

**The relation between third person pronouns and demonstratives in Siona** Claassen, Simon

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# The relation between third person pronouns and demonstratives in Siona

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### Abstract

The Siona language is a member of the Tukanoan language family spoken in Colombia and Ecuador. The Ecuadorian variant of the language, Ecuadorian Siona, is spoken by approximately 300 people in northeastern Ecuador. It is an agglutinative language with a system of classifiers, various case markers and a rich fusional verbal morphology. The language distinguishes a first and second person in its pronouns and seemingly employs its demonstratives, in which it makes a three-way distinction, as third person pronouns. In order to examine the labels assigned to these three demonstratives and the relation between demonstratives and third person pronouns, which seem to largely overlap in Ecuadorian Siona, six narrations in Ecuadorian Siona, which were collected in northeastern Ecuador in 2010 and 2015, were analyzed in order to observe how pronouns are used in the language. It appears that the labels currently assigned to the language appears to designate a specific set of proximal demonstratives as third person pronouns. All in all, pronouns in Ecuadorian Siona appear to display typical grammatical properties when considered from a typological perspective.

## Introduction

A seemingly universal and, at the same time, cross-linguistically very diverse word class is that of pronouns. Although all languages seem to have a word class of pronouns of some sorts, languages can show a great amount of diversity with respect to the types of pronouns that they might or might not distinguish as separate subclasses and with respect to the strategies that they employ in order to express similar notions to those expressed by these potentially missing subclasses. In some languages, these notions are expressed using structures that are not pronominal, whereas in others, they are expressed by other types of pronouns, effectively coalescing two types of pronouns to the point where they cannot, at least formally, be distinguished as two separate subclasses.

These intricacies, which vary from language to language, prompt the interest and the necessity to study the pronominal systems of as many languages as possible, especially those of languages in which the structure of the pronominal system does not seem to be completely straightforward. One such language is Siona, which seemingly uses a variety of morphophonological forms as both demonstrative pronouns and third person pronouns. The Siona language is a Tukanoan language spoken in Colombia and Ecuador, more specifically in the Putumayo Department of Colombia and the Sucumbíos Province of Ecuador. The variety of the language spoken in Ecuador, hereafter called Ecuadorian Siona, is spoken by approximately 300 people across several villages in the eastern part of the Sucumbíos Province (Bruil, 2018:133).

As was stated above, Siona belongs to the Tukanoan language family. The Tukanoan languages can be subdivided into the Western, Central and Eastern Tukanoan languages. Siona is a Western Tukanoan and, to be more specific, a Northwestern Tukanoan language, along with Koreguaje and Sekoya (Gomez-Imbert, 2011:1448). In fact, Ecuadorian Siona forms a dialect continuum with Colombian Siona, Ecuadorian Sekoya and Peruvian Sekoya (Bruil, 2014:11). Ecuadorian Siona is mutually intelligible to a considerable degree with the Sekoya language and to a lesser degree with Colombian Siona, the two of which are also mutually intelligible with each other.

The current study will focus on Ecuadorian Siona and specifically on the personal and demonstrative pronouns of the language in order to answer several questions, namely what the grammatical properties of pronouns in Ecuadorian Siona are, what the relation is between third

person pronouns and demonstratives in the language, what the functions of the different forms of demonstratives found in the language are and whether or not these functions align with the preliminary labels that have been assigned to these forms in glosses so far, as the assignment of these labels has not yet been based upon thorough analysis.

To this end, the current section will give a concise overview of the grammar of Ecuadorian Siona. Next, section 2 will give a literature overview of personal and demonstrative pronouns and their grammatical properties across the languages of the world in order to understand the forms and functions that pronouns can possibly have in languages, including Ecuadorian Siona. Then, section 3 will detail the methodology that is used to investigate the pronominal system of Ecuadorian Siona. Section 4 will discuss the results of the analysis and thoroughly explain the grammatical properties of personal and demonstrative pronouns of Ecuadorian Siona. Finally, section 5 will present the conclusions and implications that may be drawn from these results.

In the following, a brief overview of the grammar of Ecuadorian Siona will be presented, starting off with the phonology of the language. Ecuadorian Siona has a phoneme inventory consisting of seventeen consonants and twelve vowels. Table 1 below shows the consonant phonemes of the language, whereas Table 2 displays the language's vowel phonemes. For the consonants, the left symbol in a pair represents the plain variant of a certain sound and the right symbol represents the laryngealized variant. Furthermore, the grapheme used to represent a certain phoneme in the orthography used here, if different from the symbol used in the International Phonetic Alphabet, is shown in brackets behind the phoneme. For the vowels, the left symbol in a cell represents the oral variant of a certain yowel and the right symbol represents the nasal variant.

	labial		coronal		velar		labialized velar		glottal
	plain	laryngealized	plain	laryngealized	plain	laryngealized	plain	laryngealized	Siotui
plosive	р	₽ ⟨b⟩	t	t (d)		k⁄g⟩	k <sup>w</sup> ⟨kw⟩	<u>k</u> <sup>w</sup> ⟨gw⟩	? (')
affricate			t∫ (ch)						
fricative			S	s (z)					h
nasal	m		n						
semivowel	W		j						

Table 1: consonants of Ecuadorian Siona (Bruil, 2014:87)

	front	back		
		unrounded	rounded	
high	i ĩ	iĩ	u ũ	
mid	e ẽ		0 Õ	
low		a ã		

Several of the consonants of Ecuadorian Siona have one or multiple allophones. More specifically,  $/p/has [\beta]$  as an allophone and /t/has [r] as an allophone in intervocalic, steminternal and affix-initial positions, while /j/has [n] as an allophone when surrounded by nasal vowels and  $[d_3]$  as an allophone that it is in free variation with. Additionally, it can be argued that [w j] are not phonemes, but in fact non-syllabic allophones of /o i/ and that /h/ in coda position is also not a phoneme, but rather a result of the phonetic process known as preaspiration (Bruil, 2014:106). For convenience, they will be considered phonemes here. On top of this, a variety of phonological processes occur in Ecuadorian Siona, one of which is, for instance, the coalescence of various vowels, such as /i i/, among others, with the vowels that precede them in various contexts (Bruil, 2014:115).

Morphologically, Ecuadorian Siona is a mainly agglutinative language with some degree of fusion. It employs suffixes to express grammatical categories on both nouns and verbs. As for its nominal morphology, the language marks noun classes, diminutives, number and case, among others, on nouns. An overview of the classifiers of Ecuadorian Siona can be seen in Table 3 below.

animate masculine	-ki/-i	cylindrical	-mo
animate feminine	-ko/-o	filiform	-me
animate collective	-bɨ/-hɨ	contoured	-wa
general	-je/-e	enclosed	-bo
place	-do/-to	container	-wi
time	-dĩ	bag	-tu'u
long	-jo	wall	-bã
round	-bi	maze	-di
flat	-do	tree	-j <del>i</del>
mass	-be	lake	-ја
grain	-ka	river	-da

Ecuadorian Siona has a variety of plural markers. Nominal elements with animate referents are generally pluralized using the plural marker *-wa'i*. For instance, *wahtio* 'spirit' can be pluralized to *wahtiowa'i* 'spirits' (Bruil, 2014:149). Certain nouns referring to family members are pluralized using the suffix *-dowi*, so that *hõhtai* 'nephew' is pluralized to *hõhtaidowi* 'nephews' (Bruil, 2014:151). Some other animate nouns are only pluralized using the collective classifier mentioned above, such as *wahsi* 'worm', which is pluralized to *wahsibi* 'worms' (Bruil, 2014:151).

Inanimate nouns that are not marked with classifiers are pluralized with the plural marker  $-j\tilde{a}$ , so that *hodo* 'flower' is pluralized to *hodojã* 'flowers' (Bruil, 2014:152), while inanimate nouns that are marked with classifiers are pluralized with the suffix  $-\tilde{a}$ , which is obligatorily preceded by the relevant classifier, so that the plural of  $\tilde{i}$ 'sij $\tilde{i}$  'pineapple tree', which features the tree classifier  $-j\tilde{i}$ , is thus  $\tilde{i}$ 'sij $\tilde{i}\tilde{a}$  'pineapple trees' (Bruil, 2014:154).

Ecuadorian Siona can make diminutives out of nouns with the diminutive marker *-mahka*. The suffix can be used on a variety of nominal elements, including pronouns, but it is mainly used on nouns. When used on nouns, the suffix indicates that the referent of the noun is small or, for mass nouns, comprises a small amount of something. For instance, in (1) below, the suffix indicates that there is only a small amount of money.

(1) kudi-so'ko-do-mahka ba-a-ji bãĩ
money-coin-CLS:FLAT-DIM be-TRS-N3S.PRS.ASS person
'The people have a little money.' (Bruil, 2014:165)

Nominal elements in Ecuadorian Siona can be marked with a variety of case markers. An overview of these case markers can be found in Table 4 below. While the case markers that are used for oblique arguments are generally obligatory, the case markers reserved for core arguments, which display nominative-accusative alignment, tend to be optional and the systematicity behind this phenomenon is intricate and requires more thorough study.

subject	
instrument	-bi
source	
location	-de/-te
object	
9	-ni
goal	-na
path	-hã'ã
comitative	-hã'de

Table 4: case markers of Ecuadorian Siona (Bruil, 2014:159)

The verbal morphology of Ecuadorian Siona is highly complex and fusional. Categories marked on the verb in Ecuadorian Siona include person, number, gender, tense, sentence type and evidentiality (Bruil, 2014:173). Due to its complexity and limited relevance to the current study, the verbal morphology will not be discussed.

A subclass of words that is relevant to the current study and therefore important to discuss is that of pronouns. Ecuadorian Siona has several subtypes of pronouns, namely personal, demonstrative and interrogative pronouns. Pronouns in Ecuadorian Siona generally have the same morphological possibilities as nouns and can thus be marked for noun class, number, diminutive and case. In fact, it seems that it is obligatory to mark pronouns with classifiers, with the exception of the personal pronouns. The personal pronouns of the language can be seen in Table 5 below. As one can see, the language makes a distinction in its pronouns between a first and second person and, within the first person plural, an additional distinction between a first person exclusive and inclusive.

		singular	plural
1	exclusive	ji 'i	jihki
	inclusive		mai
2	2	mi'i	m <del>i</del> hsaru

Table 5: personal pronouns of Ecuadorian Siona (Bruil, 2014:204)

Ecuadorian Siona has three interrogative pronouns, namely ke, which is used for entities, he, which is used for locations, and *mee*, used for manners, as well as three demonstrative pronouns, which also function as third person pronouns, namely a proximal demonstrative  $\tilde{i}$ , a medial demonstrative  $h\tilde{a}$  and a distal demonstrative he. However, the accuracy of the labels assigned to these latter three pronouns can be scrutinized, which is what the current study will aim to do. As was mentioned before, these labels are preliminary labels assigned by Bruil (2014) for convenience in glossing language data of Ecuadorian Siona.

The reassessment of these preliminary labels is not the only motivation for the current study. At first sight, the pronominal system of Ecuadorian Siona displays a certain degree of intricacy, as the language seemingly uses many morphophonologically distinct forms as both third person pronouns and demonstratives, which calls for a thorough analysis of the relation between these two types of pronouns in the language.

Especially the form  $\tilde{i}$  and its morphophonological variants, which are currently labeled as proximal demonstratives, appear to be very frequent. When taking a closer look, one can see that some variants of  $\tilde{i}$  lack nasality, which could hint at the fact that these forms are functionally or even etymologically distinct from their nasal counterparts. Until their consideration in the current study provides evidence to analyze them otherwise, for convenience, the two forms of  $\tilde{i}$  will for now be collectively referred to as proximal demonstratives.

## Literature on the typology of pronouns

Pronouns are one of the most common and universal word classes in the languages of the world (Hockett, 1963:16). Generally established subtypes of pronouns are personal pronouns,

demonstrative pronouns, interrogative pronouns, indefinite pronouns and, although mostly for European languages, possessive pronouns and relative pronouns (Haspelmath, 1997:11). Although in numerous languages, all of these subtypes are distinct from each other and have their own forms, functions and properties, certain subtypes of pronouns are found to be clearly related in many languages.

For instance, in many European languages, demonstrative, interrogative and relative pronouns have very similar forms (Lewandowska, 1974:67), as do interrogative and indefinite pronouns in Quechuan languages (Coombs, Coombs, & Weber, 1976:84). However, the most common similarity found in languages all across the world is one between personal and demonstrative pronouns (Höhn, 2015:93).

