchɨt* (MS.FF) 'thing'

This has consequences for lexicography, because in the main dictionary of Ayoreo (Higham *et al.* 2000) the singular full form is the citation form. Ulrich and Ulrich (2000) do not follow consistent criteria for nominals, although they prefer the full form as the citation form. Finally, the present author has used the singular full form as the citation form for Chamacoco (Ciucci 2013).

4   Nouns Inflected for Possessor

In Zamucoan all nouns can be possessed, with the exception of proper nouns. There is however a difference between nouns which express the possessor through a prefix ("inflected for possessor") and those which do not mark the possessor ("uninflected for possessor"). This opposition between nouns inflected and uninflected for possessor is found in most Chaco languages (Fabre 2007). Table 2 features the possessive inflection of Old Zamuco. Table 2 is not exhaustive, because one can find interesting exceptions (concerning not only possessive morphology) in the dictionary, which will be discussed in future papers.

Table 2: Old Zamuco possessive inflection (adapted from Ciucci & Bertinetto 2017).

1S	2S	3	REFL	1P	2P	GF
y-V-root *ch*-V-root *z*-V-root	Ø-*a*/V-root	PREFIXAL NOUNS: *d*-V-root *g*-V-root THEMATIC NOUNS: Ø-V-root RADICAL NOUNS: Ø-Ø-root	*d*-*a*/V-root	*ay*-V-root *az*-V-root	*ay*-V-root *az*-V-root	*p*-V-root *d*-V-root *g*-V-root Ø-Ø-root

There is no distinction in the third person between singular and plural, but between a reflexive third person (REFL), which is coreferent with the subject, and a "plain" third person, non-coreferent with the subject. The latter person, henceforth referred to as third person, is the least predictable of the paradigm and its morphological shape is related to the inflectional classes, as reported in the column of the third person. Many possessive nouns also have a form which expresses an unspecified or no possessor, called "generic form" (GF) (Bertinetto 2014a; Ciucci 2016). Such an unspecified possessor marker for nouns with possessive inflection is found in most Chaco languages (Campbell & Grondona 2012: 646). In Zamucoan, the alienability vs inalienability of a noun correlates with the presence of a generic form or lack thereof.

When a noun inflected for a possessor has no generic form, its citation form is the third person of the singular base form, as in *canariga* (12). The following forms are also in the third person. After the translation, the abbreviation <u>pos.</u> for 'possessive' (Spanish: *posesivo*) introduces the possessive inflection. Chomé systematically reports: (i) the first person singular; (ii) the second person singular; (iii) the third person (sometimes omitted if it coincides with the second singular); (iv) the first person plural and the second person plural, which are homophonous. All of these persons are always in singular base form. The only person not provided is the reflexive third person. This is because it is very regular and can be obtained by adding *d-* to the second person singular (Chomé 1958: 142). One can however observe some forms of reflexive third person in the examples of the dictionary: e.g. *ch-etig-are* (3.RLS-stretch_out) *d-amaneca-tie* (REFL-arm-MS.FF) 's/he stretches out her/his arm'.

(12) ***Canariga***, *canarigatie*, <u>pl.</u> *canarigao*, *canarigannoe*, amistad mala, luxuria, <u>pos.</u> *yiganariga*, *aganariga*, *canariga*, <u>pl.</u> *ayiganariga*; *canarïmiecoda*, muy luxurioso; v. *coda*.
[***Canariga*** (3.MS.BF), *canarigatie* (3.MS.FF), <u>pl.</u> *canarigao* (3.MP.BF), *canarigannoe* (3.MP.FF), bad friendship, lechery, <u>pos.</u> *yiganariga* (1S.MS.BF), *aganariga* (2S.MS.BF), *canariga* (3.MS.BF), <u>pl.</u> *ayiganariga* (1P/2P.MS.BF); *canarïmiecoda*, very lecherous; v. *coda*.]

If a noun has the generic form, this can be indicated after the possessive inflection, preceded by the abbreviation <u>Abs.</u> (Spanish *absoluto* 'absolute'), as in *didai* (13). The generic form is in singular base form, as usual, and the citation form is the third person.

