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21. Non-verbal predication in Old Zamuco

This chapter describes non-verbal predication in †Old Zamuco, the language that gave its name to the Zamucoan family (southeastern Bolivia, northern Paraguay). Old Zamuco is the most conservative Zamucoan language, which is also reflected in non-verbal predication. After introducing Old Zamuco and its main features (§1), the chapter is organized according to the semantic types of non-verbal predication: identity and inclusion predication (§2), adverbial predication (§3–5), existential predication (§6), possessive predication (§7), quantification (§8) and ostension (§9). It then addresses the interaction of non-verbal predication with word classes (§10), negation (§11), TAM features (§12) and complex constructions (§13). Finally, §14 offers some conclusions.

1. Old Zamuco and its family

Old Zamuco (henceforth OZ), spoken in the 18th century, is the earliest documented Zamucoan language. It was chosen by the Jesuits, among other Zamucoan varieties, to evangelize the Zamucoan peoples in the mission of San Ignacio de Zamucos in northern Chaco (southeastern Bolivia, northern Paraguay), as well as in other missions of southeastern Bolivia (see Map 1). Founded in 1723, San Ignacio de Zamucos was abandoned in 1745, and there are only hypotheses on its location (see Map 1). This chapter is based on the reanalysis of the data collected by the French Jesuit Ignace Chomé (1696–1768), author of a grammar and a dictionary. While the former was published posthumously (Chomé 1958 [before 1745]), I recently rediscovered the manuscript containing the dictionary (*Vocabulario de la lengua zamuca*). I am preparing a critical edition of this document (Ciucci, forthcoming), which is the main source on the language (see Ciucci 2018 for the document's description).

Today, two Zamucoan languages are spoken: Ayoreo (5,000 speakers in southeastern Bolivia and northern Paraguay) and Chamacoco (2,000 speakers in northern Paraguay). OZ is the most conservative language of the family (Ciucci 2016, 2021a). Although it is lexically very close to Ayoreo (Kelm 1964), the latter does not seem to be a direct descendant of OZ (Ciucci 2021a, b). Data for Ayoreo and Chamacoco come from Morarie (2011), Bertinetto (2014a), Ciucci (2016) and my fieldwork. The examples are in the orthography of each language. The language is not indicated in the OZ examples reported below.

While most South American Indigenous languages are agglutinating, Zamucoan languages are fusional. They are nominative-accusative languages with constituent order SV/AVO. The possessor precedes the possessum, and the noun its adjectival modifiers. Common word classes in all Zamucoan languages are verbs, nouns, adjectives, adverbs, demonstratives, pronouns, adpositions, number words, quantifiers, possessive classifiers, ideophones and interjections. Verbs are radically tenseless (Bertinetto 2014b), only displaying a modal distinction between realis and irrealis.

Zamucoan has a class of adjectives, but the difference from nouns is not always straightforward: both share the same suffixation, nouns can have adjectival function (see, for instance, ex. 14, 95), and adjectives can be NP heads (29b). The main morphological difference is that, while adjectives have no inflectional prefixes, most nouns have a personal prefix to index the possessor and often also one for unspecified or non-existing possessor (here labeled GF “generic form”).

Zamucoan languages have adpositions. Many adpositions stem from nouns and have noun-like inflection (see, for instance, ex. 81, 83).

Map 1. OZ and its varieties in the 18th Century (Ciucci 2021b).

The Zamucoan peoples in the 18th century



1.1. The suffixation of Zamucoan nouns and adjectives

The most conspicuous feature of Zamucoan non-verbal predication is the suffixation of nouns and adjectives, of which Table 1 offers a synoptic view. A portmanteau suffix expresses gender (masculine, feminine), number (singular, plural) and a distinction between predicative vs. argument case. The latter also splits into one form unmarked for determinacy and the other specialized for indeterminacy. To describe this rare threefold grammatical system, the labels “predicative form”, “argument form” and “argument indeterminate form” (or simply “indeterminate form”) are used here.¹ The OZ suffixes between square brackets were less frequent and disappeared in present-day languages.

Table 1. The inflectional suffixation of Zamucoan nouns and adjectives.

	OZ		Ayoreo		Chamacoco	
	Singular	Plural	Singular	Plural	Singular	Plural
Masculine predicative form	-Ø	-(y)o, -ño	-Ø	-(y)o, -ño	-Ø, -k, -(y)ak	-(y/w)o, -(y)e, -tso, -cho, -lo, -no
Masculine argument form	-(i)tie [-re, - (d)de, -nne, -ye]	-oddoe, -onnoe [-ao, -iao, -rao]	-i,	-ode, -one	-(i)t, -(i)ch	
Masculine indeterminate form	-nic, -ric, -tic	-nigo, -rigo, -tigo	-nic, -ric, -tic	-ningo, -rigo, -ringo, -tigo	-ĩrk, -tik,	-tiyo, -ĩr
Feminine predicative form	-Ø, (-e)	-(y)i, -ñi	-Ø, (-e)	-i	-Ø, -a [?] , -e [?] , -o [?] , -ĩ [?]	-(y/w)e
Feminine argument form	-(i)tae [-ac]	-(i)yie, -(i)ñie [-ai]	-Ø, -(i)a, (-e)	-(i)die, -(i)nie	-(i)ta, -(i)cha	
Feminine indeterminate form	-nac, -rac, -tac	-rigui	-nac, -rac, -tac	-ningui, -rigui, -ringui, -tigu	-rã(k), -tã(k)	-ĩr

The predicative form (henceforth PRED) typically marks the NP with predicative function, such as *erap* ‘forest’ in (1). According to the typology described in Chapter 1 (Creissels, Bertinetto, and Ciucci, this volume), this qualifies as a Subtype IIIb construction, whereby the non-verbal element is marked by its inflection (see Section 2.1).

- (1) *ore amarai-tie erap.*
 3PL delight-M.SG.ARG forest[M.SG.PRED]
 ‘Their delight (is) the forest.’

¹ In previous works (e.g. Bertinetto 2014a; Ciucci 2016; Ciucci and Bertinetto 2019) different labels were used for this morphological tripartition.

By contrast, the argument form (henceforth ARG) indicates that the NP is a core or peripheral argument: ‘forest’ is the object in (2) and part of the adpositional phrase in (3).

- (2) *ore ch-inorâ eram-itie*
 3PL 3.REAL-be.delighted.with forest-M.SG.ARG
 ‘They are delighted with the forest.’
- (3) *a-ituagore abai-tie ihi eram-itie*
 1SG.REAL-meet [2SG]husband-M.SG.ARG ADP forest-M.SG.ARG
 ‘I met your husband in the forest.’

The indeterminate form (henceforth INDET) has the same syntactic functions as ARG, but its referent is non-specific, as in (4), where the ‘place for overnight stay’ is still to be chosen, as contrasted with (5).

- (4) *ay-iregu-ric assi dit*
 1PL-place.for.overnight.stay-M.SG.INDET still [3]be.far
 ‘Our (to be found) place for overnight stay is still far away.’
- (5) *ay-iregu-dde dugut*
 1PL-place.for.overnight.stay-M.SG.ARG [3]have.enough.food
 ‘Our place for overnight stay has enough food.’

Although the INDET mostly occurs with argument function, a noun in this case can head a copula-less non-verbal predicate to express “ignorativity” in questions (6–7) (a different construction with an interrogative pronoun is also possible; see §2.4).

- (6) *a-bai-tigu=e?*
 2SG-destination-M.SG.INDET=INT
 ‘What (is) your destination?’
- (7) *i-rigu=e?*
 [3]name-M.SG.INDET=INT
 ‘What (is) his/her name?’

Although exemplified here for OZ, these basic uses of the cases are the same in all Zamucoan languages. Their inflection and morphosyntax were described in detail for Ayoreo and Chamacoco in Ciucci (2016) and Bertinetto, Ciucci, and Farina (2019). This threefold grammatical system is only documented in Zamucoan. OZ, owing to its early documentation, is the language that better preserves it, not only in terms of phonetic substance, but above all in terms of pervasive lexical marking, with almost no instances of syncretism (see Table 1). This is exemplified in Table 2 with a common noun.

Table 2. The case inflection of ‘thing’.²

‘thing’	SINGULAR			PLURAL		
	M.PRED	M.ARG	M.INDET	M.PRED	M.ARG	M.INDET
OZ	<i>cucha</i>	<i>cucha-tie</i>	<i>cucha-tic</i>	<i>cucha-o</i>	<i>cucha-ddoe</i>	<i>cucha-rigo</i>
Ayoreo	<i>cucha</i>	<i>cucha-i</i>	<i>cucha-ric</i>	<i>cucha</i>	<i>cucha-de</i>	<i>cucha-rigo</i>
Chamacoco	<i>kuch-it</i>		<i>kuch-ěrk / kuch-tik</i>	<i>kuch-e</i>		<i>kuchě-r(i)yo / kute-tijo</i>

While proper nouns are usually not inflected, some members of other word classes display some features of nominal inflection: this involves interrogative pronouns (§2.4), adpositions (§4–5), number words (§8), quantifiers (§8) and classifiers (§13).