In the following, personal and demonstrative pronouns and the cross-linguistic properties of their morphology, syntax, semantics and pragmatics will be discussed. First of all, in subsection 2.1, the semantics will be dealt with, as this is a fundamental aspect of these types of pronouns and therefore important to discuss first, followed by a discussion of the morphological possibilities of pronouns in subsection 2.2, a discussion of their syntactic positions in subsection 2.3 and, finally, a discussion of their pragmatic uses in subsection 2.4.

In order to give an overview of the general linguistic properties of personal and demonstrative pronouns that is as complete as possible, the various linguistic features of both categories will be discussed. In the current study, the ones of these properties that are mostly important are those of demonstrative pronouns and third person pronouns, as these are the ones that are being focused on.

#### Semantics of pronouns across the world

Both personal and demonstrative pronouns are pronouns that refer to referents that are present in either the physical or the linguistic context of the utterance (Diessel, 1999:2). In other words, personal and demonstrative pronouns can be used either deictically or anaphorically. It is often hypothesized that the basic meaning or function of demonstrative pronouns is the former of these two functions, namely to refer to a physically present referent. This is tied to the fact that demonstratives in all languages display one distinct feature that sets them apart from other types

of pronouns, namely proximity. Personal pronouns, as their name might suggest, are most notably distinguished from other types of pronouns by the fact that they make a person distinction.

Generally, languages make a distinction between three levels of person (Shankara Bhat, 2004:133). These are the first person, referring to the speaker, the second person, referring to the hearer, and the third person, referring to any other referent. The Aboriginal language Warrongo, for instance, has a first person pronoun *ngaya*, a second person pronoun *yinda* and a third person pronoun *nyola* (Tsunoda, 2012:174).

Many languages distinguish more than three persons. For instance, languages can also distinguish an additional first person pronoun, called the first person inclusive, which refers to both the speaker and the hearer (Filimonova, 2005:400). This is known as a clusivity distinction. An example of a language with such a distinction is Mandarin Chinese, which has a first person pronoun 我 wo, but both a first person exclusive pronoun 我们 women and a first person inclusive pronoun 我 wo, but both a first person exclusive pronoun 我们 women and a first person inclusive pronoun 咱们 zánmen (Li & Thompson, 1989:134). As can be seen here, languages often make a clusivity distinction in the plural rather than the singular. In some languages, however, it also occurs in the singular, where it refers to only the speaker and the hearer and should thus rather be analyzed as a dual rather than a singular.

The first person inclusive is sometimes also called the fourth person. Some other additional person distinctions that are sometimes called the fourth person are obviative or non-topical third persons, which are contrasted with proximal or topical third persons in, for instance, certain Algonquian and Salishan languages (Akmajian & Anderson, 1970:2), and generic third persons, found in, for instance, Balto-Finnic languages (Tuomikoski, 1971:146).

An example of the former can be found in, for instance, Navajo, which distinguishes between a proximal third person pronoun bi and an obviative third person pronoun ho (Reichard, 1951:82). The latter, namely generic third persons, which occur in Finnish, among others, is not expressed in pronouns, but only in verb forms, and cannot always be clearly distinguished from a passive construction (Helasvuo & Vilkuna, 2008:221).

Finally, some languages distinguish additional pronouns based on register, which means that they have both a familiar and a formal pronoun for a certain person (Helmbrecht, 2003:189). This distinction is usually made exclusively in the second person, as can also be seen in the Basque

personal pronouns discussed below, but it is also possible for the distinction to occur in other persons. Thai, for instance, does not only distinguish between a second person familiar pronoun คุณ *khun* and a second person formal pronoun ท่าน *than*, but also between a first person feminine familiar pronoun ฉัน *chan* and a first person feminine formal pronoun ดิฉัน *dichan* (Smyth, 2005:42).

Instead of more persons, languages can also distinguish fewer persons. For instance, a great number of languages do not have third person pronouns, instead using demonstratives in this function (Shankara Bhat, 2005:179). An example of such a language is Basque, which has a first person pronoun *ni*, a familiar second person pronoun *hi* and a formal second person pronoun *zu*, but no third person pronoun, instead employing the demonstratives *hau*, *hori* and *hura*, which are the proximal, medial and distal demonstratives, respectively, in this function (Laka Mugarza, 1996:33).

Instead of using all demonstratives as third person pronouns, like Basque, languages can also designate a set of demonstratives of one specific level of proximity for this function, which can be the proximal, medial or distal demonstratives of the language. These levels of proximity will be discussed in the following. A language without third person pronouns where the distal demonstratives fulfill this function is Dyirbal, which will be discussed later on.

Next, the basic semantics of these different levels of proximity, which were already briefly mentioned, will be discussed. Proximity, which was mentioned before as a distinctive characteristic of demonstratives, encodes the distance of the referent of the demonstrative to the speech act participants and thus forms an important aspect of the semantics of the demonstrative. All languages distinguish between at least two and at most three degrees of proximity in their demonstratives (Diessel, 1999:36).

Languages with two levels of proximity distinguish between a demonstrative referring to a referent that is close to the speaker, a proximal demonstrative, and one referring to a referent that is far away from the speaker, a distal demonstrative. Modern Arabic, for instance, has a proximal demonstrative  $h\bar{a}d\bar{a}$  and a distal demonstrative  $d\bar{a}lika$  (Ryding, 2005:316).

Many languages additionally distinguish an intermediate level of proximity in the form of a medial demonstrative. Cross-linguistically, medial demonstratives generally refer to a referent

that is far away from the speaker but close to the hearer (Chen, 2011:172). For instance, Swahili has a set of three demonstratives for each of its noun classes. For the first noun class, it has a proximal demonstrative *huyu*, a medial demonstrative *huyo* and a distal demonstrative *yule* (Mohamed, 2001:112).

It has been claimed that a distinction can be made between so-called person-oriented languages, which are languages as described above, where the medial demonstrative refers to a referent close to the hearer, and distance-oriented languages, where the medial demonstrative refers to a referent not necessarily close to the hearer, but in medial distance relative to the speaker (Anderson & Keenan, 1985:282).

However, it is not fully clear whether this distinction is as clear cut as it is presented in the literature. For instance, a language that is mentioned in the literature as a distance-oriented language is Spanish (Levinson, 2004:109), even though the medial demonstratives *ese*, *esa* and *eso* in Spanish are also often said to refer to referents that are close to the hearer (Cifuentes-Honrubia, 1989:231).

Probably, both sides of this discussion have valid points and medial demonstratives in Spanish can be interpreted in both ways. The fact that medial demonstratives can be both distanceoriented and person-oriented within the same language might indicate that it could be wrong to label an entire language as either distance-oriented or person-oriented altogether and make a distinction between these two types of languages. Instead, it is possible that these two interpretations of medial demonstratives cooccur in languages all over the world.

Although the majority of languages have a simple two-way or three-way distinction in their demonstratives, as has been explained above, there are also languages where the dimension of proximity is a bit more complex. In fact, in these languages, the dimension of proximity should rather be analyzed as an interaction between proximity, visibility, elevation and direction (Diessel, 1999:41).

More specifically, there are languages that distinguish between demonstratives referring to referents that are visible or invisible to, at a higher or lower elevation than, uphill or downhill from, upriver or downriver from or moving towards, away from or across the visual field of the speaker. The Austroasiatic language Khasi, for instance, has a proximal demonstrative *une*, a

medial demonstrative *uto*, a distal demonstrative *utay*, a higher elevational demonstrative *utey*, a lower elevational demonstrative *uthie* and an invisible demonstrative *uta* (Nagaraja, 1985:11). The *u*- in these forms marks the gender of the referent, in this case masculine.

Languages usually use distinct, suppletive forms for personal pronouns of different persons or demonstratives of different levels of proximity. This is usually also the case for the additional dimensions of proximity discussed above. Another strategy that languages can employ in order to distinguish between different persons or levels of proximity is the use of morphology. Some languages namely have a bare pronominal or demonstrative root that is not specified for person or proximity. To this root, these languages add affixes that encode the intended person or proximity (Diessel, 1999:36).

Munichi is an example of a language with a bare pronominal root. This language has a pronominal root *apa*'-, to which the person markers of the language are added in order to form a first person singular pronoun *apa*'*nü*, a second person singular pronoun *apa*'*pü*, a first person plural exclusive pronoun *apa*'*wü*, a first person plural inclusive pronoun *apa*'*wüdü* and a second person plural pronoun *apa*'*dü* (Gibson, 1996:83). An example of a language with a bare demonstrative root is Alamblak, which has a definite article root *ind*-, to which suffixes are added that encode proximity, which yields a proximal demonstrative *indarr* and a distal demonstrative *indarr* (Bruce, 1984:81).

In Basque, which was discussed before, demonstrative pronouns also fulfill the role of the third person pronoun. In many other languages, demonstratives and third person pronouns partially or completely overlap in form or function, which can make it difficult to distinguish the two from each other. The ways in which third person pronouns and demonstratives are similar to and different from each other are often intricate and therefore interesting to study.

Only in extreme cases, such as Basque, however, where the forms used as demonstratives and as third person pronouns are exactly and completely the same, could and should one say that a language does not make a distinction between the two. In other languages, where the two show formal similarities but can still be distinguished, both in their form and in the contexts in which they are used, it can still be meaningful to distinguish them.

One such functional difference between demonstratives and third person pronouns is a distinction between deictically and anaphorically used pronouns. These uses will be discussed more elaborately later on in the subsection on pragmatics. Some languages can only use demonstrative pronouns deictically or exophorically, while reserving third person pronouns for anaphoric reference. An example of such a language is Trio, which uses the forms *mëe*, *mëërë*, *ohkï* and *mëkï* solely for deictic reference, while using the pronoun *nërë* only for anaphoric reference (Carlin, 2004:148).

Another such distinction that languages can make is one of animacy. More specifically, in some languages, personal pronouns can only refer to animate referents, whereas demonstrative pronouns need to be used if one wants to refer to inanimate referents. In Hungarian, for instance, the third person pronoun *ő* can only refer to animate referents, while the distal demonstrative *az* can be used to refer to inanimate referents (Kenesei, Vago, & Fenyvesi, 1998:260).

In order to understand personal and demonstrative pronouns, it is in general important to understand the basic notions and meanings that they express, which were discussed above. For the current study, the notions expressed by proximal, medial and distal demonstratives are especially important, as these labels will be used in the analysis of demonstratives in Ecuadorian Siona. Additionally, the different ways in which third person pronouns can stand in relation to demonstratives, which they can be distinct from, partially identical to or fully identical to, are also of importance.

#### Morphology of pronouns across the world

As was discussed above, languages very often use suppletive forms and very rarely use inflectional suffixes in order to mark personal pronouns for person and demonstrative pronouns for proximity. Much more frequently than person and proximity, languages morphologically inflect their personal or demonstrative pronouns for various other grammatical categories, most importantly gender, number and case (Shankara Bhat, 2004:91), although these categories are also occasionally expressed through suppletion in languages, especially in personal pronouns.

In this subsection, the ways in which the categories gender, number and case are marked on pronouns, which usually happens morphologically, will be examined. Additionally, the distinctions that languages make in their pronouns with respect to these grammatical categories

will be discussed. To this end, examples of grammatical distinctions that languages make in their pronouns will be presented. Some of the languages in the examples might make these distinctions using suppletion rather than morphology, which might be counterintuitive with regard to the title of this subsection. It should therefore be noted that these are merely examples used to illustrate the grammatical distinction itself and not necessarily the strategies used to mark it.

The grammatical categories that personal and demonstrative pronouns are marked for are usually the same categories also marked on other nominal elements, such as nouns and other types of pronouns. The Kolokuma dialect of the Ijo language family, for instance, has masculine nouns, which are marked with the masculine gender marker  $-b_i$ , feminine nouns, which are marked with the feminine gender marker -ma, and plural nouns, in which the gender distinction is lost and which are marked with the plural marker  $-m\rho$ . The language distinguishes these same categories in its pronouns and thus has a third person masculine pronoun *eri*, a third person feminine pronoun *áràų* and a third person plural pronoun *omini* (Williamson, 1965:114).

A cross-linguistic pattern that can be observed, however, is that personal and demonstrative pronouns in a certain language, as well as other types of pronouns, are often marked for grammatical categories that are not marked on nouns in that language, such as gender or case. In English, a language without case or gender, for instance, certain personal pronouns are marked for gender and case, with the third person masculine pronoun 'he' having an oblique case form 'him' and the third person feminine pronoun 'she' having an oblique case form 'her', in addition to a third person neuter pronoun 'it' (Wales, 1996:13).

Additionally, in various languages, personal and demonstratives are marked for the same grammatical categories as nouns, but distinguish more levels for these categories than nouns do. For instance, some languages distinguish dual or even trial number in their pronouns but not in their nouns. In fact, a distinction of trial number never occurs in nouns cross-linguistically, but only in pronouns (Trudgill, 2015:138).

