

NOMINAL CLASSIFICATION WITHOUT GRAMMATICAL AGREEMENT: EVIDENCE FROM SECOYA¹

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This paper aims to demonstrate two things. First, Secoya (Tukanoan) has gender markers and shape classifiers. However, unlike other Tukanoan languages, Secoya does not display grammatical agreement, either between the head noun and its modifiers within a noun phrase or between the predicate and its arguments within a clause. Gender markers and shape classifiers are used in antecedent-anaphor relations. They appear in pronominal forms, demonstratives, and numerals to differentiate referents, playing a role in the way discourse is constructed and maintained. Second, a corpus study reveals that some traces of agreement might be emerging; however, it is currently restricted to one specific context, and there is significant speaker variation. Thus, Secoya is in a privileged position to inform debates regarding the mechanisms that may have given rise to complex classification systems in Northwest Amazonia, providing the missing link to understanding the interesting ways in which these different systems are related.

[KEYWORDS: Secoya, nominal classification, agreement, Tukanoan languages, Amazonia]

Tukanoan languages are generally described as having pervasive grammatical agreement between nouns and their modifiers (cf. Gomez-Imbert 2007:403). Secoya (Western Tukanoan, ISO: sey) differs from this characterization in significant ways. The language has formal mechanisms to categorize nominal referents according to gender and shape; however, both gender markers and shape markers are used primarily for anaphoric agreement. In other words,

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Secoya has nonagreeing gender and classifier systems. Consider the following examples:²

- (1) *hã* *dʒari* *dʒo-wi*
 DEM.PROX small canoe-CLF.CONT
 ‘That small canoe’
- (2) *kaɖʒa* *dʒari* *dʒo-wi-ã*
 two small canoe-CLF.CONT-PL:INA
 ‘Two small canoes’

As seen in (1) and (2), Secoya does not exhibit grammatical agreement, as defined by Siewierska (1999), or canonical agreement, as defined by Corbett (2006). Neither shape nor gender markers are required in modifiers within the noun phrase, whether these are demonstratives, adjectives, or numerals. The word *dʒo* ‘canoe’ has the classifier *-wi* ‘container’, yet no reference to shape appears on the demonstrative *hã* ‘that,’ the adjective *dʒari* ‘small,’ or the numeral *kaɖʒa* ‘two.’ Example (3) shows a similar pattern with nouns with lexical gender:

- (3) *hã* *nomio*, *hã* *ĩmi*
 DEM.PROX woman DEM.PROX man
 ‘That woman, that man’

As seen in (3), gender markers do not appear on the demonstrative when they are the modifiers of nouns that make reference to a man or a woman.

Secoya also lacks grammatical agreement at the clause level. Grammatical relations are encoded via case marking and person indexation; however, the nominal instantiation of arguments is optional, as shown in (4):

² Abbreviations: 1 = first person, 2 = second person, 3 = third person, ACC = accusative, ALL = allative, COP = copula, CAU = causative, CLF.CLOTH = classifier cloth, CLF.CONT = classifier container, CLF.CYL = classifier cylinder, CLF.GEN = classifier generic, CLF.GRN = classifier grain, CLF.FIL = classifier filiform, CLF.NET = classifier net, CLF.RIV = classifier river, CLF.SPH = classifier sphere, CLF.TREE = classifier tree, COLL = collective, CPL = completive, DE = direct evidence, DEM.DIST = demonstrative distal, DEM.MED = demonstrative medial, DEM.PROX = demonstrative proximal, DEP = dependent verb, DIM = diminutive, DS = different subject, DUR = durative, EMP = emphasis, F = feminine, FOC = focus, GEN = gender, IE = indirect evidence, IMP = imperative, INA = inanimate, IPFV = imperfective, LOC = locative, M = masculine, NOM = nominative, N3SG = non-third-person singular, N2/3SG = non-third-or-second person singular, NZR = nominalizer, PER = perlativity, PFV = perfective, PL:ANI = plural animate, PL:INA = plural inanimate, REM = remote past, REP = reportative, RES = restrictive focus, SG = singular, SS = same subject.