1.2. The singular PRED

Tables 1 and 2 show the salience of the singular PRED within the paradigm of nouns and adjectives. Indeed, it usually coincides with the root/stem and, as such, is the starting point for any morphological operation, as illustrated in (8) (this still occurs in most Ayoreo nouns, such as ‘thing’ in Table 2). For this reason, the singular PRED was Chomé’s citation form. By contrast, for Ayoreo and Chamacoco speakers the citation form is usually the singular ARG. Indeed, the latter was simplified in Ayoreo (Table 2), while in present-day Chamacoco it often replaces the singular PRED in its traditional contexts of use.

- (8) ‘married (woman)’ *amanachugue-Ø* (F.SG.PRED), *amanachugue-tae* (F.SG.ARG),
amanachugue-i (F.PL.PRED), *amanachugue-yie* (F.PL.ARG)

The plural PRED originated from the addition of a pluralizer to the root/stem (8): its suffix is shorter than that of the corresponding argument and INDET (cf. Table 1). The existence of the plural suffix allows us to consider the PRED a separate entity from the root/stem, although the latter mostly coincides with the singular PRED.

Some root/stem allomorphy can only be explained considering the singular PRED: in (9), the consonants preceding the plural suffixes are the morphophonological reflex of the final consonant *c* (/k/) of the singular PRED (see Ciucci 2016 for more details).

- (9) ‘married (man)’ *acoterachuc* (M.SG.PRED), *acoterachu-tie* (M.SG.ARG), *acoterachuch-o*
(M.PL.PRED), *acoterachug-oddoe* (M.PL.ARG)

Even though the Chamacoco singular PRED often innovated by developing a suffix (cf. Tables 1–2), there are still many paradigms in which the singular PRED maintains its original status as base form (10).

- (10) Chamacoco ‘man’ *hnakirap* (M.SG.PRED), *hnakirb-ich* (M.SG.ARG), *hnakirb-o*
(M.PL.PRED/ARG), *hnakirb-itik* (M.SG.INDET), *hnakirb-tiyo* (M.PL.INDET)

² This noun has some irregular INDETS in OZ and Chamacoco.

While there are limited data on the OZ INDET, the selection of its allomorphs depends on the ending of the singular PRED, as described by Chomé (1958: 128). This is maintained, with some exceptions, in Ayoreo (Ciucci 2016: 479–485).

1.3. NP-internal configuration

Within the NP, the noun is followed by the adjective (11–12). Other modifiers can follow, such as number words (12), quantifiers, pronouns (13), demonstratives and nouns acting like adjectives (14). The number and case required by the referent and the syntactic context are only marked on the last element of the NP. The NPs in bold in (11–14) require ARG; the referent is singular in (11–12), plural in (13–14). All non-final elements of the NP are in singular PRED, independently of the referent’s number (13–14). However, there is always gender agreement between the NP head and the postmodifiers.

- (11) *orâ* *yot* *ucerena-tie*
 [2SG.IRR]bring water[M.SG.PRED] cold-M.SG.ARG
 ‘Bring cold water!’
- (12) ***Tupâ-de*** *ch-uetigare* *yog=ahâ* ***pavi***
 God-M.SG.ARG 3.REAL-gather 1PL=ADP priest[M.SG.PRED]
date ***nomarâ-tie*** *uddi*
 big[M.SG.PRED] one-M.SG.ARG [3]behind/under
 ‘God gathered us under the Pope (lit. the one big priest).’
- (13) ***ez-itie*** *ca* *d-addo* ***pore*** ***uña-iñie***
 frost-M.SG.ARG NEG 3.IRR-damage tree[F.SG.PRED] some-F.PL.ARG
 ‘The frost does not damage some trees.’
- (14) *a-piazup* ***uzoda*** ***a-poguead-oddoe,*** *gachaarigue?*
 2SG-action[M.SG.PRED] bad[M.SG.PRED] 2SG-hidden-M.PL.ARG how.many
 ‘How many (are) the sins you have hidden?’ (Lit. ‘Your bad actions hidden by you, how many (are)?’)

The internal structure of the NP is the same when its syntactic function requires PRED or INDET instead of ARG. The subject NP of (15) is in INDET. The NP in (16) is in plural PRED, and, as pointed out by Chomé (1958: 129), number agreement is not possible, so (16b) is not grammatical.

- (15) ***guirugue*** ***peyadugue-rac*** *y-ubai* *si=e?*
 charred.log[F.SG.PRED] used.to.light.up-F.SG.INDET 1SG-for [3]COP=INT
 ‘Is there a charred log to light me up?’
- (16) a. *nani* *uom-io*
 Indigenous[M.SG.PRED] good-M.PL.PRED
 ‘(They are) good Indigenous men.’
- b. **nani-o* *uom-io*
 Indigenous-M.PL.PRED good-M.PL.PRED
 [(They are) good Indigenous men]

The pre-final element of an adjectival NP can inflect for number and case only when the final element (invariably a modifier) cannot inflect for case. This occurs for instance with demonstratives (17) or the invariable quantifier *nez* (18).

- (17) *a-rahu* *por-itaē* *udda*
 2SG.IRR-cut tree-F.SG.ARG this.F.SG
 ‘Cut this tree!’³
- (18) *Tupâ-de* *ch-aquirâ* *yogu=ihī*
 God-M.SG.ARG 3.REAL-forbid 1PL=ADP
p-ipiazup *uzoda-ddoe* *nez*
 GF-action[M.SG.PRED] bad-M.PL.ARG all
 ‘God forbids us any sin (lit. all bad actions).’

If, instead, the NP includes a lexically expressed possessor, the latter is in ARG and precedes the head (19–20), as is usual in all Zamucoan languages. As for the marking of the possessum, it depends on the context: it is in ARG in (19) and in PRED in (20) for reasons explained in Sections 2.1 and 3.

- (19) *a-hu* *chuguper-itiē* *unno-tiē*
 1SG-pluck bird-M.SG.ARG wing-M.SG.ARG
 ‘I pluck a bird’s wing.’
- (20) *y-ai-tiē* *iguēda*
 1SG-father-M.SG.ARG [3]house[M.SG.PRED]
 ‘It (is) the house of my father.’

The possessor may less frequently be in PRED if the possessum is in ARG, as in (21–22) (Chomé 1958: 128). This “complementarity” of cases may help distinguish possessor from possessum. The singular PRED in (21) might be seen as a morphological simplification: indeed, the possessor in plural PRED (22) is uncommon. However, since in N+N compounds, as in (23), the first noun is usually in singular PRED, one might interpret the NP in (21) as a compound.

- (21) [*nani* *gadube-tiē*] *pero*
 Indigenous.man[M.SG.PRED] cudgel-M.SG.ARG break
 ‘The cudgel of the Indigenous man broke.’
- (22) *a-icaré* [*chugupe-ño* *yuaca-ddoe*]
 1SG.REAL-foresee.future.through bird-M.PL.PRED [3]cry-M.PL.ARG
 ‘I foresee the future through the songs of the birds.’
- (23) [*eddo* *piag-oddoē*]
 [3]eye[M.SG.PRED] door-M.PL.ARG
 ‘eyelids’ (plurale tantum)

³ OZ has proximal and distal demonstratives, but Chomé’s translations are not always consistent. I have sometimes adapted the translation to the actual meaning of the demonstratives.

2. Identity and inclusion predication

In Zamucoan, both identity and inclusion predication mostly involve the predicative inflection construction of Subtype IIIb (§2.1–2.4), as explained in Chapter 1. OZ also displays some instances of juxtaposition (§2.5) and copula constructions (§2.6–2.7).

2.1. The predicative inflection construction of Subtype IIIb

OZ exhibits the construction Subtype IIIb in its purest guise (Bertinetto, Ciucci, and Farina 2019: 164–178), for it involves a form (PRED) whose morphological exponents are shorter (i.e. formally simpler) than those of the non-predicative forms, with the singular PRED coinciding with the root/stem.

As anticipated in Section 1.1, when the predicate is headed by a noun (24–25) or an adjective (26), it takes PRED in both identity (24) and inclusion predication (25–26).

- (24) *Jesucristo-tie,* *ay-iconiga-tie* *garât*
 Jesus.Christ-M.SG.ARG 1PL-right-M.SG.ARG [3]origin[M.SG.PRED]
 ‘Jesus Christ is the origin of our right.’
- (25) *borau* *gom=ipuz-e,* *aga-ye*
 clothes[F.SG.PRED] good=AUGM-F.SG.PRED Jesuit.father-M.SG.ARG
gü-añera-tae *ome* *yu*
 3-ornament-F.SG.ARG for 1SG
 ‘The ornament of the Jesuit father for me are very good clothes.’
- (26) *a-rauya-tie* *uzoda*
 2SG-weeding-M.SG.ARG bad[M.SG.PRED]
 ‘Your weeding is bad.’

