

Introduction to definiteness in Ayoreo (Zamucoan)

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Abstract

Ayoreo, a Zamucoan language of the Gran Chaco, lacks a formal word class for articles, presenting a significant challenge for understanding how universal functional domains of reference are realized in languages with limited descriptions. This research addresses a notable lacuna in the literature regarding a systematic analysis of the grammatical encoding of definiteness in Ayoreo. The primary objective is to characterize the diverse morphosyntactic and discursive mechanisms –including nominal suffixes, possessive prefixes, and demonstratives – that manage identifiability, familiarity, and uniqueness. Employing a mixed onomasiological and semasiological approach, the study analyzes a first-hand corpus collected between 2011 and 2022, supplemented by secondary sources and controlled elicitation. Previous studies reveal a specialized triple nominal marking system: the "full form" serves as the primary vehicle for definite reference, while the "indeterminate form" marks referential but non-specific entities. Additionally, a complex three-degree demonstrative system and possessive prefixes provide essential situational, anaphoric, and associative anchoring. Semantic mapping confirms that proper names and personal pronouns inherently encode uniqueness and familiarity. The study shows that although Ayoreo lacks independent articles, its robust suffixal and pronominal strategies satisfy cross-linguistic criteria for article-like functions. These results contribute essential data to the description of Chaco languages and facilitate broader typological comparisons of referential systems, suggesting that definiteness can be effectively realized through fusional morphology rather than independent word classes.

Keywords: Ayoreo; Zamucoan; Definiteness; Discursive Anchorage; Articles

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INTRODUCTION

The study of definiteness represents a crucial nexus in linguistic theory, serving as both a universal functional category and a site of significant cross-linguistic variation. From a functional perspective, definiteness is a fundamental cognitive-discursive tool used to manage the identifiability and uniqueness of referents within a shared mental space between interlocutors. By signalling that a referent is "accessible" or "familiar," it facilitates efficient information packaging and referential tracking in discourse. However, the formal realization of this universal concept varies dramatically across languages, challenging simplistic mapping between meaning and structure.

In this order, the Ayoreo language is particularly interesting since, like many neighboring languages, it lacks a word class such as articles, traditionally related to the determination of nominals. In fact, the occurrence of both definite and indefinite articles in South American languages is rare (Krasnoukhova, 2012). However, the Ayoreo language depicts a wide variety of devices to convey definiteness and its associated concepts.

While existing works provide comprehensive descriptions of referential expressions in Ayoreo, there remains a notable lacuna regarding a dedicated systematic analysis of how definiteness is grammatically encoded within the language. Current research offers a robust foundation for understanding the broader nominal domain; however, a targeted investigation into the specific morphosyntactic and semantic mechanisms that signal definiteness is still required to fully characterize the language's referential system.

Based on a corpus study enriched by elicitation with controlled contexts, this work aims to characterize how the Ayoreo language expresses the functional domain of definiteness and its associated concepts and which elements play a key role in determining the noun phrase. Through the systematization of the data collected in the field and the analysis of secondary sources, the aim is to advance the knowledge of this aspect of the language, contribute to the description of the Chaco languages and provide useful information for cross-linguistic comparison.

The paper is structured in the following way: Section 2 briefly characterizes the Ayoreo people. Section 3 explores the language's morphological structure and referential expressions. Section 4 presents the main theoretical aspects relevant to this research, including the concepts of definiteness and identifiability. Section 5 develops the methodological aspects considered. Section 6 addresses the core analysis and results through a mixed approach: it first examines the onomasiological perspective, focusing on familiarity, identifiability, uniqueness, and inclusiveness; then, it presents the semasiological counterpart by characterizing specific constructions; and finally, it addresses the issue of indefiniteness in a broad sense. Finally, Section 7 presents the main conclusions of the work.

The Ayoreo People

Ayoreo (Zamucoan) is the main communication language in communities of Paraguay and Bolivia, although signs of linguistics retraction begin to be attested. Census data on population and housing carried out in Paraguay and Bolivia calculate an amount of 1890 ayoreo in Bolivia (Instituto Nacional de Estadística [INE], 2024) and 2520 in Paraguay (Instituto Nacional de Estadística [INE], 2022). Contact between Ayoreo and non-indigenous communities is rather recent. Campo Loro, the biggest Ayoreo community of Paraguay, was founded in 1979 (Ingomejei Dosapei – former Campo Loro leader – personal communication, September 2022). For this reason, there are elders that lived half of their lives under the ancestral ways of the forest, unaware of the languages and cultural aspects of the non-indigenous society that surrounded them. There are still a few un-contacted Ayoreo families in the northernmost part of the country.