This occurs in some Austronesian and Kiwaian languages. An example of such a language is Manam, which has, for instance, a third person singular pronoun *ngai*, a third person dual pronoun *diaru*, a third person trial pronoun *diato* and a third person plural pronoun *di*, but only distinguishes singular and plural in other word classes, such as verbs and adjectives (Lichtenberk, 1983:270).

As was discussed above, in their pronouns, languages can distinguish more grammatical categories or more levels for certain grammatical categories. It is also possible for languages to make a completely different distinction for certain grammatical categories in pronouns or certain subtypes of pronouns compared to nouns. This most notably occurs with morphosyntactic alignment.

For instance, Dyirbal has a split-ergative system with nominative-accusative alignment in its personal pronouns and ergative-absolutive alignment in all other nominal elements, including other types of pronouns. In Dyirbal, for instance, the first person pronoun has a nominative case form *yada* and an accusative case form *yayguna* and the second person pronoun has a nominative case form *yinda* and an accusative case form *yinuna*, whereas the distal demonstrative, which also functions as a third person pronoun, has an absolutive case form *bayi* and an ergative case form *baygul* (Dixon, 1972:50).

#### Syntax of pronouns across the world

A notable difference between personal and demonstrative pronouns in many languages can be observed in their syntactic possibilities. In general, demonstratives have more syntactic possibilities than personal pronouns, which can usually only occur in the syntactic position of nouns (Ritter, 1995:418). There are also languages, however, where the syntactic possibilities of personal and demonstrative pronouns are the same. For instance, in some languages, demonstratives can also only occur in nominal positions, while in other languages, personal pronouns can be used as modifiers. An example of such a language is Latin, where the personal pronouns *is*, *ea* and *id* can also be used as deictically weak determiners, which are then often translated as definite articles (Panhuis, 2006:36).

Demonstrative pronouns, as was stated above, can occur in various syntactic positions. Some languages use different morphologically inflected or suppletive forms for demonstratives in different positions, whereas other languages use the same forms. An example of a language of the former type is French, which uses the demonstrative *ce* in combination with either the proximal clitic *-ci* or the distal clitic *-là* to form constructions with demonstrative modifiers, but uses the proximal demonstrative *celui-ci* and the distal demonstrative *celui-là* as pronominal demonstratives (Calvez, 1993:62).

Cross-linguistically, demonstratives can occur in syntactic positions otherwise containing nouns, adjectives, adverbs or predicates. These uses of demonstratives are called pronominal, adnominal, adverbial and identificational demonstratives, respectively (Diessel, 1999:57). As was stated above, not all languages can have demonstratives in all of these positions.

Pronominal demonstratives, which stand on their own and can replace a full noun phrase, and adnominal demonstratives, which modify nouns, occur in most languages. Adverbial demonstratives can indicate the proximity of various elements, but they most commonly do so for places and moments in time. Some languages do not have formally distinct adverbial demonstratives, but simply derive these from nominal demonstratives by adding oblique case suffixes to them. Finally, identificational demonstratives only occur in nonverbal or copular sentences and serve to identify and point out referents in the physical or linguistic context (Diessel, 1999:79). They cannot always be clearly functionally distinguished from pronominal demonstratives and are only very rarely formally distinguished in languages.

For illustrative purposes, examples of demonstratives in these four syntactic positions will be given. If a speaker, for instance, says 'That makes me happy!', they are using a pronominal demonstrative, as the demonstrative constitutes a noun phrase on its own, but if they say 'That thing makes me happy!', they are instead using an adnominal demonstrative, as the demonstrative is a modifier within a noun phrase. If a speaker says 'The thing is lying there!', they are using an adverbial demonstrative, as the demonstrative occurs in a position normally fulfilled by adverbial phrases. Finally, if a speaker says 'That is good!', they are using an identificational demonstrative, as the demonstrative is part of a copular construction.

#### Pragmatics of pronouns across the world

Personal and demonstrative pronouns, in all of the syntactic positions that they can occupy, can have various pragmatic uses. Cross-linguistically, a distinction can be made between an exophoric, anaphoric, discourse deictic and recognitional use of pronouns. These four uses will be discussed one by one.

The exophoric or deictic use is, as was stated before, considered to be the most basic use of demonstratives, but personal pronouns can also be used in this way. Pronouns used in this way refer to referents physically present in the context of the discourse. For instance, in a certain

situation, if somebody were to ask 'Who is the one who took my sandwich?', another person could point towards somebody else and say 'He is the one!' or 'That guy is the one!' as a response. The former of these two utterance features an exophorically used personal pronoun and the latter an exophorically used demonstrative pronoun.

Anaphorically used pronouns, instead, refer to referents that are present within the discourse. As was stated before, personal pronouns are used anaphorically very frequently across languages, but it is also possible for demonstratives to be used anaphorically. Both types of pronouns are very useful for the creation of coherence within discourse. For instance, when somebody is telling 'Yesterday, I met a man...' and they then go on to tell what happened next, they could say 'He parked his car next to mine at the grocery store!' and later on in the story they could tell 'After a while, I saw that man again in the dairy isle!', which are two utterances containing anaphorically used pronouns. The former contains an anaphorically used personal pronoun and the latter an anaphorically used demonstrative.

Demonstratives used as discourse deictics refer to parts of the discourse as a whole, such as a clause, a sentence or a portion of a story. For instance, if somebody tells another person 'My husband and I have bought a house!', that other person can respond by saying 'That is great!', which would be an example of an utterance with a discourse deictic demonstrative, as it refers to the whole utterance produced by the first speaker. Personal pronouns can generally not be used in this way.

Finally, the recognitional use of demonstratives is very distinct from the other uses described above. An example of the recognitional use of a demonstrative pronoun in English would be 'So I know this girl...' Personal pronouns cannot be used in this way. More specifically, only adnominal demonstratives can be used in this way and, when they are, they do not refer to a referent present in the context, but rather introduce a new referent. This use, together with the anaphoric and discourse deictic uses, can be collectively referred to as the endophoric use (Diessel, 1999:93).

In the preceding sections, the morphological, syntactic, semantic and pragmatic properties of personal and demonstrative pronouns have been discussed from a typological perspective. It would now be interesting to see how the personal and demonstrative pronouns of Ecuadorian Siona fit into this picture. On the one hand, this would form a valuable addition to research on

Ecuadorian Siona and would help to better understand this language. On the other hand, it would be good to test the established typological properties of demonstratives by attempting to apply them to a new language that they have not been applied to before. Although it is not necessarily expected that these will be found, any properties of demonstrative pronouns in Ecuadorian Siona that do not fit or are new to the established typology would require reassessment or revision of this typology.

An important aspect of this investigation will be the assessment of the preliminary labels assigned to the pronouns of Ecuadorian Siona. A thorough analysis of the use of pronouns in Ecuadorian Siona will provide evidence that an accurate assignment of labels can be based upon and will therefore indicate whether the preliminary labels as they have currently been assigned are appropriate despite their lack of analytical substantiation.

Additionally, this analysis will also aid in determining the relationship between third person pronouns and demonstratives in Ecuadorian Siona. As was discussed above, the observed functional and formal overlap between the two that seemingly occurs in Ecuadorian Siona prompts the interest to investigate the intricacies of this pronominal system. Languages can, as was mentioned above, have their third person pronouns and demonstratives stand in relation to each other to various degrees. Third person pronouns can namely be completely distinct from or partially or completely overlap with one or all of the demonstratives of the language. A similar phenomenon could be at play in Ecuadorian Siona.

It would therefore be interesting to investigate whether the language makes a detectable distinction between third person pronouns and demonstrative pronouns or whether they are indistinguishable from each other in this language. Especially the seemingly disproportionate frequency of the alleged proximal demonstratives raise the suspicion that such a phenomenon could occur in Ecuadorian Siona, as one would not logically expect demonstratives of a certain level of proximity to be used disproportionately more often than other demonstratives without a good explanation, which could be the generalization of a certain form to contexts that are not as strongly deictically marked.

## Methodology

In order to investigate if and how this language marks grammatical categories such as gender, number and case on its pronouns, employs pronominal, adnominal, adverbial and identificational demonstratives and uses pronouns exophorically, anaphorically, discourse deictically and recognitionally, narratives in Ecuadorian Siona will be analyzed. In this section, the various aspects of the methods used to investigate all of this will be discussed. First, the analyzed data will be discussed. The subsection after that will explain how these data were analyzed.

#### Data

In order to investigate the demonstrative pronouns of Ecuadorian Siona, language data of this language will be analyzed. These language data consist of six audio files featuring speakers of the language telling stories along with corresponding transcriptions and translations of these stories. These audio and video files were collected by Bruil (2015) during fieldwork in northeastern Ecuador in 2010 and 2015 as part of a documentation project of Ecuadorian Siona. The narrators of the stories were all native speakers of Ecuadorian Siona and would tell the story either alone or in pairs. Even when the story would be told in pairs, it would be told fairly monologically, as the speakers would not react to each other, but instead narrate the story together.

The focus of this study will mostly be on narrated stories because these tend to show language in one of its most natural forms. Additionally, one expects to find many pronouns in narrated stories, as these can be used in stories in order to coordinate the referents and organize and clarify the narration. An overview of the six analyzed stories can be found in Table 6 below.

story	title
20100907slicr002	The two brothers
20100913slicr002	The one who couldn't hunt
20101123slicr001	The batman
20150721sglpi003	The sea lions
20150808srocr005	Siona life
20151030oalsu001	Like a tapir's whistle 1

Table 6: analyzed narrated stories

#### Method of analysis

In the analyzed stories, all instances of the relevant pronouns will be registered. More specifically, all instances of demonstrative pronouns and third person pronouns will be registered, as the distinction between the two in Ecuadorian Siona is not completely clear and, as was stated before, the intricate ways in which the two stand in relation to each other are an interesting object of study.

All attested instances of demonstrative pronouns and third person pronouns will thus be extracted and registered separately along with all relevant information on each pronoun. Specifically, this information will state where in the stories the pronoun is found, what the form of the pronoun is, what properties it has in terms of morphology, syntax, semantics and pragmatics, what the referent of the pronoun is and what its function in the discourse is. Examples of two possible attestations of pronouns along with their relevant characteristics as they would be stored in the data can be found in Table 7 below. After that, these characteristics and the methods that are used to determine them for each attested pronoun will be discussed.

file	sentence	pronoun	morphology	syntax	semantics	pragmatics	referent	function
201xxxxxxxxxxxxxxx	x 1 ĩ	ĩ	gender	pronominal	proximal	anaphoric	the man	refer to recurring
20133333333333333333333		l	classifier - <i>i</i>	demonstrative		anaphone		referent
201xxxxxxxxxxxxxx	2 hã	hã	classifier - <i>je</i>	identificational	medial	avanharia	the thing	refer to present
		classifier -je	demonstrative	mediai	exophoric	lying there	referent	

The first step in this process of data collection would be to localize an occurrence of a pronoun and recognize it as being an instance of one of the pronouns  $\tilde{i}$ ,  $h\tilde{a}$  or he or any of their inflected forms. The next step would be to determine how the pronoun is built up morphologically and, thus, which inflectional morphemes it contains. For this step and for the following steps, labels that originate from the discussed literature on pronouns will be employed.

Next, the syntactic position would have to be determined. For this, the entire sentence in which the pronoun occurs and the translation of this sentence would have to be considered. One would have to look closely at the verbs in the sentence and their arguments. For instance, if the pronoun constitutes an argument of a transitive or intransitive verb in a sentence by itself, one can conclude that this is either a nominal or an adverbial demonstrative, depending on whether the

argument that it constitutes is a core or oblique argument, respectively. If the pronoun occurs next to a noun and can be shown to be a part of the noun phrase, it is an adnominal demonstrative. Finally, if the pronoun is a part of a construction with the copula *ba*-, it is an identificational demonstrative.

In order to then determine which pragmatic use of pronouns is at play for each attested pronoun, it is especially important to consider the translation and the context of the sentence. One needs to determine the referent of this pronoun. If one can conclude from the translation that the pronoun does not refer to a physical entity but to a part of the text, it is an instance of the discourse deictic use. The difference between exophorically and anaphorically used pronouns is relatively easy to make for narrations. If the pronoun does not occur inside a quote within the story, it is almost definitely an instance of the anaphoric use. If it does occur inside a quote, it is quite likely that it is an instance of the exophoric use. It is not necessarily expected that the recognitional use will be found in these narrations, as it is fairly rare to begin with, but this use can be identified in cases where an adnominal demonstrative refers to a referent that was not mentioned before in the story.