The subject is in ARG or INDET, like the subject of intransitive verbs and like any NP with argument function. In (24), the ARG suffix is added to a borrowed proper noun, ‘Jesus Christ’, which is an exception since proper nouns are usually uninflected. This helps distinguish the subject from the predicate in singular PRED. The latter coincides with the root/stem, with the exception of some adjectives, which display the suffix *-e* in the feminine singular PRED, as in (25).⁴

Examples (27–28) feature the plural PRED with a nominal (27) and an adjectival predicate (28); adjectival predicates agree in gender and number with the subject.

- (27) *pid-oddoe* *nez* *e’* *p-iborich-o* *ique*
 stick-M.PL.ARG all already GF-carbon-M.PL.PRED RETR
 ‘All the sticks are already (made) pieces of carbon.’
- (28) *y-iguie-tae* *ichichêra-nnoe* *uzoda-o*
 1SG-shirt-F.SG.ARG [3]seam-M.PL.ARG bad-M.PL.PRED
 ‘The seams of my shirt are bad.’

⁴ The suffix *-e* is also present in nouns but belongs to derivational morphology.

Since there is no formal distinction between identity and inclusion, the two semantic types are only distinguished by the context, cf. (29a) and (29b), respectively.

- (29) a. *eram-itie, baya-ddoe inaguap*
 forest-M.SG.ARG runaway-M.PL.ARG den[M.SG.PRED]
 ‘The forest is the hideout of the runaway people.’
- b. *iguada-tie, uzoda-ddoe inaguap*
 [3]house-M.SG.ARG bad-M.PL.ARG den[M.SG.PRED]
 ‘Her/his house is a den of mischievous people.’

An exception to gender agreement between subject and adjectival predicate is (30), where the feminine noun (‘darkness’) semantically functions as an adjective, agreeing only in number with the masculine subject.

- (30) *ay-iguada-ddoe dehaguddu-i*
 2PL-house-M.PL.ARG darkness-F.PL.PRED
 ‘Your houses are dark.’

2.2. The constituent order in identity and inclusion predication

In both identity and inclusion predication, the typical constituent order is subject-predicate (31), analogous to SV/AVO in verbal predication.

- (31) *ore iguada-ddoe nez, charutauch-o*
 3PL [3]house-M.PL.ARG all leak-M.PL.PRED
 ‘All their houses are full of leaks (lit. are leaks).’

However, the nominal (as opposed to adjectival) predicate can precede the subject (32–33) (cf. also 25), supposedly with topicalization intention.

- (32) *arigaddepuz veha-tie gozu*
 [2SG]occupation[M.SG.PRED] hunting-M.SG.ARG only
 ‘Only hunting is your occupation.’
- (33) *cucha pimoc Tupâ-de*
 entity[M.SG.PRED] not.seen[M.SG.PRED] God-M.SG.ARG
 ‘God is invisible (lit. a not seen entity).’

The expression of the subject is not obligatory if it can be inferred from the context. In (34–35), the subject is only made explicit by Chomé’s translation.

- (34) *yozech-o=ri!*
 wretched-M.PL.PRED=PROSP
 ‘Woe unto you!’ (Lit. ‘(You) will be wretched!’)
- (35) *e’ pigaric carup guebe-tie a*
 already tied[M.SG.PRED] [GF]rope[M.SG.PRED] metal-M.SG.ARG ADP
 ‘It is already tied with a chain (lit. metal rope).’

While the non-verbal predicate usually agrees in number with the subject (28), when plural subject pronouns follow the non-verbal predicate, the latter is always in singular PRED (43–44). This involves both nominal (43) and adjectival predication (44).

- (43) *pinaco* *picarac* *güaque=ó,* *añe-ño*
 if Christian[M.SG.PRED] 2PL=if [2SG.IRR]adorn-PL
ay-iru-oddoe *ome* *uyade*
 2PL-word-M.PL.ARG for each.other
 ‘If you are Christians, speak well of each other.’
- (44) *iramanachuc* *yoc*
 inseparable[M.SG.PRED] 1PL
 ‘We are inseparable.’

Examples such as (43–44) might reflect an archaic stage of Zamucoan before the creation of the plural PRED, in which the root/stem was used for both singular and plural referents.

While third-person pronouns and demonstratives usually follow the subject (36–37), as subjects, they can either follow (45, cf. 39) or precede the non-verbal predicate (46). In the latter case, the predicate agrees in number with the subject.

- (45) a. *p-imecêrac* *ite*
 GF-loved[M.SG.PRED] that.M.SG
 ‘He (lit. that) is loved.’
- b. *p-imecêrac* *ore*
 GF-loved[M.SG.PRED] 3PL
 ‘They are loved.’
- (46) a. *güite* *p-imecêrac*
 that.M.SG GF-loved[M.SG.PRED]
 ‘He (lit. that) is loved.’
- b. *ore* *p-imecêrach-o*
 3PL GF-loved-M.PL.PRED
 ‘They are loved.’

Third-person pronouns can also occur twice in the same clause: before and after the predicate.

- (47) a. *güite* *p-imecêrac* *ite*
 that.M.SG GF-loved[M.SG.PRED] that.M.SG
 ‘That is loved.’ (cf. 45a, 46a)
- b. *ore* *p-imecêrac* *ore*
 3PL GF-loved[M.SG.PRED] 3PL
 ‘They are loved.’ (cf. 45b, 46b)

Example (48) is no exception to number agreement between subject and predicate because ‘people’ is a singular collective noun. Its plural refers to many people or their totality (greater plural), a semantic feature that emerges in OZ number words (see §8).

- (48) *ore* *guit* *guahat*
 3PL people[M.SG.PRED] robust[M.SG.PRED]
 ‘They are robust people.’

2.4. Interrogative pronouns

Interrogative pronouns can head the non-verbal predicate (49–52). They are regularly clause-final. Since they have no case marking, as noted in §3.3, their predicative function is inferred from the subject’s case: ARG (49–51) or INDET (52). Note that ‘who’ (49) has the suffix usually found in ARG but only to express gender and number.

- (49) *uta-tie* *ite* *guio-itie?*
 person-speaking-M.SG.ARG there who-M.SG
 ‘Who is (the person) speaking there?’

- (50) *a-idai-tie,* *iriguihi=e?*
 2SG-village-M.SG.ARG which=INT
 ‘Which one is your village?’

- (51) *a-piazub-itie* *irigu=e?*
 2SG-what.is.done-M.SG.ARG what=INT
 ‘What is (it) that you have done?’

- (52) *a-piazu-tic* *irigu=e?*
 2SG-what.is.done-M.SG.INDET what=INT
 ‘What is (it) that you have to do?’

The interrogative words ‘who’ and ‘which’ (49–50) also appear as objects in verbal predication (53–54). Example (55) shows that, with predicative function, ‘who’ agrees in gender and number with the subject (cf. 49).

- (53) *a-bidi* *guio-itie?*
 2SG.IRR-call who-M.SG
 ‘Who will you call?’

- (54) *y-ividi* *iriguihi=e?*
 1SG.IRR-call which=INT
 ‘Which one will I call?’

- (55) *ugo-ddoe* *ite* *guio-ddoe?*
 person.crying-M.PL.ARG there who-M.PL
 ‘Who are those crying there?’

2.5. The juxtaposition construction

All types of pronouns observed so far (§2.3–2.4) occurred in predicative inflection constructions of Subtype IIIb. Even though pronouns have no case exponents, their function is recovered from the flagging on the other clausal constituent. However, when both

(60) *choco ganape-i ome p-era-ddoe*
 1PL.COP useless-F.PL.PRED for GF-song-M.PL.ARG
 ‘We are useless for singing.’

(61) *oyo yozoch-o! / yozoc güaque!*
 2PL.COP poor-M.PL.PRED poor[M.SG.PRED] 2PL
 ‘You wretched!’ (Lit. ‘You are poor!’)

When the predicate includes a possessor, the latter separates the SAP copula from the predicate head, which confirms that these elements are not bound morphemes.

(62) *cho ai-tie imêcerac*
 1SG.COP [2SG]father-M.SG.ARG [3]loved[M.SG.PRED]
 ‘I am loved by your father.’ (Lit. ‘I am a/the loved of your father.’)

A construction involving the SAP copula with free pronouns is also possible. In this case, SAP pronouns follow the predicate, as in (63–65). This involves nominal (63) and adjectival predication (64–65). As already seen (§2.3), when the free pronoun follows the predicate, the latter is always in singular PRED, even though the subject is plural (64–65).

(63) *cho Pedro yu*
 1SG.COP Pedro 1SG
 ‘I am Pedro.’