(13) ***Didai***, *didaitie*, <u>pl.</u> *didaio*, *didaioddoe*, pata de los animales, pié del hombre, çapato, <u>pos.</u> *yiriddai*, *ariddai*, *diddai*, <u>pl.</u> *ayiriddai*, <u>Abs.</u> *piriddai*.
[***Didai*** (3.MS.BF), *didaitie*, <u>pl.</u> *didaio*, *didaioddoe*, animal leg, human foot, shoe, <u>pos.</u> *yiriddai* (1S.MS.BF), *ariddai* (2S.MS.BF), *diddai* (3.MS.BF), <u>pl.</u> *ayiriddai* (1P/2P.MS.BF), <u>Abs.</u> *piriddai* (GF.MS.BF).][10]

However, Chomé mostly chooses the generic form as the citation form, as in *carup* (14), while the third person is provided only within the possessive inflection. This is consistent with the fact that in

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10   *Didai* and *diddai* are the same form. Chomé is not consistent with the use of double consonants in the orthography: they were possibly used in order to indicate the length of the preceding vowel (Kelm 1964: 462).

the grammar he analyzes the possessive inflection as if it were built from the generic form (Chomé 1958: 140-142). Actually, it is more appropriate to consider the third person, rather than the generic form, as the base of the possessive paradigm (Ciucci 2016). This could be the reason why Chomé sometimes uses the third person as the citation form, despite the presence of a generic one, as in *didai* (13). This fluctuation between third person and generic form has also to do with the fact that their formation is lexically idiosyncratic, so that this raised the problem of which one to choose as the entry word. From a modern perspective, the generic form should not be put in relation with the whole paradigm, as Chomé did, but just with the third person, which is the base of the possessive paradigm (Ciucci 2016). Indeed, it is possible to identify both nouns where the third person derives from the generic form, and nouns where the opposite occurs (Ciucci & Bertinetto 2017: 323).

(14)   ***Carup***, *carubitie*, pl. *carubio*, *caruboddoe*, cuerda, soga, pos. *yigarup*, *agarup*, *igarup*, pl. *ayigarup*. [***Carup*** (GF.MS.BF), *carubitie*, pl. *carubio*, *caruboddoe*, rope, cord, pos. *yigarup* (1S.MS.BF), *agarup* (2S.MS.BF), *igarup* (3.MS.BF), pl. *ayigarup* (1P/2P.MS.BF).]

5   Verbs and Verbal Paradigms in the Old Zamuco Dictionary

All Zamucoan languages are tenseless (Bertinetto 2014b).[11] Old Zamuco verbs display a distinction between realis and irrealis mood, which has partly disappeared in Ayoreo and Chamacoco (Ciucci & Bertinetto 2015). Table 3 briefly illustrates the verb inflection of Old Zamuco. The third person is the most idiosyncratic, and its shape determines the inflectional class of the verb. It is the only person which lacks singular vs plural distinction.

Table 3: The verb inflection of Old Zamuco (adapted from Ciucci & Bertinetto 2015).

	REALIS	IRREALIS
1S	*a*-V-root	*y*-/*ch*-/*z*-V-root
2S	*d-a*/V-root	Ø-*a*/V-root
3	*ch*-/*t*-/*z*-Ø-(V)-root	*d*-/*n*-/Ø-(V)-root
1P	*a*-V-root-suffix	*y*-/*ch*-/z-V-root-suffix
2P	*d-a*/V-root-suffix	Ø-*a*/V-root-suffix

Below is a typical dictionary entry for a verb. In the following analysis, the English translation will be divided into four parts (16-19).

(15)   ***Airaha***, *daraha*, *chiraha*, pl. *airahago*, *darahao*, saber, aprehender, aprender, N. *ca chiraha*, 3.ᵃ *ca diraha*; *pirahac*, sabido, etc., pos. *chirahac*, *arahac*, *irahac*, pl. *ayirahac*; *pirahazore*, el que sabe, conoce; *pirahariga*, conocimiento, etc.; *Tupâde iraharigatie ome cuchaddoe ca iruericuz*, es infinita la sabiduria de Dios; *airaha ezabedayie*, sé leer; *airaha poriyie*, saber trepar en arbol; *airaha teutie*, bolver en si el que desvariaba; *e airaha*, *ainarañumé*, resabiado ser; *airaha quitic*, comprehender, alcanzar con el entendimiento; *ca diraha dirire peatic*, es basto, rudo, tupido de entendimiento; *ca araha dirire peatic*, sois una bestia, lo tienen por suma injuria; *irahezore*, vel, *iraheque*, el que no sabe; *chirahezore*, yo soi el que no sabe, *arahezore*, tu eres el que no sabe, etc., Fem. *iraheto*; *deachatie iraheque*, vel, *irahezore*, *cuchuzoda dateputigatie*, etc., si alguno no supiere la gravedad del pecado, etc.