Virtually all of the Ayoreo people are fluent speakers of their language and use it daily (Bertinetto, 2009, p. 3). Most adults, except the elderly, speak some Spanish. Although the language is in use in most age groups, it is a language in retraction.

According to UNESCO's Atlas of Endangered Languages, it is a definitively endangered language (Moseley & Nicolas, 2010). Bilingual education that prioritizes Spanish over Ayoreo in the upper years of primary school, together with the growing presence of media and internet telephony, favors the advancement of the language of the surrounding society compared to the native one.

Historically, the Ayoreos maintained distance from the non-indigenous population. While there is news of the Zamuco peoples since viceregal times, modern sustained contacts date from the second half of the 20th century (Bartolomé, 2000). In fact, there is still a reduced Ayoreo population in a situation of voluntary isolation in northern Paraguay (Lovera et al., 2016).

The Ayoreo language

Ayoreo nominal morphology

Ayoreo, like the rest of the Zamuco languages, is fusional (Ciucci & Bertinetto, 2019, p. 147). Nouns and adjectives have a single suffix that simultaneously expresses gender, number, and form. While the first two systems are not new, the third is a peculiarity of the language. One of the most salient aspects of Ayoreo nominal morphology, and undoubtedly central to the study of definiteness, is the existence of three distinct nominal paradigms: the base form, the full form, and the indeterminate form (Bertinetto et al., 2019; Ciucci, 2019, 2021b, 2021a; Ciucci & Bertinetto, 2019).

Base form:

- (1) Imeserane choquijna- Ø
 Imesera's dad old-BF
 'Imesera's dad is old.'

Full form:

- (2) *tamoco-de po*
 dog-M.PL 3.bark
 'the dogs bark'

Indeterminate form:

- (3) *y-ise yoca-ique*
 1.SG-find turtle-IF.M.SG
 'I found a turtle (anyone)'

The base form is used non-referentially and, in general, predicatively. In contrast, the full form is referential and is used in argumentative positions. It is, therefore, the most defined form. A midpoint between the two is reflected in the indeterminate form which, although it is referential and is used in argumentative positions, expresses non-specific reference (Ciucci & Bertinetto, 2019, p. 147).

Since this triple nominal marking is present in the Zamuco languages in general¹, Ciucci and Bertinetto (2019, p. 148) present a table that summarizes the nominal suffixation in the Zamuco languages. We reproduce the table below (table 1).

Table 1. Nominal suffixes in Zamuco languages (Ciucci & Bertinetto, 2019, p. 148)

		Old Zamuco		Ayoreo		Chamacoco	
		SG	PL	SG	PL	SG	PL
Masculine Form	Base	-Ø	-(y)o, -ño	-Ø	-(j)o, -ño	-Ø, -k, -(j)ak	-(j/w)o, -(j)e, -tso,
Masculine Full Form		-(i)tie	-oddoe/ -onnoe	-i	-ode, -one	-(i)t, -(i)tc	-teo, -lo, -no
Masculine Indeterminate		-nic, -ric, - tic	-nigo, -rigo, -tigo	-nik, -rik, -tik	-niño, -rigo, -riño, -tigo	-tik, -ĩrk	-tijo, -ĩr
Feminine Base Form		-Ø	-(y)i, -ñi	-Ø, (-e)	-i	-Ø, -aʔ, -eʔ, -oʔ, -iʔ	-(j/w)e
Feminine Full Form		-(i)tae	-(i)yie, -(i)ñie	-Ø, (-e), -(i)a	-(i)die, -(i)nie	-(i)ta, -(i)tca	
Feminine Indeterminate		-nac, -rac, - tac	-rigui	-nak, -rak, -tak	-niñi, -rigi, -riñi, -tigi	-tã(k), -rã(k)	-ĩr

Also interesting is Becker's (Becker, 2021, p. 269) proposal, which reanalyzes ayoreo's full form and indefinite form as specific inclusive articles and as non-specific articles. This analysis is consistent with her his proposal for analyzing articles as a cross-linguistic category. Table 2 shows how we could treat the suffixal paradigm as articles.