(64) *oyo eque guaque*
 2PL.COP pregnant[F.SG.PRED] 2PL
 ‘You.PL are pregnant.’

(65) *choco imoic yoc*
 1PL.COP funny[M.SG.PRED] 1PL
 ‘We are funny.’

According to Chomé (1958: 151), the construction with SAP copula and free pronoun (66a) expresses identity predication and thus differs from that in which the intransitive subject is only indexed on the copula or the free pronoun (66b), which expresses inclusion.

(66) a. *cho p-imecêrac yu*
 1SG GF-loved[M.SG.PRED] 1SG
 ‘I am the loved one.’

b. *p-imecêrac yu / cho p-imecêrac*
 GF-loved[M.SG.PRED] 1SG 1SG GF-loved[M.SG.PRED]
 ‘I am loved.’

Also the use of two third-person pronouns or demonstratives (cf. ex. 47) would express identity predication according to Chomé. If this is so, this strategy would obviate the lack of a dedicated third-person copula form. However, Chomé’s translation of the examples in which the subject (SAP or third person) is indexed twice is not always consistent with identity predication (cf. ex 47).

- (71) *nani* *uyego* *di* *ique;*
 man[M.SG.PRED] some.INDET.M.PL [3]arrive RETR
u *Pedro,* *u* *Diego...*
 COP Pedro COP Diego
 ‘Some Indigenous men arrived, who are Pedro, Diego...’ (Lit. ‘It is Pedro, Diego...’)
- (72) *amuna* *unaha-nnoe* *dac;* *u* *ore*
 foreigner[M.SG.PRED] many-M.PL.ARG [3]come COP 3PL
nani-onnoe, *u* *ore* *cheque-yie*
 man-M.PL.ARG COP 3PL woman-F.PL.ARG
 ‘Many unbelievers come, they are men, they are women.’ (Chomé’s free translation: ‘There are men, there are women.’)

Although *u* is rare in OZ, these examples illustrate the change from demonstrative to copula, as found in Ayoreo. Such a pathway of development is well-documented cross-linguistically (cf. Pustet 2003: 55–56; Kuteva et al. 2019: 136–137; Mauri and Sansò, this volume). The demonstrative **u* can be reconstructed for Proto-Zamucoan since it also features in Chamacoco, where, instead, it originated the article (which precedes the NP head, like OZ *u*). Its paradigm is *uu* (M.SG), *wa* (F.SG), *uu* (M/F.PL). Chamacoco is the only Zamucoan language that developed the article.

3. Locational predication

Zamucoan does not distinguish between plain- and inverse-locational predication, but only has “general locational predication constructions” in Creissels’ (2019: 50–51) terms. Table 4 features the Zamucoan locational verbs or copulae.

Table 4. The locational verbs or verb-like copulae in Zamucoan.

	OZ	Ayoreo	Chamacoco
1SG	<i>a-igusi</i> (REAL), <i>y-igusi</i> (IRR) ⁵	<i>y-ugusi</i>	–
2SG	<i>da-gusi</i> (REAL), <i>a-gusi</i> (IRR)	<i>b-agusi</i>	–
3	<i>si</i> (REAL/IRR)	<i>ch-ugusi, deji</i>	<i>de</i> (REAL), <i>chihi</i> (IRR)

OZ employs the verb-like copula *si* for locational predication (73).

- (73) *a-igusi*’=*hi* *y-igueda-re*
 1SG.REAL-COP=ADP 1SG-house-M.SG.ARG
 ‘I am in my house.’

This copula has irregular inflection: *si* is the third person, identical for realis and irrealis, while in the rest of the paradigm the root is *-(i)gusi* (as in 73), which corresponds to the root of Ayoreo *-(u)gusi* (Ciucci and Bertinetto 2015: 67), which is a locational verb. The Ayoreo paradigm features an irregular third person, *deji*, a cognate of the defective Chamacoco locational verb *de* (Table 4). Since *-ji* of Ayoreo *deji* stems from the polyfunctional adposition *iji*, while *de-* is reminiscent of the demonstrative pronoun (cf. OZ *(ud)de* ‘this’

⁵ In Chomé’s transcription, <s> and <z> freely alternate to represent intervocalic /s/.

(M.SG) and Ayoreo *udé* ‘this’ (M.SG)), one may hypothesize that the development of this form is, *mutatis mutandis*, similar to that of the Ayoreo copula *u* (§2.7).

The OZ third-person copula *si* originated from the reinterpretation of the verb ‘live’, a cross-linguistically well-documented change (Pustet 2003: 54; Kuteva et al. 2019: 261; Mauri and Sansò, this volume). Indeed, *si* is occasionally still found with its original meaning (74).

- (74) *a-igusi tirogore Tupâ-de iru-oddoe*
 1SG-live according.to God-M.SG.ARG [3]word-M.PL.ARG
 ‘I live according to the words of God.’

In locational predication, the predicate nucleus can be a spatial adverb (75–77), a question word (78) or an adpositional phrase, which can be headed by a preposition (79), a postposition (80) or a circumposition (81) with the polyfunctional adposition (*i*)*hi* combining with the postposition ‘behind’.

- (75) *borau arime-yie si ite*
 clothes[F.SG.PRED] old-F.PL.ARG [3]COP there
 ‘The old clothes are there.’
- (76) *Tupâ-de si eraponañe*
 God-M.SG.ARG [3]COP everywhere
 ‘God is everywhere.’
- (77) *a-iguzi ide*
 1SG.REAL-COP here
 ‘I am here.’
- (78) *noz acêra-tie ome yu si=rigue?*
 wedge[M.SG.PRED] [2SG]promised-M.SG.ARG for 1SG 3[COP]=where
 ‘Where is the wedge promised by you for me?’
- (79) *a-cue-tie si ahâ y-igueda-tie*
 2SG-looked.for-M.SG.ARG [3]COP ADP 1SG-house-M.SG.ARG
 ‘What you are looking for is in this house.’
- (80) *si pi-tie gai*
 [3]COP stick-M.SG.ARG [3]on.top.of
 ‘It is on top of the stick.’
- (81) *si hi piago-tie gü-echa-tie*
 [3]COP ADP door-M.SG.ARG 3-behind-M.SG.ARG
 ‘It is behind the door.’

Within the adpositional phrase, ARG may occasionally be replaced by the singular PRED, thus resulting in a morphological simplification (82). This is, however, uncommon, and one might wonder whether this datum recorded by Chomé was actually representative of the speakers’ usage. In (83), this has possibly to do with the imperfect adaptation of the loanword ‘chest’, from Spanish *petaca* through Old Chiquitano *petacas*.

- (82) *si* *hi* *guddi*
 [3]COP ADP village[M.SG.PRED]
 ‘It is in the village.’ (Instead of *guddi-tie* = village-M.SG.ARG)
- (83) *si=’hi* *petacas-tae* / *petacas* *ahé-tie*
 [3]COP=ADP chest-F.SG.ARG chest[F.SG.PRED] [3]inside-M.SG.ARG
 ‘It is inside the chest.’

4. Non-spatial adverbial predication with the copula *si*

In addition to locational predication *stricto sensu*, the construction described in §3 can also encode non-spatial relationships. In (84–86), there is a metaphoric extension of the spatial use of the adpositions.

- (84) *si* *hi* *Tupâ-de* *mai-ñie*
 [3]COP ADP God-M.SG.ARG [3]hand-F.PL.ARG
 ‘It is in the hands of God.’ (Scil. ‘It depends on God.’)
- (85) *a-igusi=hi* *y-ayug-oddoe* *uddi*
 1SG.REAL-COP=ADP 1SG-will-M.PL.ARG [3]behind/under
 ‘I am free.’ (Lit. ‘I am behind/under my will.’)
- (86) *aga-ye* *eho-tie,* *a-gusi*
 Jesuit.father-M.SG.ARG next.to-M.SG.ARG 2SG.IRR-COP
a-yari-tie *ihi*
 2SG-stand-M.SG.ARG ADP
 ‘In the presence of the Jesuit father, stand (lit. be in your standing)!’

The copula *si* in (87–88) allows the comitative adpositional phrase to be the predicate.

- (87) *ore* *si* *uyade* *g-ari*
 3PL [3]COP each.other 3-with
 ‘They are together (with each other).’
- (88) *a-iguzi* *ite* *g-ari*
 1SG.REAL-COP that.M.SG 3-with
 ‘I am with him (that one).’

In (89–90), the interrogative adverb ‘when’ is the predicate in a copula construction with *si*.

- (89) *a-piazup* *uzoda-ddoe* *irue-tie*
 2SG-action[M.SG.PRED] bad-M.PL.ARG [3]end-M.SG.ARG
s=iriqu=eri=e?
 [3]COP=when=PROSP=INT
 ‘Until when will you sin?’ (Lit. ‘The end of your bad actions will be when?’)
- (90) *a-coniga-ric* *s=iric* *nei=é?*
 2SG-goodness-M.SG.INDET [3]COP=when PROSP=INT
 ‘When will you be good?’ (Lit. ‘Your goodness will be when?’)