- (4) (a) tōme-ãʔ-ki-ña
 fall-REM-3SG:M:IE-REP
 ‘He fell down a long time ago’
- (b) tōme-ãʔ-ko-ña
 fall-REM-3SG:F:IE-REP
 ‘She fell down a long time ago’

Examples in (4) illustrate typical sentences in connected speech. In (4a), the subject is expressed via *-ki*, in (4b), via *-ko*. Given that person suffixes express arguments on their own, these markers do not technically agree with any other element within the clause. In sum, Secoya gender markers and shape markers are not used in canonical agreement. As will be demonstrated in this study, they participate primarily in anaphoric reference, reference tracking in discourse, and lexicogenesis.

The remainder of the paper is organized as follows. **1** offers a brief introduction to the Secoya language and the people who speak this language. **2** introduces the basic concepts relevant to this paper, namely, agreement and nominal categorization. **3** places the Secoya case among the Tukanoan languages, highlighting some potential implications for the study of nominal classification within this family. **4** discusses the morphosyntactic constructions in which the gender and shape markers show up. **5** explores specific areas where grammatical agreement might be emerging. These involve the numeral ‘one’ and the set of demonstratives. **6** offers some closing remarks.

1. The Airo Pãi people and the Secoya language. The Airo Pãi ‘People of the Forest’ live in Peru and Ecuador, in Northwest Amazonía. In Peru, they live in nine villages located in the Loreto region. Seven communities are distributed along the Yubinetto, Angusilla, and Yaricaya creeks, tributaries of the Putumayo River. There is a small village, Vencedor Wajoya, in the Santa María creek in the Napo River, and Puerto Estrella within the Güeppi-Sekime National Park (figure 1).

The Secoya population in Peru is estimated at 700. According to the more recent Peruvian census (INEI 2017), 638 declared having learned Secoya as a first language. In 1941, during the Peru-Ecuador conflict, a small group of Secoyas migrated toward Ecuadoran territory. In 1973, missionaries from the Summer Institute of Linguistics encouraged approximately 50 Secoyas, most of them relatives of those who traveled during the war, to migrate to the Aguarico River in Ecuador. The approximately 300 Secoyas that presently reside in Ecuador originated from these two events (Chirif Tirado 2007:21–22).

Secoya belongs to the Tukanoan linguistic family, which consist of about 21 languages (Chacon 2014) currently spoken in Brazil, Colombia, Ecuador, and