Table 2. Articles in the Ayoreo language (Becker, 2021, p. 269)

	INCLUSIVE - SPECIFIC	NON-SPECIFIC
MASC. SG.	-i	-tique/-rique/-nique
MASC. PL.	-ode	-tigo/-rigo/-niño
FEM. SG.	a/-ia/-Ø	-raque/-taque/-naque
FEM. PL.	-die/-i	-rigi/-tigi/-niñi

Like many Chaco languages, Ayoreo displays a distinction in its noun marking between alienable and inalienable (Fabre, 2007). In the Ayoreo case, nouns that must express their possessor receive a prefix, while those that are not obliged to express

¹ For being by far the most wide-spread of the three forms, when the examples show it, it will appear glossed just as gender and number markers. All the other forms will be specifically marked.

possession receive no particular marking. The noun prefixes of possession are presented in Table 3.

Table 3. Possessive prefixes of Ayoreo (reformulated from (Durante, 2018)).

NUMBER PERSON	SINGULAR	PLURAL
1	y-	yoc-
2	b-	uac-
3	d- / Ø-	Ø-

Finally, there is also a special marking to express generic possession that (Ciucci, 2016) and (Ciucci & Bertinetto, 2019) describe as the generic form. This form takes the shape of a nominal prefix. Although it is a more complex paradigm with phonological variations in all the languages of the family (see (Ciucci & Bertinetto, 2019, p. 150) in the case of Ayoreo, the most used prefix is p- (Ciucci, 2016, p. 438).

- (4) *tamoco-i ch-acaja enga tagu p-iboti*
 dog-M.SG 3-enter and 3.bite GF-food
 'The dog entered and ate food'

Therefore, the Ayoreo nominal morphology shows devices that allow us to distinguish between forms that expresses specific references (full form), non-specific referents (indeterminate form) and generic referents (generic form).

Ayoreo referential expressions

Among the referential expressions of Ayoreo are proper names, personal pronouns, demonstrative pronouns and noun phrases. One of the central characteristics for the analysis proposed here is that Ayoreo is a language without articles as an independent word class. The development of an article has been described for Chamacoco (Ciucci, 2020), so it may be assumed that a similar process could occur in the diachrony of the Ayoreo language.

Throughout the following sections, examples extracted from first- and second-hand texts and elicitation will be presented to analyze how, based on these referential expressions, the language encodes definite and indefinite meanings.

Pronominal and adnominal expressions

Ayoreo shows a paradigm of personal pronouns (Bertinetto, 2009, p. 19) that mirrors personal prefixes attached to verbs and possessive prefixes attached to nouns.

Table 4. Personal pronouns

PERSON	SINGULAR	PLURAL
1	uyu/yu	uyoc/yoc
2	uwa/ua	uwac/uac
3		Ore

Ayoreo also presents a paradigm (see table 5) of demonstrative pronouns that distinguishes three degrees of distance and flexes in gender and number².

Table 5. Demonstrative pronouns

DISTANCE	M.SG	F.SG	M.PL	F.PL
PROXIMAL	<i>ude</i>	<i>udaque</i>	<i>udojo</i>	<i>udaji</i>
MEDIAL	<i>uti/uta</i>	<i>uati/uata</i>		
DISTAL	<i>ute</i>	<i>uate</i>	<i>udoe</i>	<i>udie</i>

These pronouns can present reduced versions in which the first vowel falls, mainly in the case of the masculine singular demonstrative pronoun that is usually found as *de*.

The language also shows a paradigm of indefinite pronouns described by Morarie, (2006, p. 85). See Table 6 below.

Table 6. indefinite pronouns

	MASCULINE	FEMININE
SINGULAR	<i>uñeque</i>	<i>uñaraque</i>
PLURAL	<i>uñengo</i>	<i>uñaringui</i>

As it will be shown later, these indefinite pronouns were not among the most salient strategies to convey indefiniteness in the data I observed. This could be due to a local variant.