It was stated before that one expects to find many pronouns in narrations, as these can be used to bring cohesion to a narration. Pronouns that are used in this way are generally anaphorically used pronouns, which could make one question the usefulness of narrations for research on pronouns in all of their uses. Nevertheless, the discourse deictic and exophorically used demonstratives are also found throughout the stories and the high density of all of the different types of pronouns in narrations definitely makes these a valuable resource for investigating the use of pronouns.

Based on the collected data, generalizations will be made with respect to the relation between the forms and functions of personal and demonstrative pronouns in Ecuadorian Siona. Through this, it will become evident which labels are most appropriate for each of the forms of the pronouns, what the relationship is between third person pronouns and demonstratives in the language, whether certain forms of the pronouns are reserved for certain functions and whether any other interesting patterns can be observed in the distribution of demonstratives across morphological, syntactic, semantic and pragmatic functions. For instance, it is possible that certain morphophonological forms of pronouns tend to be more common or even restricted to certain syntactic positions or pragmatic uses. Likewise, it is possible that certain pragmatic uses of pronouns are more common in certain syntactic positions and the other way around.

As for the possible conclusions of this study, it is possible that the preliminary labels turn out to be appropriately accurate for the forms that they have been assigned to. For instance, it is possible that the forms currently labeled as medial demonstratives do indeed turn out to refer mainly to referents at medial distance away from the speaker and closer to the hearer. It is also possible that the referents that a certain form is used to refer to throughout the data appear to consistently be at different proximities than the one corresponding to the current preliminary label. This could be evidence to reassess the label and reanalyze the form. Additionally, if certain specific forms appear to be used anaphorically or in referce to animate referents significantly more often than not, this could be evidence to analyze these forms as third person pronouns instead of demonstrative pronouns.

## Analysis

In the following subections, the results of the analysis will be presented, interpreted and analyzed with respect to their morphology, syntax, semantics and pragmatics. The order in which these aspects will be discussed is the same as the order adhered to in the literature section, which means that the semantics of the pronouns will be discussed in subsection 4.1, their morphological possibilities will be discussed in subsection 4.2, their syntactic positions will be discussed in subsection 4.3 and their pragmatic uses will be discussed in subsection 4.4. For each aspect of grammar, the frequencies of the different types of pronouns and the frequencies of the different specific morphological forms will be shown. All of these results are based on the six stories mentioned above. These stories contained a total of 204 occurrences of personal and demonstrative pronouns.

#### Semantics of pronouns in Ecuadorian Siona

First of all, the conclusions that can be drawn from the results with respect to the occurrences of the three semantically distinct forms will be discussed. Table 8 shows the frequencies of the proximal, medial and distal demonstratives. When looking at the results, one can immediately see that the proximal demonstrative occurs extremely frequently, whereas the distal demonstrative occurs extremely rarely. This latter observation, namely the rarity of the distal demonstrative, could be explained in several ways.

Table 8: frequencies of pronouns of different proximities

proximity	frequency
proximal	170
medial	31
distal	3

First of all, this rarity might be due to the fact that narrated stories do not provide contexts in which distal demonstratives would be normally used in Ecuadorian Siona. For instance, if one assumes that Ecuadorian Siona has a person-oriented system and that narrated stories generally tend to focus on interactions between different persons, which causes the context of the story to center around these persons, one could imagine distal demonstratives to be used less frequently.

However, the extremely rare occurrence of this form, which occurs only three times, all three of which are shown for illustrative purposes in (2-4) below, likely has another underlying cause. It might namely be the case that this form is slowly falling into disuse and that, over time, this form might cease to be used completely. Ecuadorian Siona would then have developed a two-way demonstrative system, where the medial demonstrative would take the place of the distal demonstrative and therefore be used for faraway referents. This is, however, only speculation, as only time and the analysis of more data in the future will tell if this development continues.

(2) ji'i=kato ũhku-je bãã-ji he-e
1s=TOP drink-EV.NLZ NEG.COP-N3S.PRS.ASS DEM.DIST-CLS:GEN
'I'm not drinking that.' (20101123slicr001)

(3) newesi-na he-e ĩ-i jude kaa-ni iho-hi-na get.lost-DS DEM.DIST-CLS:GEN DEM.PROX-CLS:ANIM.M now say-SS wait-PL.PRS.DEP-DS ĩ-i sa-ni *ĩ-ih-te* io'o-sih-k<del>i</del>-de DEM.PROX-CLS:ANIM.M go-SS DEM.PROX-CLS:ANIM.M-OBJ do-NLZ.CMP-CLS:ANIM.M-OBJ dawi jo'o-ki bã '-ki-jã wizard do-S.M.PRS.DEP.BI be.REM.PST-2/3S.M.PST.N.ASS.MN-REP 'When he got lost and they were waiting, he did wizardry.' (20100907slicr002) (4) *beo* wa'i heh-ko-wa'i-ni ji'i nee-je NEG.EXIS fish DEM.DIST-CLS:ANIM.F-PL-OBJ 1 do-EV.NLZ 'The fish, those for me to catch, aren't there.' (20100913slicr002)

As for this aforementioned medial demonstrative, it would be interesting to see whether its use in Ecuadorian Siona indicates whether this language has a person-oriented system or a distanceoriented system. As will also be seen later on, in the subsection on pragmatics, exophorically used medial demonstratives occasionally refer to referents that are not clearly located near the hearer of the utterance in which they occur, which might be evidence for a distance-oriented system. As was stated before, however, the distinction between these two types of systems is arguably not as clear cut as it is sometimes made out to be. In line with this, medial demonstratives in Ecuadorian Siona also occasionally refer to referents that are clearly close to the hearer. Based on the data under consideration here, however, no definitive conclusions can be drawn with respect to the identity of the medial demonstratives.

Then, as for the proximal demonstrative, it might be interesting to discuss why this form occurs so frequently. Again, as with the distal demonstrative, one could explain this by assuming that, in narrated stories, the focus is often on the protagonist of the story, who tells about their direct surroundings, which would logically prompt the use of the proximal demonstrative. However, as the proximal demonstrative occurs so overwhelmingly frequently, one might suspect that there is something else going on.

One might expect, for instance, that this form is often not necessarily used as a proximal demonstrative, but that it rather functions as a personal pronoun in various contexts. One might suspect this because it would not necessarily be expected that demonstratives of a certain level of proximity are used disproportionately more often than other demonstratives without a good explanation. Such an explanation could be the generalization of a certain form to contexts that are not as strongly deictically marked and are therefore found more frequently. This type of context is one where personal pronouns are typically found.

If one now takes a closer look at the various forms preliminarily labeled as proximal demonstratives that have been attested, one can see a pattern. Some forms consist of the oral high front vowel /i/, whereas others consist of /i/, the nasal high front vowel. When looking at the distribution of both forms, an interesting split can be seen. All anaphorically used forms of the proximal demonstrative consist of the nasal variant, aside from three occurrences of the form *ije*, whereas all discourse deictic and exophorically used proximal demonstratives consist of the oral variant. Additionally, all forms consisting of the nasal variant refer, without exception, to animate

entities, while all forms consisting of the oral variant, except maybe for one occurrence of *ihki*, refer to inanimate entities.

In order to illustrate this, a typical occurrence of a form consisting of the nasal vowel can be seen in (5), where the pronouns anaphorically refer to a recurring animate referent in the story, and an occurrence of a form consisting of the oral vowel can be seen in (6), where the form refers to a physically present inanimate referent.

(5) *ī*-o *ã* 'so duhta-ha-ni ãõ gɨ 'to-ni
DEM.PROX-CLS:ANIM.F cassava.root pull.out-DUR-SS cassava grate-SS *ī*-o *ãõ nee-o-jã*DEM:PROX-CLS.ANIM.F cassava make-2/3S.F.PST.N.ASS.BI-REP
'She went to pull out cassava, grated the cassava and she made cassava.'
(20101123slicr001)
(6) *ih-ko ke-o-a- 'ne*

DEM.PROX-CLS:ANIM.F what-CLS:ANIM.F-COP-INT 'What is this thing?' (20101123slicr001)

Thus, the forms consisting of the nasal vowel are all used anaphorically and in reference to animate beings. Cross-linguistically, as was stated before, these are two very important features of personal pronouns that tend to set them apart from demonstrative pronouns in some languages. Based on these neatly divided results, it is arguably quite safe to assume that, in Ecuadorian Siona, forms of the proximal demonstrative consisting of the nasal high front vowel are actually not proximal demonstratives, but really personal pronouns.

It is important to note that these forms, despite their considerably similar appearance, might not be etymologically or paradigmatically related to each other at all. It is possible, of course, that they have different etymological origins and that their formal similarity is merely coincidental or originates from their partial overlap in use. Historical linguistic research on earlier stages of Ecuadorian Siona and Proto-Tukanoan would have to indicate whether the two forms are etymologically related.

For now, due to their formal resemblance and functional similarities, they will be considered formal variants of the demonstrative pronoun, one of which has acquired the function of personal

pronoun. It is possible that the nasality of the forms functioning as personal pronouns was once used to productively derive them from proximal demonstratives, as nasalization is known to be used for inflectional purposes in Ecuadorian Siona, such as the formation of the remote past tense (Bruil, 2014:97). If one now makes this distinction, the distribution of pronouns changes, as can be seen in Table 9 below.

proximity	frequency
personal pronoun	163
proximal	7
medial	37
distal	3

Table 9: frequencies of personal and demonstrative pronouns of different proximities

As one can see, the medial demonstratives are now the most frequent demonstratives and a lot more frequent than both the proximal and distal demonstratives. This might partly be due to the relatively frequent occurrences of the adverbially used form *hãmahka*, which is arguably a lexicalized adverb rather than a true demonstrative, but even when distracting their frequencies from the totals, seventeen medial demonstratives are left.

Another piece of evidence in favor of the analysis of the proximal demonstratives consisting of the nasal vowel as personal pronouns is provided by possessive constructions. Possessive constructions in Ecuadorian Siona are formed by placing a personal pronoun in front of the possessed noun. For the first and second person, reduced forms of the pronouns, *ji* ' and *mi* ', are used, as can be seen in (7-8), which might indicate that pronouns in possessive constructions cliticize to the possessed noun. For the third person, only forms consisting of the nasal vowel occur in possessive constructions, as can be seen in (9), which might be further evidence that these forms are personal pronouns referring to the third person as opposed to the first and second persons.

(7) ji'=ha'-ki-bi kwẽẽ-hẽ'ĩ sõhki-jĩ
1S=parent-CLS:ANIM.M-SBJ fell-3S.M.PST.ASS.MN tree-CLS:TREE
'My father felled a tree.' (Bruil, 2016:1)

- (8) go'i-ni wa'i-de sa-a-hi'i mi'=ba-ko-ki'-do
  return-ss fish-OBJ take-TRS-IMP 2S=spouse-CLS:ANIM.F-contain-CLS:PLACE
  'When you go back, take the fish to your wife.' (Bruil, 2014:162)
- (9) hãi-di si'a-i-jã ĩ-i=hehte-na
  hammock-CLS:MAZE stick-2/3S.M.PST.N.ASS.BI-REP DEM.PROX-CLS:ANIM.M=back-GOAL
  'The hammock stuck onto his back.' (Bruil, 2014:170)

As was also stated in the introduction, part of the purpose of this analysis is to verify and, if necessary, revise the assignment of the three labels, proximal, medial and distal, to the three forms,  $\tilde{i}$ ,  $h\tilde{a}$  and he. These labels have partly been assigned for both convenience and preliminary analysis and conceptualization of language data in Ecuadorian Siona and, therefore, their assignment is thus far somewhat arbitrary and not based upon thorough analysis.

As the majority of the attested pronouns are either anaphorical and reminiscent of personal pronouns or lexicalized forms, it is still rather difficult to come to a definitive conclusion with respect to the accuracy of these labels. However, a closer look at the attested forms provides quite some evidence in favor of the labels as they are currently assigned. This will be further elaborated upon in the subsection on pragmatics.

#### Morphology of pronouns in Ecuadorian Siona

In this subsection, the morphological possibilities of pronouns and demonstratives will be discussed based on the attested forms. The 204 occurrences of pronouns were made up of 36 distinct morphophonological forms. These forms were built up from a free morpheme, which was one of the pronouns  $\tilde{i}$ ,  $h\tilde{a}$  or he, followed by one or more inflectional morphemes. These morphemes were the classifiers -i/-ki, -o/-ko, -je and  $-d\tilde{i}$ , the pluralizer -wa'i, the suffix -mahka, the case suffixes -bi, -de/-te, -ni,  $-h\tilde{a}'\tilde{a}$  and  $-h\tilde{a}'de$ , the additive suffix  $-h\tilde{e}$  and the restrictive suffix -se'e.