5. Adverbial predication without copula

Adverbial predication can also occur without copula. For instance, *si* does not frequently occur in temporal predication. Chomé reported a limited number of temporal adverbs. Some of them, such as ‘midnight’, can head a copula-less non-verbal predicate in a juxtaposition construction: e.g. *e dedigau* (already midnight) ‘it is already midnight’. Also, time is often expressed by a noun in PRED (91) using a predicative inflection construction of Subtype IIIb. Note that (91) features a verbal and a non-verbal predicate without any coordination marker. This strategy makes up for the scarcity of adverbs in OZ, including manner adverbs (see below).

- (91) *a-piazu* *digacique=ri*
 2SG.IRR-do morning[M.SG.PRED]=PROSP
 ‘You will do that in the morning (lit. it will be morning).’

The difference between ‘midnight’ (*dedigau*) and ‘morning’ (91) is that the latter has the nominal suffixation addressed in §1.1, absent in adverbs. Owing to scarcity of data, it is hard to distinguish the few temporal adverbs from nouns used adverbially.

Like temporal predication (91), manner is often expressed by an adjective with predicative function. For instance, the singular PRED of the adjective ‘bad’ specifies that the action in (92) was done ‘in a bad way’. Similarly, ‘in vain’ is rendered by the PRED of the adjective ‘useless’ (93). In (94), ‘well’ is expressed by a predicate introduced by the linking morpheme *ega*, while in (92–93) there is asyndetic coordination.

- (92) *d-aguñere* *paho-tie* *uzoda*
 2SG.REAL-tan leather-M.SG.ARG bad[M/F.SG.PRED]
 ‘You tanned the leather badly (lit. it is bad).’

- (93) *piazu* *güec*
 [3]do useless[M.SG.PRED]
 ‘S/he does it in vain (lit. it is useless).’

- (94) *a-cat* *ega* *gom*
 1SG.REAL-advise CONN [3]be.good/good[M.SG.PRED]
 ‘I advise well (lit. it is well).’

Verbal and non-verbal predication cannot be distinguished in (94) because *gom* may be either the PRED of the adjective ‘good’ or the third person of the verb ‘be good’. While such cases of homophony are not common for adjectives, this applies to several number words (see §8).

The following examples feature locational predication (95), temporal predication (96) and the predicative use of a comitative adpositional phrase (97). Since these types of predication are mostly found with the copula *si* (§3–4), it is hard to say whether the copula here is simply omitted or these are true juxtaposition constructions.

- (95) *y-ipiazu-pec* *ch-iquebe-tie*
 1SG-action-HAB[M.SG.PRED] 1SG-what.is.interrupted-M.SG.ARG
irigu=e?
 where=INT
 ‘Where is what I interrupted (lit. my usual actions interrupted)?’

- (96) *irue-tie* *iric_iriqu=eri=e?*
 [3]end-M.SG.ARG when=PROSP=INT
 ‘Until when?’ (Lit. ‘The end will be when?’)

- (97) *ab-itie,* *ina* *ñu* *ite* *ique*
 [2SG]child-M.SG.ARG along.with 1SG there RETR
 ‘Your child was along with me there.’

Similarly, in (98) the predicate is an adpositional phrase headed by *ome* ‘for, to’, which can be the core of the predicate in copula constructions with *si* (see ex. 151, below).

- (98) *a-ru-ric* *ome* *irigu=e?*
 2SG-word-M.SG.INDET for what=INT
 ‘For what was your word?’ (Scil. ‘What did you say?’)

6. Existential predication

Zamucoan languages have a dedicated existential predicator (see Chapter 1): OZ =*uz*, Ayoreo *cuse* and Chamacoco =*sh*. The origin of this predicator, which dates back to Proto-Zamucoan, is unknown; it cannot be considered a verb because Zamucoan verbs are not clitics. In addition, while some Chamacoco personal affixes can occur on all verbs, Chamacoco =*sh*, like its cognates, is invariable. The argument of an existential construction is always in ARG (99) or INDET.

- (99) a. *arer-iti=uz* b. *hururu-yi=uz*
 cold-M.SG.ARG=EXIST cloud-F.PL.ARG=EXIST
 ‘It is cold.’ (Lit. ‘There is cold.’) ‘There are clouds.’

In locational predication (§5), the Ground phrase may be omitted so the construction acquires an existential reading, as in (100–101). This possibility is not common among languages that do not distinguish between plain- and inverse-locational predication (Creissels 2019: 65–66).

- (100) *ibica-ddoe* *utota-ddoe* *assi* *si*
 pinch-M.PL.ARG black.thing-M.PL.ARG still [3]COP
 ‘There are still the black marks of the pinches.’

- (101) *ducad-oddoe* *si* *uddao_erigû* [...] *ore* *ch-ipurigazore*
 some-M.PL.ARG [3]COP REL.M.PL 3PL 3.REAL-wallow
ihi *cuchuzoda-ddoe*
 ADP sin-M.PL.ARG
 ‘There are some people who wallow in the sin.’

7. Possessive predication

Zamucoan lacks a verb ‘have’. Possession in Zamucoan is most commonly expressed by means of an existential construction. In (102–103), the possessee is the argument of the existential predicator. If the possessor is lexically expressed, such as *poriyie* in (102), it is in ARG and precedes the possessum. The possessor may also be indexed by an overt possessive prefix (103), while in (102) *Ø-equetigara-ñi=uz* has a zero prefix for the third-person possessor.

- (102) *e por-iyie equetigara-ñi=uz*
 already tree-F.PL.ARG [3]first.flower-M.PL.ARG=EXIST
 ‘The trees already have their first flowers.’ (Lit. ‘There are already the first flowers of the trees.’)

- (103) *assi y-irami-ti=uz*
 still 1SG-strength-M.SG.ARG=EXIST
 ‘I still have strength.’ (Lit. ‘There is still my strength.’)

Since the possessor and the possessum are encoded as in a possessive NP (cf. 19–20), (102–103) are instances of the MODIFIED-POSSESSEE strategy (Chapter 1).⁶ This is a subtype of the S-POSSESSEE type, in which the possessum is the subject of an intransitive predicate and the possessor a non-core argument (Creissels 2019: 59; Chapter 1).

When MODIFIED-POSSESSEE constructions are negated, the possessum is in INDET because the non-existence or absence of the referent qualifies it as non-specific (104–105).

- (104) *ca y-irami-tic=uz*
 NEG 1SG-strength-M.SG.INDET=EXIST
 ‘I have no strength.’ (cf. 104)

- (105) *orâ pichautat auzocodda-tie, ca*
 [2SG.IRR]bring knife[M.SG.PRED] very.sharp-M.SG.ARG NEG
au-tic=uz udde
 cutting.edge-M.SG.INDET=EXIST this.M.SG
 ‘Bring a very sharp knife, this has no cutting edge.’ (Lit. ‘There is not the cutting edge of this.’)

The possessum is followed by the possessor if the latter is a demonstrative pronoun (105). This is also documented in positive clauses (106). The reverse order of possessor and possessum emphasizes the demonstrative. As seen in §2.3, demonstratives in non-verbal predication may occur in a non-canonical position.

- (106) *ama-nic=uz ate*
 [3]husband-M.SG.INDET=EXIST that.F.SG
 ‘She has a husband.’ [unspecified] (Lit. ‘There is a husband of hers.’)

The negation usually precedes the possessum (107) but can also follow it (108), thus separating it from the possessor. This is unusual and might be due to the topicalization of the latter.

⁶ This type of possessive predication is called “genitive-possessor” in Creissel (2019: 60).

- (107) *ca y-uube-tie manne-rac=uz*
 NEG 1SG-net-M.SG.ARG [3]cord-F.SG.INDET=EXIST
 ‘My net has no cord (to close it).’ (Lit. ‘There is no cord of my net.’)
- (108) *y-iguie-tae ca yurê-rac=uz*
 1SG-clothes-F.SG.ARG NEG lining-F.SG.INDET=EXIST
 ‘My clothes have no lining.’ (Lit. ‘There is no lining of my clothes.’)

Existential constructions with the locational copula *si* can also express possession through the MODIFIED-POSSESSEE strategy (109–110).

- (109) *ca ch-achoriga-ric si*
 NEG 1SG-anger-M.SG.INDET [3]COP
 ‘I have no anger.’ (Lit. ‘There is not my anger.’)
- (110) *assi ca y-ihurega-tie om=ore si ati, ore t-agu*
 still NEG 1SG-permission-M.SG.ARG for=3PL [3]COP when 3PL 3-eat
 ‘They ate it before having my permission.’ (Lit. ‘When there was not yet my permission for them...’)

Depending on the context, possessive constructions with *si* may inferentially convey deontic meaning when the possessum is in INDET, thus suggesting that the entity referred to does not exist yet (111).