Theoretical framework

Definiteness and determination

Definiteness constitutes a universal functional domain encompassing a range of semantic and pragmatic notions (König, 2018). These notions can be understood as comparative concepts (Haspelmath, 2010; (Croft, 2016) with familiarity and identifiability of the referent central to its semantic-pragmatic characterization. When a referent is definite, it is assumed to exist within the interlocutors' shared discourse universe. Additional aspects of this domain include uniqueness, salience, existence, and inclusiveness (König, 2018).

Determination, as a grammatical function, modifies the noun phrase by specifying its referential mode, thereby converting a nominal into a full noun phrase (Helmbrecht & Vidal, 2019). Determiners anchor the referent within the discourse by clarifying its relation to the nominal set and marking its information status (Lehmann n.d.). This category encompasses several subtypes, including:

- a) Definite articles (Bechert, 1993; Bisle-Müller, 1991; Christophersen, 1939; Ebert, 1970; Gamillscheg, 1937; Hartmann, 1982; Heinrichs, 1955; Himmelmann, 2001),
- b) Indefinite articles (Givón, 1981; Hawkins, 1991; Wright & Givón, 1987),
- c) Demonstrative pronouns (Diessel, 1999; Fillmore, 1982; Himmelmann, 1996),
- d) Adnominal possessives (Aikhenvald et al., 2013; Gamillscheg, 1937; Haspelmath, 1999; Plank, 1992), and

² The information presented below comes from available literature (Morarie, 2006, p. 105), (Ciucci, 2016, p. 71), among others, and my field notes. One difference is that my consultants identify three degrees of distance for the singular forms.

e) Certain quantifiers (Lyons, 1999).

Articles

While a narrow view might consider articles as an exclusively independent word class, it is interesting to consider them also as a category of cross-linguistic comparison in the terms of (Haspelmath, 2010). This is the line of argument followed by (Becker, 2021), which is of particular interest for the analysis of the expression of determinacy and definiteness in a language that does not have articles as one of its word classes. The author postulates three general criteria the markers must meet to be considered articles from a cross-linguistic perspective (Becker, 2021, p. 37):

- Articles must be referential markers.
- They must occur with lexical referential expressions (generally nouns).
- They must occur systematically (although there may be exceptions) in contexts that match their referential functions.

Ayoreo is included in the sample of languages analyzed by the author. Their contributions will be considered in this work, and we will seek to provide new data to discuss the presence of articles as a cross-linguistic category in this language.

Reference and identifiability

Reference is one of the central and omnipresent phenomena in languages and “constitutes one of the most salient and persistent phenomena in discourse” (Kibrik, 2011, p. 10). Referentiality concerns the fact of mentioning an entity (a referent) in the discourse through linguistic expressions (referential expressions) and, at the same time, refers to the relationship between that expression and its referent (Kibrik, 2011; Lehmann, 2015b).

The identifiability of a referent, how a speaker signals that the addressee can uniquely determine its identity, depends on various contextual anchors. (König, 2018, p. 169) provides a systematic classification of these identifiability contexts, distinguishing five primary mechanisms through which a referent can be pragmatically anchored in discourse:

Table 7. Identifiability of a referent

Situational identifiability	The referent is identifiable through the immediate speech situation or shared universe of discourse. This includes cases where the referent is perceptually accessible (e.g., visible in the physical environment) or part of general background knowledge (e.g., ‘Pass me the book’ when only one book is present).
Cataphoric identifiability	The referent is rendered identifiable via a sufficiently restrictive description within the same utterance, often in a postnominal modifier (e.g., ‘The man wearing a blue hat is my brother’).
Anaphoric identifiability	The referent is recoverable from prior discourse, where its identity has been previously established (e.g., ‘A man entered. The man sat down.’).
Recognitional identifiability	The referent is identifiable through appeal to personal memory or partial description, often relying on shared episodic knowledge (e.g., ‘Remember the restaurant we went to last year?’).

Associative
identifiability

The referent is linked to an already identifiable entity through a conventional or inferential association (e.g., 'I bought a car. The steering wheel was damaged.').

Onomasiological and semasiological approach

This paper is intended to portray how the Ayoreo language expresses the functional domain of definiteness in a way that is both explanatory of the particularities of the language and useful for cross-linguistic comparison. For this reason, a mixed approach will be taken: From function to specific constructions, and then showing how these forms express the various aspects of the functional domain that we aim to describe. The combination of onomasiological and semasiological perspectives strengthens the cross-linguistic comparability of the results obtained and allows pointing to an adequate answer to the central question that guides this research: How does the Ayoreo language express the functional domain of definiteness?