First of all, as can be seen above, pronouns in Ecuadorian Siona can be marked with classifiers. In fact, it appears that every attested demonstrative is marked with a classifier, which suggests that it is obligatory for pronouns to be marked in this way. The classifiers that are attested on the pronouns in the data are the masculine classifier -(k)i, the feminine classifier -(k)o, the general classifier -(j)e and one instance of the time classifier  $-d\tilde{i}$ . When added to the proximal demonstratives, the masculine and feminine classifiers can yield two different forms each. On the form with the nasal vowel, the allomorphs -i and -o occur, which nasalize due to the nasal vowel of the demonstrative. As the vowel /i/ is known to coalesce with any high vowel that precedes it (Bruil, 2014:117), the masculine classifier is not overtly expressed due to coalescence, yielding the form  $\tilde{i}$ , which thus has  $\tilde{i}\tilde{i}$  as its underlying structure. The feminine variant of the form with the nasal vowel is  $\tilde{i}\tilde{o}$ . When added to the form with the oral vowel, the allomorphs -ki and -ko are used, which cause preaspiration and thus yield the forms *ihki* and *ihko*, respectively. As was stated before, these two different types of forms, namely forms with the nasal vowel and forms with the oral vowel, can be analyzed as personal pronouns and proximal demonstrative pronouns, respectively.

When added to the medial demonstratives, the gender classifiers yield forms that are very similar to those of the personal pronouns. Namely, the masculine form is  $h\tilde{a}\tilde{i}$  and the feminine form is  $h\tilde{a}\tilde{o}$ . As can be seen, the allomorphs *-i* and *-o* are added to the demonstratives, which are then, just like with the proximal demonstratives, nasalized under the influence of the nasal vowel in the demonstrative.

Since the distal demonstratives are very rare, not much can be concluded about their morphological possibilities, as many of these possibilities are simply not attested in the limited dataset, despite the fact that they might logically be there. Only one distal demonstrative with an overt gender classifier was attested, namely *hehkowa'ini*, which shows that for the distal demonstratives, unlike the personal pronouns and medial demonstratives but similar to the true proximal demonstratives, the allomorph *-ko* of the feminine classifier is added, which then causes preaspiration and yields the form *hehko*. From this, one can deduce that the masculine form would then probably be *hehki*.

The general classifier -(j)e is also frequently attested on demonstratives. When added to the proximal demonstratives, the allomorph -je is used, which yields the form ije. Most likely, when added to the medial demonstratives, the allomorph -e is used, which is then dropped due to coalescence, simply yielding the form  $h\tilde{a}$ . Although there is no explicit evidence for this, as the suffix -e is not superficially present and coalescence of /e/ with preceding vowels is not necessarily attested elsewhere in the language, other vowels are known to do this and one would otherwise need to explain why this demonstrative then does not feature a classifier.

The same process can be observed with the distal demonstratives, although here too without explicit evidence. Here, the allomorph -e is added, which is again coalesced, simply yielding he, which is known to happen in the language when a vowel is preceded by an identical vowel (Bruil, 2014:115). This form is peculiar, as the allomorph -e of the general classifier tends to occur on words on which the allomorphs -i, -o and -do of the masculine, feminine and place classifiers, respectively, are used.

However, as was mentioned above, the allomorph *-ko* of the feminine classifier is found on the distal demonstrative. Additionally, it is known that the addition of the place classifier to a distal demonstrative yields the form *hehto*, featuring the allomorph *-to* (Bruil, 2014:144). This could make one wonder why the allomorph *-je* of the general classifier is apparently not the one used on distal demonstratives. One could explain this by claiming that this form exists, but has simply not been attested yet, and that the form *he* lacks a classifier. This analysis, however, is unfavorable, as one would then need to explain why this form lacks a classifier, the occurrence of which appears to be otherwise obligatory on pronouns.

Finally, a single demonstrative form containing the time classifier  $-d\tilde{i}$  was attested. Its use was attested on the medial demonstrative, namely in the form of  $h\tilde{a}d\tilde{i}$ . From the data, it cannot be deduced whether this classifier can also be used on the proximal and distal demonstratives. It is not necessarily unreasonable to assume that it can, but it is, of course, possible that its use on the medial demonstrative is a lexicalized or fossilized construction. An overview of the forms of the pronouns with classifiers, excluding this time classifier, can be found in Table 10 below.

proximity	masculine	feminine	general
personal pronoun	ĩ	ĩõ	-
proximal	ihki	ihko	ije
medial	hãĩ	hãõ	hã
distal	hehk <del>i</del>	hehko	he

Table 10: morphophonological forms of personal and demonstrative pronouns of different proximites with classifiers

As was stated before, pronouns in Ecuadorian Siona can also be pluralized. This is done using the plural suffix *-wa'i*. Its use is attested on proximal demonstratives, namely in the form of iwa'i, on medial demonstratives in the form of haiwa'i and on distal demonstratives in the form of

*hehkowa'i*. Although these forms were not attested in the data used here, it is known that the feminine variant of the medial demonstrative mentioned above, *hãõwa'i*, as shown in (10), also occurs, as does the feminine plural form of the proximal demonstrative, *ĩõwa'i* (Bruil, 2014:126). Although, as was stated before, the masculine variant *hehki* of the distal demonstrative was not attested, this form, if it is assumed to exist, would logically also have a plural form *hehkiwa'i*.

(10) jõ 'kwe-dihcho-i-jã hã-o-wa 'i dõmi-zĩ-de
move-make.fall-2/3S.M.PST.N.ASS.BI-REP DEM.MED-CLS.ANIM.F woman-children-OBJ
'It moved and made the girls fall.' (Bruil, 2014:161)

As can be seen, the plural suffix only occurs on the personal pronouns and not on the true proximal demonstratives. This makes sense, as the plural marker *-wa'i* is only used to mark animate nouns as plural and, as was seen before, the personal pronouns in Ecuadorian Siona refer exclusively to animate nouns, whereas the true proximal demonstratives, except maybe for the single occurrence of *ihki* that was attested, refer to inanimate nouns. Note that other plural markers, such as the inanimate plural suffix *-jã*, are not attested on pronouns.

Occasionally, pronouns in Ecuadorian Siona are marked with the diminutive suffix *-mahka*. At first sight, it appears that the majority of the attested forms with the diminutive suffix are instances of *hāmahka*, which has been stated before to be an idiomatic form of some sorts. This form is namely used as a linking word and translated as 'hence' and clearly does not feature a diminutive meaning in its semantics. There is reason to believe, however, that this suffix *-mahka* is a different suffix that is coincidentally homophonous with the diminutive suffix, namely an adverbializer. This would explain the adverbial identity of this pronoun and its lack of diminutive meaning.

The suffix *-mahka* is also found in the data on the personal pronouns  $\tilde{i}$  and  $\tilde{i}\tilde{o}$ . Both the form  $\tilde{i}\tilde{o}mahka$  occur once, the former only as  $\tilde{i}mahkade$  in combination with the object marker *-de*. These are definitely instances of the diminutive suffix. The former clearly refers to a small entity, namely a child, while the latter refers to an adult woman and thus not necessarily to a small entity, but the diminutive is used here to evoke compassion, empathy or pity, as the referent has just experienced something terrible. This allows for the pronoun to be translated as 'poor her' in this context. These associations with the use of diminutives can be found across languages (Ponsonnet, 2018:24).

As can be seen, the singular pronouns marked with the object marker -de/-te have two different allomorphs each. Although these forms are apparently the same morphologically and semantically, they are phonetically quite different. For instance, when the masculine pronoun is marked with the allomorph -de, the /t/ of the suffix is pronounced as [r] due to its affix-initial and intervocalic position, causing the resulting form *îde* to be pronounced as ['î.re]. When the masculine pronoun is marked with the allomorph -te, however, the /t/ of the suffix causes preaspiration, causing the resulting form *îhte* to be pronounced as ['î.te] (Bruil, 2014:103). The phonetic analysis of these forms also applies to their feminine variants.

The feminine proximal demonstrative occurs in the data with the object marker *-de* in *ihkode* and with the object marker *-ni* in *ihkoni*. Next, the masculine medial demonstrative occurs with the subject marker in *hãĩbi*, with the object marker *-te* in *hãĩhte* and with the object marker *-ni* in *hãĩni*, whereas the feminine medial demonstrative occurs in the data with the subject marker in *hãõbi* and the general medial demonstrative occurs with the path marker in the possibly lexicalized form *hãmahkahã 'ã*. Finally, the feminine plural distal demonstrative occurs with the object marker *-ni* in *hehkowa'ini*.

One should note that not all case markers are attested on all different types of pronouns. In some cases, this is probably coincidental. For instance, the comitative  $-h\tilde{a}$  'de was not attested on a medial demonstrative, although it has been attested before on the masculine plural medial demonstrative as  $h\tilde{a}\tilde{i}wa$  ' $ih\tilde{a}$  'de, as can be seen in (11) below. Grammaticality judgment tasks would be required in order to determine which case markers can occur with each pronoun.

(11) hã-i-wa'i-hã'de kõõ-ni ĩhjõ ĩmi-toa-jo-wi
DEM.MED-CLS:ANIM.M-PL-COM accompany-SS here high-fire-canoe-CLS:CONTAIN gahe-hã'-ko-de ma'a hio-ka-i'i
descend-PRP-CLS:ANIM.F-OBJ path clear-BEN-N3S.PST.ASS
'We accompanied them here, we helped to clear the path where the plane would land.' (Bruil, 2014:213)

In other cases, the absence of certain combinations of pronouns and case markers might have a structural explanation. The goal marker *-na*, for instance, is not attested on pronouns in the data. This might be due to the fact that pronouns often refer to animate referents and locational case markers, such as the goal marker, occur more frequently with inanimate referents, as can be seen in (12), which shows a typical instance of the goal marker, used on an inanimate referent. Additionally, it appears that, when the goal marker is used with animate referents in Ecuadorian Siona, a construction with the possessive suffix *-ki* and the place classifier *-to/-do* is required, as can be seen in (13) below, which could lead one to assume that this construction would also be used with pronouns referring to animate referents.

(12) jehk-i ti 'wi-na ĩ-i hẽ-ni kãh-ki-jã
other-CLS:ANIM.M side-GOAL DEM.PROX-CLS:ANIM.M cross-SS sleep-2/3S.M.PST.N.ASS-REP
'He crossed to the other side and slept.' (Bruil, 2014:170)
(13) ne'-ja mi '=jĩhko-i-ki '-do-na sa-i-hĩ 'ĩ

bruise-CLS:RIVER 2S=grandparent-CLS:ANIM.M-contain-CLS:PLACE-GOAL go-IMPF-IMP 'Go to the Eno River, to your grandfather!' (20151030oalsu001)

Another example of a structural absence that one would expect in the data is the absence of forms of the proximal demonstrative with the oral vowel in combination with the object marker *-ni*, as the forms with the oral vowel tend to have inanimate referents, while this object marker, according to the preliminary results of ongoing research into case marking in Ecuadorian Siona, tends to be used with animate referents. Interestingly, however, one occurrence of such a form with the object marker *-ni* occurs, namely the form *ihkoni*.

The occurrence of this form despite the fact that it has an inanimate referent might be explained by the fact that it is marked with the feminine classifier, which might prompt an association with animacy or humanness. Alternatively, it might be possible that the observation that the object marker *-ni* only occurs with animate referents only applies to full noun phrases and not to pronouns, which is also one of the preliminary conclusions of the aforementioned ongoing research.

Two other suffixes were attested on pronouns in the data. These were the restrictive suffix *-se'e*, which is translated as 'only' and occurs in the form *ĩse'e*, and the suffix *-hẽ*, which is translated as 'also' and occurs in the forms *ĩõhẽ* and *hãĩhtehẽ*. This brings the number of inflectional morphemes found on pronouns to quite a high total. One can see that, among others, pronouns in Ecuadorian Siona can be marked for gender, number and case, which were stated before to be three categories that are commonly marked on pronouns cross-linguistically. Ecuadorian Siona does not mark additional categories, nor does it distinguish additional levels within any category.

#### Syntax of pronouns in Ecuadorian Siona

Next, the properties of pronouns in the various syntactic positions in which they can occur in Ecuadorian Siona will be discussed. In the examples below, (14) shows an instance of a pronominal demonstrative, as the demonstrative constitutes the object argument position of the verb by itself, (15) shows an example of an adnominal demonstrative, as the demonstrative is modifying the noun that follows it, (16) shows an adverbial demonstrative, as the demonstrative constitutes an oblique argument referring to a place or a moment in time and, finally, (17) shows an identificational demonstrative, as the demonstrative constitutes one of the arguments of the copular verb that occurs in the sentence.