- (111) a. *ch-iruzarâ-tigo si*
 1SG-what.is.written-M.PL.INDET [3]COP
 ‘I have to write.’ (Lit. ‘There is [supposedly] something written by me.’)
- b. *y-inoriga-ric si*
 1SG-going.away-M.SG.INDET [3]COP
 ‘I have to go away.’ (Lit. ‘There is my [supposed] going away.’)

In South America, the use of existential predication for possession is also observed in Tupi-Guarani languages, which, like Zamucoan, have the predicative inflection construction of Subtype IIIb (Bertinetto, Ciucci, and Farina 2019; Dietrich, this volume)

OZ also displays the other subtype of S-POSSESSEE, the OBLIQUE-POSSESSOR, characterized by the possessor “showing some kind of oblique marking” (Creissels 2019: 60; Chapter 1). As shown in (112–114), they are instances of adverbial predication with the copula *si* (§3–4): the possessum is the subject, and the possessor has comitative marking (cf. ex. 87–88).

- (112) *a-pichautai-tie si ique acote-tae g-ari*
 2SG-knife-M.SG.ARG [3]COP RETR [2SG]wife-F.SG.ARG 3-with
 ‘Your wife already has the knife.’ (Lit. ‘Your knife is already together with your wife.’)

Since the postposition ‘with’ indexes the person of its argument (112), the possessor can just be expressed by the personal prefix of ‘with’, as in (113), where in addition ‘with’ combines with the polyfunctional adposition (*i*)*hi* to form a circumpositional phrase.

- (113) *y-ibora-ddoe* *assi* *si=hi* *y-ari*
 1SG-type.of.food-M.PL.ARG still [3]COP=ADP 1SG-with
 ‘I still have some food.’ (Lit. ‘My food is still with me.’)

Unlike possession expressed with =uz (§6), when the oblique-possessor construction is negated, the possessum is in ARG rather than in INDET.

- (114) *ca* *borau-tae* *si* *hi* *g-ari*
 NEG clothes-F.SG.ARG [3]COP ADP 3-with
 ‘S/he has no clothes.’ (Lit. ‘The clothes are not with her/him.’)

OZ also displays a subtype of the S-POSSESSOR strategy of plain-possessive predication, the PROPRIETIVE type (aka “incorporated-possessee”), “in which the possessor is the S argument of a proprietive predicate [...] derived from the noun designating the possessee” (Creissels 2019: 59; Chapter 1). The proprietive suffix *-rac/-tac* is added to the noun (the possessum) to derive an adjective meaning ‘N-owning’: e.g. *iohic* ‘bow’ + *-tac* → *iohitac* ‘bow-owning’. Morphosyntactically, (115–117) are instances of adjectival predication with the predicative inflection construction of Subtype IIIb. This proprietive type is also documented in Ayoreo.

- (115) *irosario-rac* *yu*
 [3]rosary-PROPR[M.SG.PRED] 1SG
 ‘I have a rosary.’ (Lit. ‘I am rosary-owning.’)
- (116) *inehu-rac* *icaite*, *izeque* *t-erâ_teutie*
 [3]object-PROPR[M.SG.PRED] RETR but 3-give.away
 ‘He had objects (lit. he was object-owning) but gave them away.’
- (117) *ca* *cucha -agu-tac* *yu*
 NEG bitterness-PROPR[M.SG.PRED] 1SG
 ‘I have no bitterness.’ (Lit. ‘I am not bitterness-owning.’)

8. Quantification

In Zamucoan, number words form a word class on their own, whose elements often have adjective-like behavior. Quantification is usually conveyed by a predicative inflection construction of Subtype IIIb (§2.1). Indeed, number words may inflect for gender, number and case, with some limitations and differences from adjectives. OZ number words up to ten are documented. I exclude ‘five’ and ‘ten’ from the present analysis because a periphrasis expresses them.⁷

The number ‘one’ agrees in gender with its referent and takes the case required by the morphosyntactic context. In (118–119), ‘one’ is in ARG, while the NP head is in singular PRED, as usual in the sequence noun + modifier (cf. §1.3).

⁷ ‘Five’ is *ch-uena* (3.REAL-finish) *y-imanai-tie* (1SG-hand-M.SG.ARG), lit. ‘(the counted entities) finish my hand’, while ‘ten’ is *ch-uena* (3.REAL-finish) *y-imanai-rao* (1SG-hand-M.PL.ARG), lit. ‘(the counted entities) finish my hands’.

- (118) *orâ* *yoco* *nomarâ-tie*
 [2SG.IRR]bring bread[M.SG.PRED] one-M.SG.ARG
 ‘Bring one (a piece of) bread.’
- (119) *a-iriquega* *y-iridde* *nomarâ-tae*
 1SG.REAL-walk.with 1SG-foot[F.SG.PRED] one-F.SG.ARG
 ‘I walk with one foot.’

‘One’ has stem allomorphy: it alternates the regular PRED *nomarâ* (M/F.SG.PRED) with *chomarâ* (M/F.SG.PRED). The latter can be considered a singular PRED for diachronic reasons (Ciucci 2016: 679–680), but synchronically is invariable, and, as a consequence, the morphosyntactic function of the whole NP is expressed by the preceding noun (120), as seen in N+modifier(s) phrases (§1.3). This contrasts with (118–119).

- (120) *izi* *d-aro-tie* *chomarâ* *ome* *yu*
 [3.REAL]give REFL-handful-M.SG.ARG one[M/F.SG.PRED] ADP 1SG
 ‘S/he gave me one handful.’

The number ‘one’ stems from the verb ‘be alone’ (Ciucci 2021a: 321–322), whose third person forms, *ch-omarâ* (3.REAL) and *n-omarâ* (3.IRR), are identical to the two PRED forms of ‘one’.⁸ Consequently, it can be hard to distinguish between verb and number word when the PRED forms *chomarâ* / *nomarâ* head a predicate. The translation suggests that (121) is an example of non-verbal predication, (122) of verbal predication.

- (121) *ay-ubaitiga* *amin-itie* *chomarâ*
 2PL-trip[M.SG.PRED] missing-M.SG.ARG one[M/F.SG.PRED]
 ‘You have one trip to do.’ (Lit. ‘Your missing trip is one.’)
- (122) *t-agu'=ga* *ch-omarâ*
 3-eat=CONN 3.REAL-be.alone
 ‘The bird eats alone.’ (Lit. ‘The bird eats [and] is alone.’)

In (123), also the syntactic context helps identify non-verbal predication. Indeed, if *nomarâ* were a verb, it would be the third person irrealis, while (123) requires the realis, so *nomarâ* is the number word.

- (123) *ore* *ayupie-tae* *nomarâ* *ome* *uyade*
 3PL [3]understanding-F.SG.ARG one[M/F.SG.PRED] ADP each.other
 ‘They agree with each other.’ (Lit. ‘Their understanding is one with each other.’)

An epicene (i.e., undistinguished for F and M) PRED that can also replace ARG is documented in all number words. In (124–125), ‘two’ and ‘three’ are the modifier and the head of the subject NP, respectively. The epicene PRED is normally used to count (126).

⁸ In both the verb and the number word, I have always reported the symbol ^ for vowel nasalization, which is not systematically indicated by Chomé.

(124) *daco-yie* *gar* *ca* *cuguezore*
 queen.bee-F.PL.ARG two[M/F.SG.PRED] NEG [3]be.compatible
ahe *nomarâ-tie*
 hive[M.SG.PRED] one-M.SG.ARG
 ‘Two queen bees are not compatible with one hive.’

(125) *ore* *gadioc* *toi*
 3PL three[M/F.SG.PRED] [3]die
 ‘Three of them died.’

(126) *gahagani* *ch-iozochêre* *gadiogu=ihî* *nomarâ-tie*
 four[M/F.SG.PRED] 3.REAL-exceed three[M/F.PRED]=ADP one-M.SG.ARG
 ‘Four exceeds three of one unit (lit. by one).’

Interestingly, the polyfunctional epicene PRED forms in (124–126) are morphologically (but not semantically) singular forms. Indeed, they are the base of the inflectional paradigm, as shown in (127), where the singular PRED contrasts with the plural (the paradigms are incomplete for lack of data). Besides, numbers starting from ‘two’ do not have the singular ARG since the just-discussed singular epicene PRED covers its function. Indeed, in (128) the singular PRED of ‘eight’ (and not a plural ARG) is the subject of the copula *si*. The occurrence of the polyfunctional epicene singular PRED with a clear subject (128) or object function (126) confirms that this form has not always predicative value in number words.