The semasiological perspective proceeds from linguistic forms (e.g., words, morphemes, or constructions) to their possible meanings or functions. It investigates how a given expression can be polysemous or vary in interpretation across contexts. This approach is particularly prominent in lexical semantics, grammaticalization studies, and corpus linguistics, where the focus lies in mapping the multifunctionality of linguistic signs (Traugott & Dasher, 2002).

Conversely, the onomasiological perspective starts with a conceptual or functional domain and examines the different linguistic means by which it can be expressed. For example, an onomasiological study of definiteness would compare the use of articles, demonstratives, word order, and other strategies across languages to mark referential specificity (Lehmann, 2020). This approach is central to typological research, cognitive linguistics, and studies of lexical fields (e.g., synonymy or cross-linguistic comparison of semantic domains).

(Lehmann, 2015a, 2020) emphasizes that the choice between these approaches depends on the research question: Semasiology is form-driven and often descriptive, analyzing how a single linguistic item accommodates multiple meanings. Onomasiology is concept-driven and often explanatory, exploring why certain forms are selected for certain functions, including sociolinguistic, cognitive, or diachronic motivations (Koch, 2012).

METHOD

The source of the examples presented here come, in all cases where not otherwise indicated, from first-hand information collected by the author in successive fieldworks between 2011 and 2022 in the Ayoreo community of Campo Loro. This community is located in the Department of Boquerón, Paraguay, and is the largest Ayoreo community in said country.

As a result of this work, a corpus of free texts of different discursive genres was created that was complemented with lists of words and sentences resulting from linguistic elicitation with speakers of the Ayoreo language. At the same time, secondary sources were also used to add to the analysis some textual genres currently

out of circulation in current Ayoreo communities, such as mythical narratives. For instance, the mythical narrative “Ore jocaningai ome Darai” (Their argument with Darai) collected and translated in (Zanardini, 1994) was used to contrast these ancient tales with the more vital narratives still in circulation in the Ayoreo communities nowadays and show continuities and changes.

The different genres used in the analysis include:

- Narratives
- Conversations
- Instructionals

The first-hand corpus was translated and analyzed collaboratively with native speakers within their ethnographic context. Furthermore, secondary sources were reviewed alongside native consultants to ensure their representativeness of the varieties spoken by the communities where the fieldwork was conducted.

The corpus texts were analyzed by focusing on referent tracking and anchoring, as well as the semantic interpretation of utterances. In this regard, elicitation based on constructed contexts was employed to corroborate and contrast the data observed in more spontaneous discourse settings.

RESULTS AND DISCUSSION

Onomasiological approach:

Familiarity and identifiability

The familiarity hypothesis was formulated by (Christophersen, 1939) and stipulates that the denoted entity constitutes shared knowledge to both speaker and listener. A familiar referent, then, will tend to be more defined than another that is not known by the participants in the communicative situation (Lyons, 1999, p. 5) (Lyons 1999: 5).

	de		batig		ude		g	tani
5)		que	ai			uida-i	ngane	
	DEM.P		stop		DEM.P	v	begi	
	ROX.M.SG	here	ping,place		ROX.M.SG	illage-	nning	
						M.SG		

‘In which place it stopped? At the beginning of the village?’

In example (5) above, the noun phrase ude guidai taningane (‘the beginning of the village’) is a geographical location that is clearly identifiable and familiar to the participants in the conversation. The village is entered through a gate and, by using this expression, it is indicated that the reference was in the vicinity of that location. As can be seen and will be developed in depth later, the noun phrase presents a demonstrative adnominal pronoun before the nominal phrase that reinforces the familiar and identifiable character of the referent. Also, the noun is in the full form to indicate definiteness.

a genitive phrase *yoqui iji* Ana Maria. This redundant structure helps to anchor the reference and add stylistic value. Example (9), for its part, exemplifies the possibility of being modified by Ayoreo personal pronouns. In this case, by a numeral, forming a genitive phrase meaning ‘the two of them’.

Possessives

The presence of possessive prefixes in Ayoreo is a language resource to indicate the definiteness of the referent.