(14) *ih-ko-ni* ã-i-je goa dee-ko-a-o DEM.PROX-CLS:ANIM.F-OBJ eat-IMPF-EV.NLZ only hang-CLS:ANIM.F-TRS-3S.F.PST.ASS.BI 'I'm eating this, it's just hanging here.' (20101123slicr001) (15) si'a-wa'i iha-i-kohka kaa-k<del>i</del> i-je jãjĩ all-PL stranger-CLS:ANIM.M-language say-S.M.PRS.DEP.BI DEM.PROX-CLS:GEN month 'Everybody speaks Spanish this month.' (20150808srocr005) jũ-'i (16) *ji i ih-ko-de* kia-ji 1S DEM.PROX-CLS:ANIM.F-LOC sit-IMPF tell-N3S.PRS.ASS 'I'm sitting and telling here and now.' (20150808srocr005)

# (17) ba-'i-hi i-je ojo-bãĩ jo'o-hi ba-'i-se'e be-IMPF-3S.M.PRS.ASS DEM.PROX-CLS:GEN bat-person do-PL.PRS.DEP be-IMPF-RSTR 'This is the story of what the batman did.' (20101123slicr001)

Table 11 shows the frequencies of pronouns in pronominal, adnominal, adverbial and identificational positions. The first observation that can be made concerns the fact that pronouns used as the head of a noun phrase, pronominal demonstratives, are extremely common in Ecuadorian Siona, whereas pronouns used as a modifier within a noun phrase, adnominal demonstratives, and pronouns used in copular constructions, recognitional demonstratives, are very rare.

syntactic position	frequency
pronominal	182
adnominal	2
adverbial	17
identificational	3

Table 11: frequencies of pronouns in different syntactic positions

Table 12 shows the various morphophonological forms of the attested adnominal demonstratives and Table 13 shows these same forms, but grouped by pragmatic use. From this, one can see that all attested instances of adnominal demonstratives have the same form. This could be evidence that only this form can be used adnominally in Ecuadorian Siona. Note that the forms of the pronominal demonstratives are not shown like this, as these are too numerous to allow for a comprehensible and meaningful representation.

Table 12: frequencies of morphophonological forms of adnominal demonstratives

morphophonological form	gloss	frequency
ije	DEM.PROX-CLS:GEN	2

Table 13: frequencies of morphophonological forms of adnominal demonstratives grouped by pragmatic use

pragmatic use	morphophonological form	gloss	frequency
exophoric	ije	DEM.PROX-CLS:GEN	1
anaphoric	ije	DEM.PROX-CLS:GEN	1

The fact that all attested adnominal demonstratives have the same form, as well as their highly infrequent occurrence, makes the status of adnominal demonstratives in Ecuadorian Siona slightly dubious. Additionally, for both instances, the demonstrative could also arguably be analyzed as a pronominal or identificational demonstrative. For instance, the adnominal demonstrative that can be seen in (18) could perhaps also be interpreted as an identificational demonstrative. Syntactically, however, the analysis of both forms as adnominal demonstratives appears to make more sense. This could mean that only this specific form can be used adnominally in Ecuadorian Siona, whereas all other forms cannot be used in this way.

(18) mai=kohka mai=hu-'i-je mai=ã-i-je
1PL.INCL=language 1PL.INCL=dress-IMPF-EV.NLZ 1PL.INCL=eat-IMPF-EV.NLZ
ai-bi bãĩ-se'e-hẽ ba-i-hi i-je
old-CLS:ANIM.COL person-RSTR-also be-IMPF-3S.M.PRS.ASS DEM.PROX-CLS:GEN
ai-do
old-CLS:PLACE

'Our language, clothing and food of the ancients is in this forest.' (20150808srocr005)

The observation that was made above that pronominal demonstratives occur highly frequently when compared to other possible syntactic positions might be explained by the fact that the data analyzed here were retrieved from narrated stories, which usually have people or objects as their topics, which are generally referred to using noun phrases. Additionally, one could also try to explain this by looking at languages in general. Across languages, each sentence usually contains at least one, but often multiple, core arguments, which are generally expressed by noun phrases, whereas sentences do not necessarily need adjuncts, which are express by adverbial phrases. It would thus not be illogical to assume that nominal demonstratives are generally a lot more common than adverbial demonstratives.

As for these adverbial demonstratives, these are indeed a lot less frequent in the data compared to pronominal demonstratives. Table 14 shows the various morphophonological forms of the adverbial demonstratives, which are split up by pragmatic use in Table 15. As can be seen here, whenever adverbial demonstratives occur, they almost always carry a case marker of some sorts. This might lead one to conclude that this is the way in which Ecuadorian Siona marks adverbial

demonstratives as such. This is one of the two most common strategies to form adverbial demonstratives across the languages of the world, the other one being stem suppletion.

morphophonological form	gloss	frequency
ĩhã 'de	DEM.PROX-CLS:ANIM.M-COM	1
ihkode	DEM.PROX-CLS:ANIM.F-LOC	1
hãdĩ	DEM.MED-CLS:TIME	1
hãmahka	DEM.MED-CLS:GEN-ADVZ	13
hãmahkahã 'ã	DEM.MED-CLS:GEN-ADVZ-PATH	1

Table 14: frequencies of morphophonological forms of adverbial demonstratives

Table 15: frequencies of morphophonological forms of adverbial demonstratives grouped by pragmatic use

pragmatic use	morphophonological form	gloss	frequency
exophoric	ihkode	DEM.PROX-CLS:ANIM.F-LOC	1
exophone	hãdĩ	DEM.MED-CLS:TIME	1
anaphoric	ĩhã 'de	DEM.PROX-CLS:ANIM.M-COM	1
discourse deictic	hãmahka	DEM.MED-CLS:GEN-ADVZ	13
discourse delette	hãmahkahã 'ã	DEM.MED-CLS:GEN-ADVZ-PATH	1

Two forms form an exception to this observation. One of them is the possibly lexicalized form *hãmahka*, which never occurs with a case marker, except for the one occurrence of the form *hãmahkahã 'ã*, where it carries a goal marker. It is thus not a case marker that marks this form as an adverb. Instead, it might be the suffix *-mahka* that does this, as this suffix can be analyzed as an adverbializer, although it is also possible that the lexicalization of this form exempts it from needing any adverbial marking. Another possibility comes to mind when one notes that all discourse deictic adverbial demonstratives are realized as *hãmahka*. This might mean that adverbial demonstratives that are used in a discourse deictic way do not need any case marking in Ecuadorian Siona. Still, the analysis of the suffix *-mahka* as an adverbializer fits its form and function quite nicely, as it is always used adverbially but lacks a case marker to mark it as such.

The other attested adverbial demonstrative without a case marker is  $h\tilde{a}d\tilde{i}$ , which features the time classifier. As expressions referring to time are almost always adverbial, it makes sense to assume that the use of this classifier plays an important role in the interpretation of this form as an

adverb. This classifier might thus fulfill the function fulfilled by case markers in other adverbial demonstratives.

The only syntactic position left to discuss is the position of identificational demonstratives, which are demonstratives used in nonverbal copular constructions. These are quite rarely found in the data, but this can quite easily be explained by the fact that they only occur in copular constructions, which are not an overwhelmingly frequent type of sentence to begin with, especially not in narrated stories. Table 16 shows the different morphophonological forms of the identificational demonstratives, which are split up by pragmatic use in Table 17.

Table 16: frequencies of morphophonological forms of identificational demonstratives

morphophonological form	gloss	frequency
ihko	DEM.PROX-CLS:ANIM.F	1
ije	DEM.PROX-CLS:GEN	1
hãĩ	DEM.MED-CLS:ANIM.M	1

Table 17: frequencies of morphophonological forms of identificational demonstratives grouped by pragmatic use

pragmatic use	morphophonological form	gloss	frequency
exophoric	ihko	DEM.PROX-CLS:ANIM.F	1
exophone	hãĩ	DEM.MED-CLS:ANIM.M	1
discourse deictic	ije	DEM.PROX-CLS:GEN	1

Although not much can be concluded based on the three instances of identificational demonstratives attested in the data, the forms used to express them are forms that also regularly occur in the position of pronominal demonstratives. This would lead one to conclude that identificational demonstratives are not formally different from pronominal demonstratives in Ecuadorian Siona, which is the case for the majority of languages in the world.

#### **Pragmatics of pronouns in Ecuadorian Siona**

Finally, it would be interesting to look at the properties of the exophoric, anaphoric and discourse deictic uses of pronouns found in the data and see how the various morphophonological forms of pronouns are used in these various ways. In the examples below, (19) shows an instance of an exophorically used demonstrative, as the demonstrative refers to an object that the speaker has

just found lying on the ground, (20) shows an example of an anaphorically used demonstrative, as the demonstrative refers to a recurring referent that was mentioned just before and, finally, (21) shows a discourse deictically used demonstrative, as the demonstrative refers to the things that the speaker is saying.

(19) *ih-ko* ke-o-a-'ne DEM.PROX-CLS:ANIM.F what-CLS:ANIM.F-COP-INT 'What is this thing?' (20101123slicr001) ũhku-je (20) *bãĩ* ĩ-i-wa'i dũdi ba-a-ji person DEM.PROX-CLS:ANIM.M-PL drink-EV.NLZ be-TRS-N3S.PRS.ASS chonduri 'The elders, they have something to drink, chonduri.' (20101123slicr001) nee-gwajo-se'e gũĩ'ne i-je (21) *jihki* ji'i kaa-se'e jehk-i 1PL.EXCL do-CAUS-RSTR then DEM.PROX-CLS:GEN 1s say-RSTR other-CLS:ANIM.M mo'se mihsaru-bi ahcha-hi ba-'i-hã'-ko-wa'i-a-'i dav 2PL-SBJ listen-PL.PRS.DEP be-IMPF-PRP-CLS:ANIM.F-PL-COP-N3S.ASS.COP 'We did things and I'm telling things, you're listening to this another day.' (20150808srocr005)

Table 18 shows the frequencies of exophorically and endophorically used pronouns and Table 19 shows this information again, but then with the endophoric use split up into the anaphoric and discourse deictic uses. From this, one can see that the anaphoric use is extremely common in the data, while the recognitional use, where the demonstrative modifies a noun and introduces its referent into the discourse, is completely absent.

Table 18: frequencies of pronouns with exophoric and endophoric uses

pragmatic use	frequency
exophoric	14
endophoric	190

Table 19: frequencies of pronouns with different pragmatic uses

pragmatic use	frequency
exophoric	14
anaphoric	172
discourse deictic	18

This latter fact, namely the absence of recognitionally used demonstratives, might indicate that the recognitional use of demonstratives does not occur in Ecuadorian Siona. This is perhaps tied to or caused by the fact that pronouns are apparently only very rarely used adnominally in Ecuadorian Siona, which is how recognitionally used demonstratives always occur. Furthermore, adnominal demonstratives can apparently only take one form in Ecuadorian Siona. As such, these restrictions might prevent adnominal demonstratives from being used recognitionally.

The former observation mentioned above, namely the high frequency of anaphorically used demonstratives, can of course easily be attributed to the fact that the analyzed pronouns are derived from narrated stories, which is a genre that one would expect to heavily feature the anaphoric use, as these stories usually narrate about referents that are not physically present during the narration of the story, but that are only present within the context of the discourse. One of the analyzed stories forms an exception to this, as this story tells about the life of the Siona and occasionally refers to the present time and to the place where the story is told, namely the place where the Siona live.

It would now be interesting to look at each pragmatic use one by one. First of all, in the following, the exophoric use of the various morphophonological forms of the pronouns will be analyzed. The exophoric use, which is sometimes said to be the most basic use of demonstratives, tends to be slightly more straightforward in mapping forms to functions when compared to the other pragmatic uses. This is the case because, across languages, the distinguished levels of proximity found in demonstrative pronouns tend to be specialized in particular to refer to the physical proximity of a referent as expressed by exophorically used demonstrative pronouns.