The citation form is always the first person singular realis, followed by the other persons of the irrealis, and by the Spanish translation in the infinitive (16). In addition, Chomé shows the negation of

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11   More precisely, Zamucoan languages belong to a group of languages which Bertinetto (2014b) calls "radical tenseless" languages. Radical tenselessness is a rare feature.

first singular and third person. Since the negation falls within the scope of the irrealis, what Chomé actually does is to provide the irrealis of the first singular and third person, preceded by the negative particle *ca*. This scheme recurs systematically for all verbs reported in the dictionary (excluding of course defective and uninflectable verbs).

(16) [***Airaha*** (1s.RLS), *daraha* (2s.RLS), *chiraha* (3.RLS), pl. *airahago* (1p.RLS), *darahao* (2p.RLS), to know, to learn, to understand, N. *ca* (NEG) *chiraha* (1s.IRLS), 3.ª *ca* (NEG) *diraha* (3.IRLS)]

Following the system used in Latin dictionaries, Chomé establishes the first person realis (which he considers the present indicative) as the citation form.[12] Since the first realis has the prefix *a-*, the vast majority of entries for verbs (i.e., all but irregular and defective ones) are found in the letter *A*, which covers 152 of the 242 pages of the dictionary, for a total of 900 entries out of 2,110. In the grammar and in the examples of the dictionary, one can see some irregular verbs with first person realis beginning with *o-*, possibly owing to deletion of prefix *a-*, such as 'to give': *ozi* (1s.RLS), *izi* (3.RLS). Unfortunately, there is limited information on these verbs, which are particularly interesting for diachronic reasons (Ciucci & Bertinetto 2015), because the letter *O* was in the lost part of the manuscript. In Chamacoco the citation form of the verb is the third person realis (Ulrich & Ulrich 2000; Ciucci 2013), while in the Ayoreo dictionary by Higham *et al*. (2000) the verb's theme is the citation form, except that very often also the third person is provided when it is irregular.[13]

Entries for verbs provide a large part of the verb paradigm. The only missing persons are the second singular irrealis, and the first and second plural irrealis. However, these were easy to reconstruct for the reader who had some knowledge of Old Zamuco grammar: indeed the second singular irrealis only differs from its realis counterpart in that it lacks the prefix *d-*. The first and second persons plural irrealis are derived from the first and second singular irrealis by adding the same pluralizing suffixes as the respective realis persons.

In his grammar, Chomé gives a complicated picture of verb inflection, identifying a number of moods and tenses (Chomé 1958: 143-148) which actually do not exist, because they are just the combination of verb forms with independent adverbial particles (e.g., expressing past or future reference). This is not surprising, because Chomé's view of grammar is mostly based on the Latin model. In the dictionary, however, Chomé had the brilliant intuition that the verb system could be reduced to the opposition between what he considered the present indicative (the realis mood) and the forms used when the verb is negated (the irrealis mood).

From the verb root one can derive a noun with passive meaning: *pirahac* (17), which one can translate as 'known', 'who/what is known', 'known person/thing'. It is usually provided in the generic form, followed by the possessive inflection, according to the same scheme seen in §4. Chomé also provides the nomen agentis (*pirahazore*) derived from the verb root by means of the suffix *-zore* or *-gore*, to which he often adds the abstract noun (*pirahariga*). There are reasons to surmise that the abstract noun is not always directly derived from the verb root, but it can also be derived from the passive deverbal noun (Ciucci 2016: 493-508). The deverbal noun with passive meaning and the nomen agentis are provided immediately after the verb, because they are considered participles by Chomé (Chomé 1958: 145). Note that in this example only the generic form of the nomen agentis and the abstract noun are reported, possibly because their possessive inflection is identical with that of *pirahac*.

(17) [*pirahac* (GF.MS.BF), known, etc., pos. *chirahac* (1s.MS.BF), *arahac* (2s.MS.BF), *irahac* (3.MS.BF), pl. *ayirahac* (1p/2p.MS.BF); *pirahazore* (GF.MS.BF), the one who knows; *pirahariga* (GF.MS.BF), knowledge, etc.]

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12 The same criterion is frequently used by early lexicographers of Native American languages (Smith-Stark 2007: 60-61).