- (10) b-eyoi ga y-iro-jo yoc-ojoigu-i
2.SG-bring COORD 1-use-PL 1.PL.POSS-bow.and.arrow-M.PL
'Bring our weapons and we will use (them).'
(Zanardini, 1994, p. 8)

In example (10), the use of the referential expression possessed indicates that it is a definite and, more specifically, identifiable and inclusive referent. The use of the prefixed form is a key tool to characterize the definiteness of the referent.

The very semantics of possession implies the relational character of the reference. In this sense, possessive prefixes are the main strategy to express defined and inclusive referents.

Demonstratives: contexts of identifiability

Considering our sample, the use of demonstrative adnominal pronouns is restricted to unique and identifiable referents. Also, the Ayoreo language uses demonstrative pronouns as a productive means of anchoring the referent in different contexts (in terms of König 2018).

Anchoring in the universe of discourse or discursive situation:

- (11) mu ch-icha ude
 but 3-stay DEM.PROX.M.SG
 'But it stayed (there)'

In example (11), the narrator refers to the place where the tiger he is hunting stopped. In this example, the narrator makes a point linking a space in the context of enunciation (discursive situation) with the place in the story (universe of discourse).

Cataphoric and anaphoric anchoring:

- (12) yoq-uisai ude naniq uje ñ-imoonge
1.PL.POSS- DEM.PROX.M.SG before SUB 1.SG-peel
tradition
'This was our custom, that I peeled (the fruit).'

- (13) yoq-uisai ude
 1.PL.POSS-tradition DEM.PROX.M.SG
 ‘This (was) our custom.’
 LAST CLAUSE

The examples above show the first and last clauses of an instructional text. The referent of the demonstrative pronoun *ude* is in the process of preparing the fruit that is developed in the successive clauses of the discourse. The demonstrative is here serving as a non-verbal predicate that is modified by a subordinate clause marked by the presence of the realis subordinator *uje*.

In the aforementioned text, the final clause takes up and synthesizes the content of the discourse through the resumptive phrase composed of a noun and a demonstrative pronoun to emphasize the anaphoric function. This respects the preferred order of the nominal phrase in the language: “demonstrative adjectives normally follow the noun they refer to” (Bertinetto, 2009, p. 35).

Recognitional anchoring:

The anchoring of referents in the shared memory between speaker and listener is possible in Ayoreo using demonstrative pronouns. To verify this type of anchoring, elicitation contexts were constructed.

- (14) *y-ipota* *uti* *p-id-i*
 1.SG-want DEM.MED.M.SG GF-stick-M.SG
 ‘I need that stick’

CONTEXT: yesterday I was at your house and I saw that you had a stick. Today I want to tell a story and for that I would like to have that stick that I remember you have to execute my narrative.

It is interesting that the speaker opts, in this case, for medial demonstratives. The act of remembrance linked to past events seems to fit with the choice of pronouns of greater relative distance. Something similar occurs in the following example.

- (15) *y-ipota* *uta* *Agaria* *Ø-aaque-i*
 1.SG-want DEM.DIST.M.SG *Agaria* 3.SG.POSS-food -M.SG
 I want that food of Agaria.

CONTEXT: We are talking and I am hungry. I remember a delicious meal we shared that was cooked by Agaria and I wish we could eat it again now.

Example (15) shows the same strategy in the context of a possessive phrase.

Associative anchoring:

- (16) *cata-i* *cunguja-ji* *yu* *enga* *y-uje* *de*
jaguar- *run-to* 1.SG COORD 1.SG-hit DEM.PROX.M.SG
M.SG
 ‘The jaguar runs towards me and I hit it (there).’
 (Durante, 2018, p. 282)

In this example the narrator points to a part of his body at the moment of utterance while using the demonstrative pronoun. The referent is linked by an inference that relates the universe of discourse (the jaguar) with the discursive situation (the body of the narrator).

Demonstrative and noun phrase constructions

The Ayoreo language makes productive use of demonstratives as modifiers of the noun phrase. The demonstrative strategy is restricted to familiar, identifiable and unique references.

(17)	enga	jie	ch-uje	jiique	Ø-mai-nie
	COORD	DISC	3-hit	Suddenly	3.SG.POSS-finger-F.PL
	je	udie	ga	Ø-paata-ne	udoe
	DISC	DEM.PROX.F.PL	COORD	3.SG.POSS-tooth -M.PL	DEM.PROX.M.PL

‘Then, suddenly, it hits these, its fingers, and these, its teeth.’