Table 20 shows the different morphophonological forms of the attested exophoric demonstratives, which are grouped by syntactic position in Table 21. Note that the forms of the anaphorically used demonstratives are not shown like this, as these are too frequent to allow for an easily interpretable representation. As can be seen below, almost all of the exophorically used proximal demonstratives occur in the form of *ihko* or one of its inflected forms, with the exception of one occurrence of *ihki* and one of *ije*. As was stated before, all or almost all occurrences of true proximal demonstratives appear to refer to inanimate referents. The form *ihki* likely forms an exception to this pattern, as it appears to refer to an animate referent, as can be seen in (22) below.

morphophonological form	gloss	frequency
ihki	DEM.PROX-CLS:ANIM.M	1
ihko	DEM.PROX-CLS:ANIM.F	1
ihkode	DEM.PROX-CLS:ANIM.F-LOC	2
ihkoni	DEM.PROX-CLS:ANIM.F-OBJ	1
ije	DEM.PROX-CLS:GEN	1
hãĩ	DEM.MED-CLS:ANIM.M	1
hãĩni	DEM.MED-CLS:ANIM.M-OBJ	2
hãŧwa'i	DEM.MED-CLS:ANIM.M-PL	2
hãdĩ	DEM.MED-CLS:TIME	1
he	DEM.DIST-CLS:GEN	1
hehkowa'ini	DEM.DIST-CLS:ANIM.F-PL-OBJ	1

Table 20: frequencies of morphophonological forms of exophoric demonstratives

Table 21: frequencies of morphophonological forms of exophoric demonstratives grouped by syntactic position

syntactic position	morphophonological form	gloss	frequency
	ihki	DEM.PROX-CLS:ANIM.M	1
	ihkode	DEM.PROX-CLS:ANIM.F-OBJ	1
	ihkoni	DEM.PROX-CLS:ANIM.F-OBJ	1
pronominal	hã <del>ĩ</del> ni	DEM.MED-CLS:ANIM.M-OBJ	2
	hãĩwa 'i	DEM.MED-CLS:ANIM.M-PL	2
	he	DEM.DIST-CLS:GEN	1
	hehkowa'ini	DEM.DIST-CLS:ANIM.F-PL-OBJ	1
adnominal	ije	DEM.PROX-CLS:GEN	1
adverbial	ihkode	DEM.PROX-CLS:ANIM.F-LOC	1
auverblar	hãdĩ	DEM.MED-CLS:TIME	1
identificational	ihko	DEM.PROX-CLS:ANIM.F	1
	hãĩ	DEM.MED-CLS:ANIM.M	1

(22) mee nee-i-'ne ih-ki

hũ~hũ-'i

how do-IMPF-INT DEM.PROX-CLS:ANIM.M die~PLACT-IMPF

'How did this happen, this one having died?' (20100913slicr002)

Evidently, the occurrence of the classifier *-ko* on forms that generally refer to inanimate referents must mean that the classifier *-ko* attested on most proximal demonstratives does not encode female biological gender of the referent, as opposed to *-ki*, which does appear to be used due to the male gender of the referent. It might be the case that the classifier *-ko* is used on proximal demonstratives to refer to more concrete objects, but also to locative expressions, while the classifier *-je* might be used to refer to more abstract objects, as will be seen in the examples below.

All instances of exophorically used proximal demonstratives refer to referents that are in some way or another close to the speakers of the utterances in which they occur. One occurrence of *ihko*, accompanied by the locative case marker *-de*, shown below in (23), refers to the present time and place and can be translated as 'here and now', which features an extended use of the locative marker to refer to moments in time as well, whereas others refer to a thing that the speaker just found lying somewhere, as shown in (24), and a part of the speaker's body, shown in (25) below.

(23) jihki nee-gwãjo-se'e gũĩ'ne i-je ji'i kaa-se'e jehk-i
IPL.EXCL do-CAUS-RSTR then DEM.PROX-CLS:GEN 1S say-RSTR other-CLS:ANIM.M mo'se mihsaru-bi ahcha-hi ba-'i-hã'-ko-wa'i-a-'i
day 2PL-SBJ listen-PL.PRS.DEP be-IMPF-PRP-CLS:ANIM.F-PL-COP-N3S.ASS.COP
'We did things and I'm telling things, you're listening to this another day.'
(20150808srocr005)
(24) *ih-ko ke-o-a-'ne*DEM.PROX-CLS:ANIM.F what-CLS:ANIM.F-COP-INT

'What is this thing?' (20101123slicr001)

(25) *ih-ko-ni* ã-*i-je* goa dee-ko-a-o

DEM.PROX-CLS:ANIM.F-OBJ eat-IMPF-EV.NLZ only hang-CLS:ANIM.F-TRS-3S.F.PST.ASS.BI 'I'm eating this, it's just hanging here.' (20101123slicr001)

The form *ihki*, as was mentioned above, refers to a man who was just found by the speakers and the form *ije*, which can be seen in (26), refers to the forest in which a Siona community lives. The story is being told in this community and the forest is thus very close to the speaker. The

classifier *-je* is arguably used here instead of *-ko* because a forest is a slightly more abstract referent than, for instance, a body part.

(26) mai=kohka mai=hu-'i-je mai=ã-i-je
1PL.INCL=language 1PL.INCL=dress-IMPF-EV.NLZ 1PL.INCL=eat-IMPF-EV.NLZ
ai-bi bãĩ-se'e-hẽ ba-i-hi i-je
old-CLS:ANIM.COL person-RSTR-also be-IMPF-3S.M.PRS.ASS DEM.PROX-CLS:GEN
ai-do
old-CLS:PLACE

'Our language, clothing and food of the ancients is in this forest.' (20150808srocr005)

Most of the exphorically used medial demonstratives are instances of  $h\tilde{a}\tilde{i}$  or one of its inflected forms, all of which refer to animate referents. Additionally, there is one instance of an exophoric use of the form  $h\tilde{a}$ , referring to an inanimate object, and one of an exophoric use of the form  $h\tilde{a}d\tilde{i}$ , referring to a moment in time. These forms all refer to referents that are a certain distance away from the speaker. They sometimes, but not always, refer to referents that are close to the hearer.

A few of the occurrences of  $h\tilde{a}\tilde{i}$  refer to a man that is neither very far from the speaker nor from the hearers and might be used to create some sort of opposition between this man and the speaker, as can be seen in (27). Another instance of  $h\tilde{a}\tilde{i}$  refers to a bunch of killed animals that are slightly far away from the speaker, who is in the water, but very close to the hearer, who is on the land next to the animals, as is shown in (28). Another instance of this form refers to a group of fish swimming in the water not far from both the speaker and the hearer, which can be seen in (29), whereas yet another instance refers to the thunder, which is seen as an animate person in Ecuadorian Siona. The medial demonstrative might be used in this latter case because the speaker is asking the thunder who they are using the third person, as can be seen in (30).

(27) jehk-i-na hãde hã-i-ni õhku-a-hĩ 'ĩ
other-CLS:ANIM.M-GOAL like.this DEM.MED-CLS.ANIM.M-OBJ drink-TRS-IMP
'Give it to him to drink, to the other one!' (20101123slicr001)

(28) <i>hã-i-wa</i> 'i	jɨ'=wai-sih-ko-wa'i	i-de	hẽõ-	a-go'a-je	
DEM.MED-CLS:ANIM.M-P	DEM.MED-CLS:ANIM.M-PL 1S=kill-NLZ.CMP-CLS:ANIM.F-OBJ throw-TRS-be.bad-EV.NLZ				
bãã-hĩ ʾĩ					
NEG.COP-IMP					
'Don't throw away those	that I killed!' (20100	)907slicr002)	)		
(29) wa'i ba-'i-hi	hã-i-wa'i	sia-h	ŧĩ	ha'o	
fish be-IMPF-3S.M.PRS.A	SS DEM.MED-CLS:ANI	M.M-PL colle	ct-IMF	P leaf	
'Those are the fishes, co	llect some leaves!' (20	0100913slicr	002)		
(30) ke-i-a- 'i- 'ne	ke	ba-'i-'ne	hã- <del>i</del>		
what-CLS:ANIM.M-COP-N	3S.ASS.COP-INT what	be-IMPF-INT	DEM.	MED-CLS.ANIM.M	
'Who is that?' (2010091	3slicr002)				

The one instance of  $h\tilde{a}d\tilde{i}$ , which is used exophorically and can be seen in (31) below, refers to a moment that happened a short while ago, which is in that sense not very close to the speaker. Once again, this form could be lexicalized, which could mean that it has lost its exophoric meaning.

(31) bõni-ni jãã-ni hã-dĩ da-ni da-i-hã'-ko
turn-SS see-SS DEM.MED-CLS:TIME come-SS come-IMPF-PRP-S.F.PST.DEP.MN
'You should have turned around and come back before.' (20101123slicr001)

One of the two instances of exophorically used distal demonstratives, which is found in (32), is used to refer to chonduri that is offered to the speaker by several people standing at some distance from him, which means that this referent is thus not very close to the speaker. The other instance, found in (33), occurs in the same context as the medial demonstrative that refers to the group of fish and refers to that same group of fish. The fact that two demonstrative pronouns of different levels of proximity are used to refer to the same referent can be explained by the fact that, in the case of the distal demonstrative, the speaker is stating that they cannot see the fish, which might imply that the speaker therefore assumes that they are further away.

(32) ji 'i=kato ũhku-je bãã-ji he-e
1s=TOP drink-EV.NLZ NEG.COP-N3S.PRS.ASS DEM.DIST-CLS:GEN
'I'm not drinking that.' (20101123slicr001)

# (33) beo wa'i heh-ko-wa'i-ni ji'i nee-je NEG.EXIS fish DEM.DIST-CLS:ANIM.F-PL-OBJ 1 do-EV.NLZ 'The fish, those for me to catch, aren't there.' (20100913slicr002)

The above findings suggest that the labels as they have been used so far, namely proximal demonstrative for  $\tilde{i}$ , medial demonstrative for  $h\tilde{a}$  and distal demonstrative for he, are appropriate. Alleged proximal demonstratives appear to refer to referents that are rather close to the speaker, whereas medial and distal demonstratives refer to referents that are further away. As was stated before, it is difficult to come to a definitive conclusion on this matter, as there are not many attestations of demonstrative pronouns that are not anaphorically used personal pronouns.

Attestations of the form *he* are especially few in number, making it difficult to assess the appropriateness of its label of distal demonstrative, which might also be fitting for the form  $h\tilde{a}$ . Based on various attestations of  $h\tilde{a}$  that refer to nearer referents, however, the present study concludes that the current labels are adequately appropriate. As was also stated before, if future research indicates that *he* has at some point completely fallen into disuse and all faraway referents are referred to using  $h\tilde{a}$ , revision of these labels would be in order.

As for the anaphoric use of pronouns, a closer look is needed in order to determine how the different forms of the pronouns are used, as this is occasionally not as straightforward in languages as for the exophoric use. The overwhelming majority of anaphorically used pronouns are instances of  $\tilde{i}$  and  $\tilde{i}\tilde{o}$  and their inflected forms. As was stated before, there is plenty of evidence to not analyze these as true proximal demonstratives, but rather as personal pronouns.

The high frequency of these personal pronouns makes it tricky to conclude anything about contexts or conditions that would prompt speakers to use these forms, as they are used in so many different contexts that it is almost impossible to pinpoint specific contexts in which they occur or rules that determine when they occur. One overarching way in which these forms are used throughout all of the stories is reference to topical referents that are continuously present within the discourse throughout a story. For instance, in one story, the form  $\tilde{i}$  is used for a long part of the story to refer to a man and the form  $\tilde{i}\tilde{o}$  is used to refer to that man's wife. This is known as reference tracking and is a very important type of anaphoric use of pronouns (Comrie, 1999:345).

As anaphorically used medial demonstratives are a lot less frequent, it would be interesting to see what pattern could be found here. The various instances of anaphorically used medial demonstratives appear to have in common, which additionally sets them apart from the personal pronouns, that they all refer to non-topical referents, which are referents that are less important to the story as a whole or have only been introduced into the story relatively recently when compared to more topical referents (Shelden, 1986:236). For instance, in (34), the form  $h\tilde{a}\tilde{i}$  is used in order to contrast a certain referent with the main character of the story, who is the topic, and on another occasion, the form  $h\tilde{a}$  is used to refer to an object that is used several times by the protagonist over the course of a few sentences, but not enough for it to actually become topical, as is shown in (35).

(34) jehk-i-na hãde hã-i-ni õhku-a-hĩ 'ĩ
other-CLS:ANIM.M-GOAL like.this DEM.MED-CLS.ANIM.M-OBJ drink-TRS-IMP
'Give it to him to drink, to the other one!' (20101123slicr001)
(35) jihto-tia-ni toa-na hẽõ-ũ-a-ni io-ki-na hã-e

cut-pull.out-SS fire-GOAL throw-lie-TRS-SS burn-S.M.PRS.DEP.BI-DS DEM.MED-CLS:GEN  $\tilde{i}$ -i=sewi goa-deba bidabidabida uu-j $\tilde{a}$ DEM.PROX-CLS:ANIM.M=pubic.hair only-INTENS crackle.crackle.crackle be.hot-REP 'When he pulled it off, threw it into the fire and burned it, his hot pubic hair crackled.' (20101123slicr001)

A piece of evidence in favor of this dichotomy between personal pronouns and medial demonstratives can be found throughout one story, which is about two brothers who are going hunting. The first time that the two brothers, who are the protagonists of this story, are referred to collectively, a form of the medial demonstrative is used, as can be seen in (36) below. After this, the personal pronouns are used to refer to them without exception, as is shown in (37) below. In some cases, it appears that the topicality of a referent can be impeded by a time leap within the story or an interruption of the narration of the speaker, for instance by another narrator. For example, the instance shown in (38) occurs right after a time leap within the story.