(127) a. ‘two’ *gar* (M/F.SG.PRED), *ga-yo* (M.PL.PRED), *gar-oddoe* (M.PL.ARG), *ga-nic* (M.SG.INDET), *ga-nigo* (M.PL.INDET), *ga-nigui* (F.PL.INDET)
 b. ‘nine’ *gahaganihi* (M/F.SG.PRED), *gahaganihi-o* (M.PL.PRED), *gahaganihi-onnoe* (M.PL.ARG), *gahaganihi-yie* (F.PL.ARG)

The morphological plural of PRED and ARG indicates the totality of the referents, as typical of a greater plural (Corbett 2000: 30). For instance, the plural PRED *gadioguihi-o* (eight-M.PL.PRED) means ‘(they) are all of the eight’. Similar considerations apply to the plural ARG in (128–129).

(128) *gadioguihi* *si*; *orâ* *gadioguihi-oddoe*
 eight[M/F.SG.PRED] [3]COP [2SG.IRR]bring eight-M.PL.ARG
 ‘There are eight (of them); bring all the eight.’

(129) *aroc* *cheque* *garihi-yie*
 [2SG.IRR]send woman[F.SG.PRED] seven-F.PL.ARG
 ‘Send the seven women.’ (I.e. all of them)

OZ number words show thus the emergence of a greater plural, typologically rare but also found in the Chamacoco pronominal system (Ciucci 2020).

The singular INDET of number words is found when existential predication is negated (130). The INDET plural has a distributive meaning, as shown in the adpositional phrase in (131). This also applies to the singular INDET of ‘one’ (132).

- (130) a. *ca ga-nic uz* b. *ca gadio-tic uz*
 NEG two-M.SG.INDET EXIST NEG three-M.SG.INDET EXIST
 ‘There are not even two.’ ‘There are not even three.’
- (131) *ome desi ga-nigo*
 to boy[M.SG.PRED] two-M.PL.INDET
 ‘to every two boys’
- (132) *a-zi ome desi nomarâ-ric*
 1SG.IRR-give to boy[M.SG.PRED] one-M.SG.INDET
 ‘Give it to each boy.’

While in (121), (123) and (128) number words behave as non-verbal predicates, it can often be hard to distinguish between verbal and non-verbal predication in quantification. Number words higher than one have a corresponding verb meaning ‘be [NUMBER WORD]’, and the verb’s third person (syncretic for realis and irrealis) is identical to the singular PRED of the number word. For instance, the third person of ‘be three’, *gadioc* (133), is identical to the singular PRED *gadioc* (M/F.SG.PRED) ‘three’.⁹ As a result, when *gadioc* heads a copula-less non-verbal predicate, there can be ambiguity between verbal and non-verbal predication, as in (134–135). A similar ambiguity was observed for ‘one’ (121–123).

(133) *acadioho* (1PL.REAL), *yicadioho* (1PL.IRR), *dacadiocho* (2PL.REAL), *gadioc* (3) ‘be three’¹⁰

- (134) *ore gadioc*
 3PL [3]be.three / three[M/F.SG.PRED]
 ‘They are three.’
- (135) *y-igueda-tie ahe-oddoe gadioc*
 1SG-house-M.SG.ARG [3]floor-M.PL.ARG [3]be.three / three[M/F.SG.PRED]
 ‘The floors of my house are three.’

Data on OZ quantifiers are incomplete. However, two of them, *unaha* ‘many’ and *cuchiya* ‘much, many, a lot of’, have an epicene singular PRED whose uses are similar to those of number words. In (136–137), the singular PRED does not agree in number with the subject, as instead required for adjectives. (138) has two possible interpretations: (i) ‘a lot of’ is the modifier of ‘fog’: ‘there is a lot of fog’. The use of a PRED to modify an NP in ARG is unusual but documented for number words (120). (ii) There are two coordinated non-verbal predicates: ‘there is fog, it is a lot’.

- (136) *a-piazup cuchuzoda-ddoe unahâ*
 2SG-action[M.SG.PRED] bad-M.PL.ARG many[M/F.SG.PRED]
 ‘Your sins (bad actions) are many.’
- (137) *putugutodda-yie cuchiya*
 tick-F.PL.ARG many[M/F.SG.PRED]
 ‘There are many ticks.’ (Lit. ‘The ticks are many.’)

⁹ The same homophony was noted for ‘good’ and ‘be good’ (94).

¹⁰ The paradigm in (133) is fragmentary; these are the only forms provided by Chomé.

- (138) *hez-iti=uz* *cuchiyi*
 fog-M.SG.ARG=EXIST a.lot.of[M/F.SG.PRED]
 ‘It is very foggy.’ (Lit. ‘There is a lot of fog’ or ‘there is fog, it is a lot.’)

Finally, OZ has a dedicated interrogative word for ‘how many’, which cross-linguistically is usually linked to the word class of number words (Dixon 2010: 414). In OZ, ‘how many’ is not inflected but, like number words and quantifiers, heads a copula-less predicate (139).

- (139) *cuchuzoda* *agoya-ddoe* *gachaarigue?*
 sin[M.SG.PRED] [2SG]hidden-M.PL.ARG how.many
 ‘How many are the sins hidden by you?’ (Cf. ex. 14)

9. Ostension

OZ has an ostensive predicator (Table 5). Its paradigm is similar to demonstratives in that it distinguishes proximal vs. distal and indexes the gender and number of the referent.

Table 5. OZ ostensive markers.

	MASCULINE		FEMININE	
	SINGULAR	PLURAL	SINGULAR	PLURAL
PROXIMAL	<i>deide</i>	<i>deiddoe</i>	<i>deida</i>	<i>deiyie</i>
DISTAL	<i>deite</i>	<i>deite</i>	<i>date</i>	<i>deite</i>

The origin of the ostensive marker is unclear. The common element to all forms seems to be the demonstrative pronoun *de* ‘this’ (M.SG), a variant of *udde* (see ex. 36, 105) (cf. also §3), which became the common base of the ostensive paradigm. This element was possibly combined with locative adverbs or other demonstrative pronouns: for instance, *deide* (OST.PROX.M.SG) may stem from *de* ‘this’ + *ide* ‘here’, *deite* (OST.DIST.M.SG/PL) from *de* ‘this’ + *ite* ‘there’ (similar to French *ceci*, *celà*), and *date* (OST.DIST.F.SG) from *de* ‘this’ + *ate* ‘that’ (F.SG) (with simplification of the sequence */ea/ > /a/). However, the morphological structure of the ostensive predicator is not fully transparent, and its inflection differs from that of demonstratives. Indeed, the latter have no syncretic forms, while the ostensive distal *deite* is shared by the masculine (both singular and plural) and the feminine plural.

There is a limited amount of data illustrating the use of OZ ostensive markers. The ostensive predicator can precede (140–141) or follow (142–143) the NP it combines with. Also, the noun phrase can be inflected in either PRED (141) or ARG (142). The ordering of the elements and the case marking are possibly related to unknown pragmatic factors since the context of the examples is missing.

- (140) *deide* *yu*
 OST.PROX.M.SG 1SG
 ‘Here I am.’
- (141) *deide* *y-ap* *penonari*
 OST.PROX.M.SG 1SG-son[M.SG.PRED] beloved[M.SG.PRED]
 ‘Here is my beloved son.’

- (148) Ayoreo (Morarie 2011: 348)
y-etaque ore úringa-ne
 1SG-dislike 3PL [3]state.of.being-M.PL.ARG
chi_chi_chi-o.
 IDEO.sound.of.grumbling-M.PL.PRED
 ‘I do not like their tendency to murmur.’ (Lit. ‘I do not like their states of being (as) *chi chi chi* [sound of grumbling].’)

11. Negation

There are no differences between negation in verbal and non-verbal predication.¹¹ The standard negator *ca* alternates with *aca*, which is specialized for irrealis contexts; this is the only type of realis vs. irrealis contrast present in non-verbal predication (149).

- (149) *doque aca a-ru ique?*
 perhaps NEG.IRR 2SG-word[M.SG.PRED] RETR
 ‘Perhaps wasn’t it your word?’

Negation always precedes the non-verbal predicate: it can be adjacent to it (150) or precede the subject (151). In (152), the negation’s position contributes to identifying the personal pronoun as the predicate.

- (150) *pi-tie assi ca pedic ihi*
 splinter-M.SG.ARG still NEG removed[M.SG.PRED] ADP
y-imai-tae
 1SG-hand-F.SG.ARG
 ‘The splinter is not yet removed from my hand.’

- (151) *aca a-chotagueriga-tie si ome ab-itie*
 NEG.IRR 2SG-sadness-M.SG.ARG [3]COP for [2SG]son-M.SG.ARG
 ‘Do not be sad for your son.’ (Lit. ‘Do not let your sadness be for your son.’)

- (152) *dara-tie ca uyu*
 who.is.talking-M.SG.ARG NEG 1SG
 ‘I am not the one talking.’ (Lit. ‘The one talking is not me.’)