(Durante, 2018, p. 290)

The presence of demonstrative pronouns promotes the specific reading of the referent. We can see two possible forms for its use:

- 1) Demonstrative adnominal following the noun phrase
- 2) Appositive use of the demonstrative before the noun phrase.

Along with the use of possessive prefixes and full form suffixes, demonstratives appear as one the most productive ways for the expression of definiteness in the language.

Indeterminacy in a broad sense

Indefiniteness and indeterminacy are expressed through different resources. The main nominal strategies are addressed in (Ciucci & Bertinetto, 2019, p. 148) and reproduced in table 1.

(18)	to	uasiñeque	ojat-ique
	soon	somewhere.else	stick-IF
	‘Soon, over there, a stick.’		
	(Durante, 2018, p. 278)		

In (18), the indeterminate form (-ique) is observed. In Table 1 of Section 3, the whole paradigm of the indeterminate form is presented. The use of this form to express indeterminacy is one of the main strategies. It is the opposite of the main strategy of specification of determined referents: the use of the full form (also in Table 1).

The strategy of the following example is the use of the indefinite pronoun *gosi*³. While in (18) the speaker does not know whether the denoted object is available or not, in (19) he positively knows that someone made the action denoted by the verb but does not know or remember who the person denoted by the pronoun is.

(19)	gosi	ch-ojninga	Atetaide Jusigacha	a-joso
	3.IF.M.SG	3-say	Atetaide Jusigacha	NIND-be.careful
	‘Someone said to Atetaide Jusigacha: “be careful”.’			

³ See Ciucci (2016: 697–700) for diachronic explanation of its morphology.

(Durante, 2018, p. 281)

There are also cases like the following:

- (20) y-icadigui jetiga y-ioedie cucha p-ibos-ode
 1.SG-forget SUB 1.SG-buy thing-BF.M.SG GF-food-M.PL
 'I forgot to buy any food.'

In (20), we see another productive way of conveying indetermination: a noun + noun compound with the irregular noun *cucha* (thing) in the base form and then the noun *-ibosoi* (food) with the generic form prefix *p-*. In Section (3), the generic form is addressed. Here, *cucha* refers to what (Lyons, 1999, p. 39) calls random sense or unrestricted choice: any entity that meets the condition of being edible can satisfy the reference.

CONCLUSION

The expression of definiteness in Ayoreo is constructed with the following resources: nominal suffixation using the full form, possessive prefixes on nouns, demonstrative pronouns, personal pronouns, noun phrases with demonstrative pronouns and proper names. Considering that the language does not show an independent word class such as article, the use of a wide variety of devices helps to state the specific or non-specific status of the referent. In this sense, we can characterize in details the articles in the Ayoreo language as a cross-linguistic category. The data survey allows us to generalize the following semantic features in each strategy in Table 8.

Table 8. Semantics of definiteness in Ayoreo

	FAMILIARITY	UNIQUENESS	IDENTIFIABILITY	INCLUSIVENESS
Noun in Full Form	+		+	+
Proper name	+	+	+	
Possessive prefix			+	+
Personal Pronoun	+	+	+	
Demonstrative Pronoun	+	+	+	

For its part, the language shows three strategies of indeterminacy as we can see in Table 9.

Table 9. Indeterminacy strategies

Suffixal strategy	Indeterminate Form
Pronominal strategy	Indeterminate Pronoun
Nominal compound strategy	Noun + Noun in Generic Form

The Ayoreo language shows a wide variety of resources that allows the speaker to indicate the definiteness of the referent in a way that is fully comprehensible to the

hearer. Also, the language shows different strategies to convey non-specificity and indeterminacy. The fact that the language does not show articles as an independent category is not an inconvenience for its cross-linguistics comparison.

Abbreviations

1: first person; 2: second person; 3: third person; BF: base form COORD: coordinator; DEM: demonstrative; DISC: discursive marker; DIST: distal; EVID: evidential; F: feminine; GF: generic form; IF: indefinite form; M: masculine; MED: medial; NIND: non indicative; PL: plural; POSS: possessive; PROX: proximal; SG: singular; SUB: subordinate.

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Conflict of interests

The authors declare no conflict of interest.

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