(36) hã-i-wa'i sah-te-jã nea-wẽ'jã
DEM.MED-CLS:ANIM.M-PL go-N3S.PST.N.ASS-REP dark-CLS:PLACE
'They went at dawn.' (20100907slicr002)

ĩ-i (37) n<del>i</del>hka-ki jãã-k<del>i</del>-na gahe-ni stand-S.M.PRS.DEP.BI see-S.M.PRS.DEP.BI-DS DEM.PROX-CLS:ANIM.M descend-SS bẽã-ko-hã 'ã kui-sa-o-ni jowi hiho-dao-ki-na wãjũmi be.low-CLS:ANIM.F-PATH swim-go-CAUS-SS canoe push-go-S.M.PRS.DEP.BI-DS anaconda ĩ-i=mo'dudu-na kũ-ni dĩh-ki-jã DEM.PROX-CLS:ANIM.M=toe-GOAL bite-SS remain-2/3S.M.PST.N.ASS.MN-REP 'He watched as the other swam and pushed the canoe, when an anaconda bit his toe.' (20100907slicr002) (38) hã-ih-te-hẽ gũĩ 'ne õhku-a-jũ 'ũ kaa-hi-na DEM.MED-CLS:ANIM.M-OBJ-also then drink-TRS-HORT say-PL.PRS.DEP

goe-<del>i</del>-jã

reject-2/3S.M.PST.N.ASS.BI-REP

'Then later, they told him as well to come drink, but he refused.' (20100907slicr002)

Finally, the discourse deictic use will be briefly considered. Table 22 shows the different forms of the discourse deictics, again grouped by syntactic position in Table 23. As can be seen here, most of the instances of discourse deictic demonstratives, which do not refer to concrete referents but rather to pieces of discourse, have the form *hãmahka*. As was stated before, this form is probably lexicalized and is thus not very interesting for this discussion. After leaving out the all instances of the form *hãmahka*, only four discourse deictic demonstratives are left, which is of course only very few.

morphophonological form	gloss	frequency
ije	DEM.PROX-CLS:GEN	3
hã	DEM.MED-CLS:GEN	1
hãmahka	DEM.MED-CLS:GEN-ADVZ	13
hãmahkahã 'ã	DEM.MED-CLS:GEN-ADVZ-PATH	1

Table 22: frequencies of morphophonological forms of discourse deictic demonstratives

syntactic position	morphophonological form	gloss	frequency
pronominal	ije	DEM.PROX-CLS:GEN	2
	hã	DEM.MED-CLS:GEN	1
adverbial	hãmahka	DEM.MED-CLS:GEN-ADVZ	13
	hãmahkahã 'ã	DEM.MED-CLS:GEN-ADVZ-PATH	1
identificational	ije	DEM.PROX-CLS:GEN	1

Table 23: frequencies of morphophonological forms of discourse deictic demonstratives grouped by syntactic position

There might, however, be an observable pattern here. Two of the three discourse deictic uses of the proximal demonstrative *ije*, one of which can be seen in (39), seem to refer to pieces of discourse within the same sentence, whereas the third instance of *ije*, which is seen in (40), refers to the story as a whole, which means that the story is still conceptually close to the narrator, as the story is still ongoing. The one discourse deictic use of  $h\tilde{a}$ , on the other hand, which can be seen in (41) below, appears to refer to a piece of discourse in an earlier sentence, which means that it might be further away in this sense. However, too few discourse deictic uses have been attested in order to make any substantial claims.

- (39) jihki nee-gwãjo-se'e gũĩ'ne i-je ji'i kaa-se'e jehk-i
  1PL.EXCL do-CAUS-RSTR then DEM.PROX-CLS:GEN 1S say-RSTR other-CLS:ANIM.M mo'se mihsaru-bi ahcha-hi ba-'i-hã'-ko-wa'i-a-'i
  day 2PL-SBJ listen-PL.PRS.DEP be-IMPF-PRP-CLS:ANIM.F-PL-COP-N3S.ASS.COP
  'We did things and I'm telling things, you're listening to this another day.'
  (20150808srocr005)
- (40) ba-'i-hi i-je ojo-bãĩ jo'o-hi ba-'i-se'e
  be-IMPF-3S.M.PRS.ASS DEM.PROX-CLS:GEN bat-person do-PL.PRS.DEP be-IMPF-RSTR
  'This is the story of what the batman did.' (20101123slicr001)
- (41) hã-e kaa-ki sa-kara-ha-hi'i
  DEM.MED-CLS:GEN say-S.M.PRS.DEP.BI go-finish-DUR-3S.M.PST.ASS.MN
  'It went away saying that.' (20151030oalsu001)

### Conclusion

In the present study, an analysis of personal and demonstrative pronouns in Ecuadorian Siona has been provided based on six recordings of short semi-spontaneous narratives. The main purpose of this analysis was to examine pronouns in Ecuadorian Siona with respect to their morphological, syntactic, semantic and pragmatic properties, to verify the accuracy of the preliminary labels that are currently assigned to the three different demonstratives of the language and to investigate whether the language makes a detectable distinction between third person pronouns and demonstratives, which seemingly largely overlap at first sight in Ecuadorian Siona.

To this end, various narrations in Ecuadorian Siona have been analyzed. All attestations of third person pronouns and demonstratives in these narrations, along with all relevant information on these attestations, have been documented, focusing on the morphological marking, syntactic position, pragmatic use and proximity as encoded in the semantics of each form. Based on these documented attestations, connections and interactions between certain forms, functions and grammatical properties have been found.

First of all, it has been found that the labels of the demonstratives  $\tilde{i}$ ,  $h\tilde{a}$  and he, which are labeled as proximal, medial and distal demonstratives, respectively, are adequately appropriate. Based on the exophorically used demonstratives found in the data, one can conclude that the alleged proximal demonstratives tend to refer to referents that are somewhat close to the hearer, whereas medial and distal demonstratives refer to referents that are further away.

Sometimes, but not always, medial demonstratives in Ecuadorian Siona refer to referents that are close to the hearer rather than the speaker. Although this is not necessarily evidence for the analysis of Ecuadorian Siona as a person-oriented or a distance-oriented language or the existence of a distinction between these two types of languages altogether, it is evidence in favor of the analysis of these forms as medial demonstratives.

It should be noted, however, that too few demonstratives, especially distal demonstratives, have been attested to make any definitive conclusions on this matter. In order to further examine this, a great amount of language data of Ecuadorian Siona must be analyzed. These data would then hopefully contain lots of medial and distal demonstratives used in a clear context, so that their referents and the proximity of these referents can be easily determined. The alleged proximal demonstratives, on the other hand, are extremely frequent in the data. If one takes a closer look at the different forms of the proximal demonstratives, an interesting dichotomy can be observed. Some forms of the proximal demonstrative consist of the oral high front vowel, whereas other forms consist of the nasal high front vowel. The forms consisting of the oral vowel almost exclusively refer to inanimate and exophoric referents, while the forms consisting of the nasal vowel refer to animate and anaphoric referents without exception.

This dichotomy motivates the analysis of the former, namely the forms consisting of the oral vowel, as true proximal demonstratives and the latter, namely the forms consisting of the nasal vowel, as third person pronouns, as cross-linguistically, animacy of referents and pragmatic use are often indicators of a distinction between third person pronouns and demonstratives, in that third person pronouns tend to be reserved for animate or anaphoric referents, while demonstratives tend to be reserved for inanimate or exophoric referents.

One can also see that the distinctions between the different levels of proximity are also reflected in anaphorically used and discourse deictic demonstratives. It appears that anaphorically used medial demonstratives are used to refer to less topical referents, which can be contrasted with topical referents, which are consistently referred to using the third person pronouns. It is likely that the discourse deictic use of demonstratives of different levels of proximity is determined by the distance of the respective piece of discourse to the demonstrative that refers to it.

Other findings with respect to the properties of pronouns in Ecuadorian Siona concern various restrictions on the use of pronouns. For instance, in Ecuadorian Siona, pronouns can seemingly not be used recognitionally and only very rarely in adnominal position. These two findings are likely related, as recognitionally used demonstratives can only occur in adnominal position.

An overview of the system of third person pronouns and demonstratives in Ecuadorian Siona can be found in Table 24 below. The possible basic morphophonological forms of each level of proximity are presented for the different syntactic positions and pragmatic uses. The main findings with respect to the forms and functions of the pronouns are summarized in the notes above the morphophonological forms.

proximity		proximal	medial	distal	
	syntactic positions				
note		likely not formally distinct from identificational demonstratives			
pronominal	morphophonological forms	ihki, ihko, ije, ĩõ, ĩ	hã <del>ĩ</del> , hãõ, hã	hehko, he	
	note	restricted to only one form			
adnominal	morphophonological forms	ije	-	-	
note		always marked with a case affix, adverbializer or place/time classifier			
adverbial	morphophonological forms	ĩhã 'de, ihkode	hãdĩ, hãmahka	-	
	note	likely not formally distinct from pronominal demonstratives			
identificational	morphophonological forms	ije	hãĩ	-	
	pragmatic uses				
exophoric	note	refer to nearby	refer to slightly	refer to faraway	
	note	referents	further away referents	referents	
	morphophonological forms	ihki, ihko, ije	hãdĩ, hãĩ	hehko, he	
anaphoric .	note	refer to topical	refer to non-topical	unknown	
	note	referents	referents		
	morphophonological forms	ije, ĩõ, ĩ	hãĩ, hãõ, hã	he	
discourse deictic	note	refer to discourse in the same sentence	refer to discourse in a previous sentence	unknown	
	morphophonological forms	ije	hãmahka, hã	-	

The current study has provided an analysis of pronouns in Ecuadorian Siona. The use of pronouns in this language fits neatly into typological research on pronouns, as the language's

pronouns behave similarly to those of other languages in various ways. For instance, the language has a basic three-way demonstrative system, employs one of its three demonstratives as a third person pronoun, marks gender, number and case on its pronouns and allows pronouns to occur in some syntactic positions or pragmatic uses but not in others.

A limitation to the current study is obviously the lack of sufficient data. This causes some of the questions addressed here to not be answered with full certainty. This mainly concerns the analysis of the labels of the demonstratives. In particular, the labels of the medial and distal demonstratives cannot be assigned with full certainty. For the alleged distal demonstratives, on the one hand, the problem is mostly that they only occurred extremely rarely. For the medial demonstratives, on the other hand, the problem was not necessarily that they occurred extremely rarely, but rather that they occurred too rarely to adequately judge their use and meaning, as the proximity of referents of medial demonstratives can often be somewhat vague, ranging from locations relatively close to the speaker to locations relatively far away from the speaker and locations relatively close to the hearer.

Another limitation concerns the interpretation of the language data. This interpretation can sometimes be difficult, as it is not always clear what referent exactly a pronoun refers to and how far away this referent is from the speaker. This could lead to biases in the interpretation of the data. Follow-up research could deal with this by employing multiple coders for the interpretation of the language data and monitoring their intercoder reliability.

In order to fully understand the use of pronouns in Ecuadorian Siona and in order to see whether the distal demonstrative of the language ceases to be used completely, many more narratives and attestations of pronouns need to be analyzed. Additionally, in order to better understand the possible properties that pronouns can have in languages around the world and in order to test the current typology of pronouns, the use of pronouns needs to be thoroughly analyzed in more languages. Follow-up research should be dedicated to these issues, as this will hopefully help to understand the intricate ways in which personal and demonstrative pronouns behave, both individually and in relation to each other.

## **Glossing abbreviations**

1 = first person	IMPF = imperfective aspect
2 = second person	INCL = inclusive
3 = third person	INT = interrogative
ADVZ = adverbializer	INTENS = intensifier
ANIM = animate	M = masculine
ASS = assertive	MED = medial
BEN = benefactive	MN = monomoraic
BI = bimoraic	N.ASS = non-assertive
CAUS = causative	N3 = non-third person
CLS = classifier	NEG = negative
CMP = completive	NLZ = nominalizer
COL = collective	OBJ = object marker
COM = comitative marker	PATH = path marker
COP = copula	PL = plural number
DEM = demonstrative	PLACT = pluractional
DEP = dependent	PROX = proximal
DIM = diminutive	PRP = purposive
DIST = distal	PRS = present tense
DS = different subject	PST = past tense
DUR = durative aspect	REM.PST = remote past tense
EV = event	REP = reportative
EXCL = exclusive	RSTR = restrictive
EXIS = existential	s = singular number
F = feminine	SBJ = subject marker
GEN = general	ss = same subject
GOAL = goal marker	TOP = topic marker
IMP = imperative mood	TRS = transitivizer

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