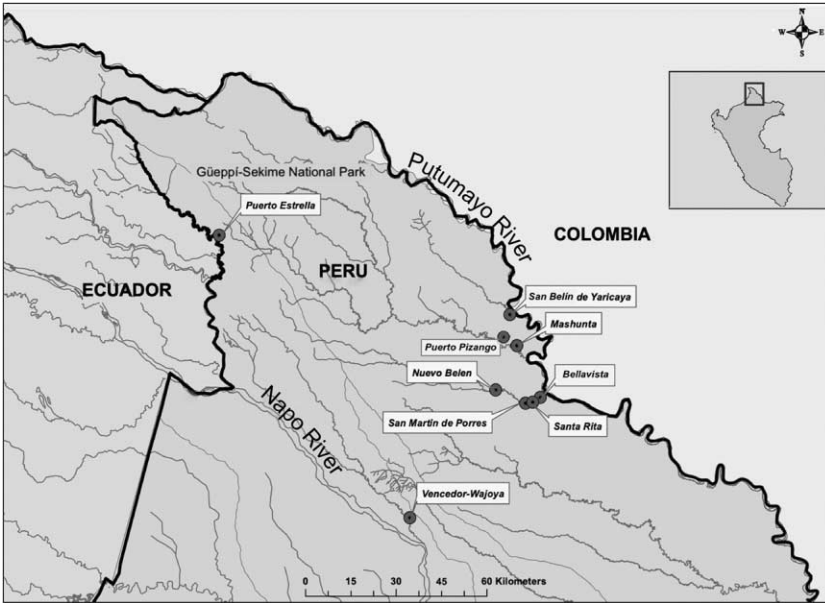


FIG. 1.—Secoya villages in Peru

Peru. Secoya is one of the four living languages in the Western branch spoken mostly in the Ecuador-Peru-Colombia border region. The linguistic literature on Secoya is very limited, and most of that literature focuses on Ecuadoran Secoya.³ Ecuadoran Secoya has been considerably influenced by a neighboring Tukanoan language called Siona (Schwarz 2014), to the point that the United Nations Educational, Scientific and Cultural Organization (UNESCO) currently lists Siona-Secoya as a single language. Based on data from Ecuadoran Secoya, Bruil (2014:12) suggests a Siona-Secoya dialect continuum. The only current documentation and/or description of Peruvian Secoya is my own work (Vallejos 2013a, 2013b; Vallejos and Brown 2021). However, the variety of Secoya spoken in Peru differs in some ways from the variety spoken in Ecuador (Vallejos 2013a). Because the Secoyas in Peru have remained mainly isolated given their remote geographic location, the present study can

³ Fieldwork on Ecuadoran Secoya was conducted by Summer Institute of Linguistics missionaries between 1955 and 1960 (Johnson and Peeke 1962:78n1). Johnson and Peeke (1962) provides a phonological analysis; Johnson and Levinsohn (1990) is a grammatical sketch; Piaguaje et al. (1992) is a glossary. More recent efforts to document and study Ecuadoran Secoya are being led by Schwarz (2014, 2018).

contribute to our understanding of the source of linguistic features considered language contact phenomena, as well as to the internal classification of the Western Tukanoan branch of the family.

With respect to typological profile, Secoya is a head final language with a certain amount of flexibility in constituent ordering. It is primarily suffixing and exhibits moderate agglutination and fusion. Secoya obligatorily marks verbs for person, number, and gender of subject, as well as tense, aspect, and evidentiality. Evidential marking distinguishes direct evidence from indirect evidence. It also makes use of a tail-head linkage system and switch reference strategies. Case marking is not obligatory but is driven by pragmatic considerations. Secoya has laryngealized consonants [p̥, k̥, t̥] that occur in word initial position, as in *paʔi* ‘to live’, *k̥nawi* ‘bottle’, and *t̥siaɖa* ‘river.’

The data presented here is drawn from fieldwork I have conducted in Secoya communities in Peru in 2012, 2017, and 2018. The corpus comes from a total of 26 speakers (9 females, 17 males) and consists of 14,580 words of personal narratives, traditional stories, written texts, elicited sentences, and structured elicitation using four types of stimuli.⁴ The data have been compiled and analyzed with Fieldworks Language Explorer, FLE_x (Black and Simons 2008).

2. Nominal classification and agreement. Nominal classification devices denote some salient, perceived, or imputed properties of noun referents and can occur in several morphosyntactic loci. Allan (1977:287) identifies four classification types according to their loci: numeral classifiers, which are required in quantificational expressions but also appear in anaphoric and deictic contexts; concordial classifiers, which are affixed to nouns, modifiers, predicates, and proforms as markers of agreement or noun class; predicate classifiers, which appear on the verb depending on the object participant; and intralocative classifiers, which show up in locative expressions that obligatorily accompany nouns in most environments. Most current typologies follow Allan’s classification in that they are primarily based on the morphosyntactic loci in which the markers occur (e.g., Aikhenvald 2000; Grinevald 2000, 2015).