13 Ayoreo has no distinction between third person realis and irrealis.

After deverbal nouns one can find examples of expressions or clauses, sometimes even sentences, in order to see the uses of the verb (18). The dictionary is also very rich in examples, particularly in entries for verbs, but also in entries for nouns and adjectives.[14] These are very interesting data for linguistic analysis. Note that Chomé very often gives examples which are translated with the Spanish infinitive: in this case the respective Old Zamuco verb is in the first person singular realis, that is in the citation form (below, I have only glossed the relevant verbs).

(18) [*Tupâde iraharigatie ome cuchaddoe ca iruericuz*, the wisdom of God is infinite; *airaha* (1S. RLS) *ezabedayie*, I know how to read; *airaha* (1S.RLS) *poriyie*, to know how to climb a tree; *airaha* (1S.RLS) *teutie*, to come round, the one who was delirious; *e airaha* (1S.RLS), *ainarañumé*, to be knowing; *airaha* (1S.RLS) *quitic*, to understand, to get to understand; *ca diraha* (3.IRLS) *dirire peatic*, they have bad understanding; *ca araha* (2S.IRLS) *dirire peatic*, you are a brute, they consider it the supreme insult;]

The deverbal nouns from the verb 'to know' have two antonyms (19). From the available data, one can see that this is not very frequent in Old Zamuco,[15] and this is why Chomé reports them, along with some examples, in the final part of the entry. Note that here the translations by Chomé are not literal. Since *iraheque* (literally 'what is unknown') and *irahezore* can be used interchangeably, Chomé assigns to both the meaning of *irahezore*. Here both nouns are in third person, which suggests that there was no generic form. *Iraheto* is the regular feminine form of *irahezore*. Finally, the last example is part of a sentence: *cuchuzoda dateputigatie* 'the gravity of the sin' is the subject and *deachatie iraheque* or *deachatie irahezore* carries out nominal predication (owing to the final element in base form). The literal meaning is 'the gravity of the sin is the unknown thing (*iraheque*) of someone' or (implying some sort of personification) 'the gravity of the sin is the unknowing one (*irahezore*) of someone'.

(19) [*irahezore* (3.MS.BF), or, *iraheque* (3.MS.BF), the one who does not know; *chirahezore* (1S.MS.BF), I am the one who does not know (lit. my unknowing one), *arahezore* (2S.MS.BF), you are the one who does not know (lit. your unknowing one), etc., <u>Fem.</u> *iraheto* (3.FS.BF); *deachatie iraheque*, or, *irahezore*, *cuchuzoda dateputigatie*, etc., if someone did not know the gravity of the sin, etc.]

In (20) there is a defective verb from the dictionary: one can see that its paradigm is limited to third person realis and irrealis, with the third person realis as the citation form.

(20) ***Zora***, assomar el sol al horizonte quando nace, assomar los sembrados; *e chacaddoe zora*, ya nace lo que sembré; *guiede zaî zora*, recien apunta el sol; <u>N.</u> *ca norâ*.
[***Zora*** (3.RLS), to come up the sun over the horizon at sunrise, to come up what is sown; *e chacaddoe zora*, what I sowed already comes up; *guiede zaî zora*, recien apunta el sol; <u>N.</u> *ca* (NEG) *norâ* (3.IRLS).]

The verb *zora* has an interesting feature: it shows the prefix *z-* (/s/-) for the third person realis. In Chomé's grammar one can find some hints of a group of verbs with this prefix (Ciucci 2016: 227-228), but this was an open question, because the only example provided in the grammar was difficult to interpret (Ciucci & Bertinetto 2015: 17). However, the new data from the dictionary permit the identification of a small group of verbs characterized by the third person realis prefix *z-*, by the third person irrealis prefix *n-*, and by the first irrealis prefix *z-*. Note that *n-* here is not due to nasal harmony, but is precisely selected by this group of verbs. In (21) I report the dictionary entry for one of them. In the translation I have only glossed the verb paradigms, and have segmented the prefixes which distinguish this group of verbs from the others.

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14   The fact that there are almost no examples in (6-9) and (12-14) is due to the fact that I have purposely chosen short entries in order to focus on the main features of the dictionary.