Finally, Ayoreo and Chamacoco have a negative existential predicator for the third person, *ijnoc* and *nihyōk*, respectively. Ayoreo *ijnoc* coincides with the third person of the verb ‘be exhausted, faint’. While in OZ there is no dedicated negative existential predicator, Chomé’s translation in (153) shows that the verb ‘be finished, run out’ (a cognate of Ayoreo *ijnoc*, cf. Ciucci 2021: 319) was undergoing grammaticalization into a negative existential predicator.

- (153) *yoi-tie enoc*
 water-M.SG.ARG [3]be.finished
 ‘There is no more water.’ (Lit. ‘The water is finished.’)

¹¹ Chomé (1958: 152) mentions a specific negator *-oâ* for some deverbal nouns and adjectives, but in the few examples available it seems rather a derivational suffix with negative meaning.

12. TAM features

Zamucoan languages are radically tenseless (Bertinetto 2014b). In verbal and non-verbal predication, temporal reference is not expressed if it can be inferred from the context. Otherwise, Zamucoan employs temporal adverbs, which include prospective and retrospective particles. The examples of this chapter show instances of the OZ particles *ique* (recent past, ex. 27), *icaite* (remote past, ex. 116), *=ri* (near future, ex. 34) and *nei* (distant future, ex. 90). The position of the temporal particles is not rigid, which, along with their non-obligatoriness, is evidence that they did not grammaticalize into tense markers: they can follow the copula (112) and the head of the non-verbal predicate (90) or can occur clause-finally (97).

While verbs distinguish realis vs. irrealis, mood is not expressed in non-verbal predication, apart from the realis/irrealis negation (see §11).

OZ has nominal aspect markers, as described by Bertinetto (2014b: 382, 2020) for Ayoreo, which is a typologically rare feature. Nouns and adjectives can receive a habitual marker that precedes the portmanteau suffix encoding gender, number and case (cf. ex. 95, above). Consequently, non-verbal predicates headed by nouns or adjectives can flag habitual aspect, as shown by (154).

- (154) *corâ-tie*, *gaid-ebec*
 vegetable.garden-M.SG.ARG [3]destination-HAB[M.SG.PRED]
 ‘The vegetable garden is their customary destination.’

Although Chomé (1958) did not use the label “nominal tense”, he knew this phenomenon from Old Guarani and tried to apply the notion to some features that cannot be considered as such. Nevertheless, there is some evidence (not addressed by Chomé) that OZ did have nominal tense, although there are no clear examples of its use in non-verbal predication (for discussion, see Ciucci 2016: 682–690, 2018: 442–443).

13. Non-verbal predication in complex constructions

The status of the clause as independent or subordinate does not affect non-verbal predication. The constructions discussed in this chapter are also attested in dependent clauses. The examples below feature the predicative inflection construction of Subtype IIIb in a completive (155) and a relative clause (156). In the latter, the adjective ‘good’ agrees in the feminine with the relativizer. Furthermore, (157) features locational predication in a relative clause and (158) existential predication in a temporal clause.

- (155) *arié* *manigué* *netaug=at*
 [2SG.IRR]feel COMP soft[M.SG.PRED]=COMP
 ‘Do feel whether it is soft.’
- (156) *amata* *guate_erigû* *uom-e*
 [2SG.IRR]choose REL.F.SG good-F.SG.PRED
 ‘Choose (the one) who is good.’

- (157) *tigue* *ch-ihoca-co* *cucha-ddoe,* *uddao_erigû*
 afterward 1IRR-search.through-PL thing-M.PL.ARG REL.M.SG
ore *si* *ahâ* *petacas-tae*
 3PL [3]COP ADP chest-F.SG.ARG
 ‘Afterward, we will search through the objects that are in the chest.’

- (158) *em-iti=uz* *ati,* *a-bot* *guedda-doe*
 wind-M.SG.ARG=EXIST when 2SG.IRR-winnow corn-M.PL.ARG
 ‘When there is wind, winnow the corn.’

The subject of a non-verbal predicate can be a clause, as in (159–161). PRED in the main clause implies that the following one is a subjective clause. Subjective clauses have no specific marking and are usually introduced by a polyfunctional linking morpheme (*ega*) (159–160), which is not obligatory (161). In (162), by contrast, ARG on ‘disgrace’ indicates that it is the subject, while the following verbal clause (‘the river flooded my farm’) is the upper-level predicate, with no specific marking to indicate its function except for the linking element (*ega*).

- (159) *uzoda=puz=ega* *nai-tie* *iganaore*
 bad=AUGM[M.SG.PRED]=CONN man-M.SG.ARG [3]play.dishonestly
cheque-tae
 woman-F.SG.ARG
 ‘It is very bad that the man plays dishonestly with a woman.’

- (160) *puyaqu=ega* *ab-oddoe* *ch-anai*
 bad[M.SG.PRED]=CONN [3]child-M.PL.ARG 3.REAL-scold
d-ai-oddoe
 REFL-father-M.PL.ARG
 ‘It is bad that the children scold their fathers.’

- (161) *uñu-tie* *ibioqueriga,* *aho-tie*
 cooked.thing-M.SG.ARG [3]sign[M.SG.PRED] [3]under-M.SG.ARG
ch-iyuque=re
 3.REAL-peel=REFL
 ‘It is the sign of the cooked food that the skin comes out.’ (Lit. ‘The part under peels itself.’)

- (162) *ch-aud-itie='ga* *yonura-tie* *ch-ipurigaz*
 1SG-disgrace-M.SG.ARG=CONN river.flood-M.SG.ARG 3.REAL-flood
z-uti-tie *ahâ*
 1SG-farm-M.SG.ARG ADP
 ‘My disgrace is that the river flooded my farm.’

In (163), the temporal clause marked by *ati* ‘when’ (cf. 158) functions as the predicate.

- (163) *cuchuzo* *date=puz-itie,* *cheque-yie*
 sin[M.SG.PRED] big=AUGM-M.SG.ARG woman-F.PL.ARG
ch-ibero *d-ab-oddoe* *hi=re* *ati*
 3.REAL-break REFL-child-M.PL.ARG ADP=REFL when
 ‘A most grave sin (is) when women have an abortion (lit. break the children in them).’

In conclusion, the predicative inflection construction of Subtype IIIb is also used when the subject or predicate is a clause because its syntactic function can be recovered from the ARG marking on the subject. A parallel can be seen here with predication involving pronouns (§2.3–2.4): the argument without case marking follows the case-marked one.

14. Conclusions

This chapter analyzed non-verbal predication in OZ. This language preserves archaic morphosyntactic features that have partly or completely changed in today’s Zamucoan languages: an example is the threefold grammatical system of nouns and adjectives, which is a peculiarity of Zamucoan and merges morphosyntactic function with determinacy (§1). This system exhibits a specific form for identity and inclusion predication that is morphologically lighter than the non-predicative forms, thus showing a predicative inflection construction of Subtype IIIb (§2.1), as in Tupi-Guarani (Dietrich, this volume) and some Bantu languages, such as Cuwabo (Guérois, this volume)

These typologically rare constructions are also used for quantification since number words and quantifiers have (with some gaps) the same inflections as nouns and adjectives (§8). In addition, OZ number words show the emergence of a greater plural, a cross-linguistically rare number value.

While PRED usually agrees in number (singular or plural) with its subject, in some cases only the singular is used (§2.3–2.6, §8). Since the singular PRED usually has zero suffix, this situation might preserve an early stage in which the root was directly employed with predicative value before the contrast singular vs. plural of PRED developed.

The language has most likely developed a SAP-dedicated copula used with the predicative inflection construction of Subtype IIIb (§2.6). Such a combination constitutes the fourth, very rare, type of non-verbal predicative construction addressed in Chapter 1.

OZ also has copula constructions for adverbial (§3–5), existential (§6) and possessive predication (§7) and, in a few cases, also juxtaposition constructions (§2.5, §5). In a few OZ examples, the demonstrative *u* functions as a copula for identity and inclusion predication: these data reflect the first stages of development of the uninflected Ayoreo copula *u*, which is now in competition with the predicative inflection construction of Subtype IIIb (§2.7).

Ostension is expressed by a dedicated predicator stemming from demonstrative pronouns (§9).

Finally, Zamucoan languages are tenseless, but OZ (and Ayoreo) nouns and adjectives may flag habitual aspect, also occurring in non-verbal predication (§12).

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Abbreviations

1, 2, 3 = first, second, third person
ADP = adposition
ARG = argument form
AUGM = augmentative
COMP = complementizer
CONN = connective
COP = copula
DIST = distal
EXIST = existential predicator
F = feminine
GF = generic form
HAB = habitual
IDEO = ideophone
INDET = indeterminate (argument) form
INT = interrogative
IRR = irrealis
M = masculine
NEG = negative
OST = ostensive
OZ = Old Zamuco
PCLF = possessive classifier
PL = plural
PRED = predicative form
PROPR = proprietive
PROSP = prospective
PROX = proximal
REAL = realis
REFL = reflexive
REL = relative
RETR = retrospective
SAP = speech-act participant
SG = singular

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