15   This is also indirectly confirmed by comparison with Ayoreo. In Chamacoco, deverbal nouns have mostly disappeared.

(21) ***Aoz***, *daoz*, *zoz*, <u>pl.</u> *ahoco*, *daozo*, echar fuera animales, etc., <u>N.</u> *ca zoz*, <u>3.ª</u> *ca noz*; *pozic*, echado fuera, <u>pos.</u> *zocic*, *aozic*, <u>pl.</u> *azozic*; *pozigore*, el que echa fuera; *aoz ore*, forçalos, echalos fuera de su fortaleza; *aoz gacayie ahâ inaguatae*, acorrala las vacas; *aoz cavayuoddoe*, arrea los cavallos; *yote ozic*, broça que trae el rio; v. *zozic*; *yonuratie zoz oyidoddoe*, *pachaddoe*, la avenida trae pescado, broza, etc.

[***Aoz*** (1s.RLS), *daoz* (2s.RLS), *z-oz* (3.RLS), <u>pl.</u> *ahoco* (1p.RLS), *daozo*, to cast out animals, etc., <u>N.</u> *ca z-oz* (1p.RLS), <u>3.ª</u> *ca n-oz* (3.IRLS); *pozic*, cast out, <u>pos.</u> *zocic*, *aozic*, <u>pl.</u> *azozic*; *pozigore*, the one who casts out; *aoz ore*, force them, deprive them of their strength!; *aoz gacayie ahâ inaguatae*, pen the cows!; *aoz cavayuoddoe*, spur on the horses!; *yote ozic*, brushwood which the river brings; see *zozic*; *yonuratie zoz oyidoddoe*, *pachaddoe*, the flood brings fish, brushwood, etc.]

6   Conclusions

The Old Zamuco dictionary by Chomé is not only the main source on this language, but also a document of exceptional interest, owing to the quality and quantity of data. The way in which Chomé deals with the unusual nominal suffixation of Old Zamuco is original and reveals a deep understanding of the language. The criteria used by Chomé are also very effective with respect to the forms of verbal and possessive inflection which he decided to provide in each entry. The dictionary is very rich in grammatical information. As far as suffixation is concerned, one can identify at least 856 masculine paradigms and 487 feminine paradigms (including those with epicene singular base form). Considering also masculine nominals for which suffixation is not provided, the corresponding feminine is indicated 533 times. In the dictionary are also 930 nouns for which the possessive inflection is reported, along with the paradigm of about 850 verbs and verbal periphrases (excluding uninflected verbs).

As shown in this paper, Chomé's data could hardly be interpreted without previous descriptive and comparative research on Zamucoan, carried out by Pier Marco Bertinetto and the present author. The analysis of the dictionary is also an example of how diachronic studies, such as Ciucci & Bertinetto (2015, 2017), can feed into the interpretation of synchronic data, such as those collected by Chomé.

The dictionary permits to make interesting additional findings with respect to what was previously known (Ciucci 2016): the group of verbs with third person prefix *z-* is just one example. Another concerns nominal suffixation: in the grammar, Chomé never documented the suffix *-tac* for the feminine singular indeterminate form (see Table 1). However, its cognate is found in Ayoreo and Chamacoco, so that one could question whether it was also present in Old Zamuco (Ciucci 2016: 747-748). The dictionary solved the dilemma with a few occurrences of *-tac*. Possessive classifiers are a further example: they are present in all Zamucoan languages, but they could not be studied in Old Zamuco, owing to the paucity of information in the grammar. By contrast, the dictionary contains interesting data on classifiers, which can thus be compared with Ayoreo and Chamacoco (Ciucci & Bertinetto, forthcoming). The dictionary also allows us a better understanding of Old Zamuco syntax. With the previously available data it was not possible to know whether Old Zamuco had so-called para-hypotactical structures, as in Ayoreo or Chamacoco (Bertinetto & Ciucci 2012). By the many examples in the dictionary, one can see that Old Zamuco employed a large number of paratactical structures, but there is no example of para-hypotaxis. The importance of the dictionary is not limited to Zamucoan, indeed, Ciucci (2014) has identified a number of borrowings between Zamucoan and other Chaco families, particularly Guaycuruan and Mataguayan, so that the data in the dictionary are also relevant for studies on language contact. Kelm (1964: 815) interprets some examples from Chomé's grammar in ethnographical terms and identifies similarities with the Ayoreo society. Ultimately, the dictionary is also an interesting source of anthropological information about the Old Zamuco speaking people, and a first analysis confirms that Ayoreo and Old Zamuco have similar cultural background (see Ciucci, forthcoming 2019).

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