The categorization of referents in a given language can be achieved by multiple, often overlapping, strategies. Consider the following examples from Tanimuka, an Eastern Tukanoan language spoken in Colombia (Eraso 2019:3–4):

- (5) (a) *iʔ-kí* *běʔěr-í* *hóʔba-kí*
 DEM-M kid-M big-M
 ‘This big boy’

⁴ The stimuli used include video clips (Ishibashi, Kopecka, and Vuillermet 2006), picture series (Ameka, De Witte, and Wilkins 1999), story cards (Amias et al. 2003), and a guide to Amazonian flora and fauna.

- (b) *iʔ-kó* *běʔēr-ó* *hóʔba-kó*
 DEM-F kid-F big-F
 ‘This big girl’
- (c) *iʔ-ká* *jābá-ká* *hóʔba-ká*
 DEM-N deer-N big-N
 ‘This big deer’

Examples (5a–c) illustrate a typical gender system. Every noun in Tanimuka belongs to one of three classes: feminine, masculine, or neuter. The modifiers take a marker that matches the class of the noun. However, example (6) shows that a different set of forms show up in quantifiers.

- (6) *íʔa-bí* *ʔùákà-ká* *jí-re* *bí-ihí-bé*
 two-CLF.LONG arrow-N 1SG-DAT 2SG-give-IMP
 ‘Give me two arrows’

In (6), the suffix *-bí* attached to the numeral *íʔa* ‘two’ makes reference to the long shape of the noun *ʔùákà* ‘arrow.’

The fact that different sets of categorization devices can coexist in a single language has raised the question of whether we are dealing with multiple systems of classification (see, for example, Dixon 1986; Grinevald 2000; Aikhenvald 2000) or whether they are essentially parts of a single system (Seifart 2005; Gomez-Imbert 2007; Fedden and Corbett 2017). In Seifart’s (2005) view, they are essentially the same; gender-like systems encode general classes, whereas numeral-like classifiers encode more specific classes. This approach has been followed in describing Western Tukanoan languages such as Siona (Bruil 2014) and Máihiki (Farmer 2015), close sisters of Secoya. Other Eastern Tukanoan languages described as having specific shape classifiers and more general gender-like classifiers include Tatuyo (Gomez-Imbert 2007), Kotiria (Stenzel 2013), and Desano (Silva 2012). Nevertheless, there seems to be a consensus that classificatory elements vary significantly along the dimension of grammaticalization, with gender-like systems at one end of the spectrum and elements with more transparently lexical origins, such as numeral classifiers, closer to the other. It has been suggested that Northwest Amazonian classification systems are in fact at an early stage of grammaticalization (Grinevald and Seifart 2004), though other research has indicated that they instantiate a coherent system type in their own right (Seifart and Payne 2007:384). As shown in 4, Secoya has both specific shape classifiers and gender markers. While they overlap in some morphosyntactic constructions, their distribution is not identical, which suggests that we are dealing with two systems that complement each other.

Agreement plays a key role in the study of classification systems. In fact, grammatical agreement is considered a definitional feature of the gender-type classification system (Allan 1977; Aikhenvald 2000; Grinevald 2000; Seifart

and Payne 2007). Grammatical agreement occurs when a change in one linguistic unit necessarily causes a change in another linguistic unit (Lehmann 1982; Corbett 2006). The term “agreement” is often used to cover feature matching in a range of domains, from noun phrase (NP) internal phenomena to antecedent-anaphor relations. The literature on agreement talks about grammatical agreement versus anaphoric agreement, NP internal versus NP external agreement, sentence internal versus sentence external agreement, and local versus anaphoric agreement (Lehmann 1982; Siewierska 1999, 2003). Nevertheless, as Corbett (2003:117) notes, there is no principled method for establishing any of the aforementioned two-way splits of the agreement domain.

Grinevald (2000:56) characterizes gender systems as more or less extensive systems of agreement. According to Aikhenvald (2000:20), in noun class/gender systems, “some constituent outside the noun itself must agree in noun class with the noun. Agreement can be in other words in the noun phrase (adjectives, numerals, demonstratives, articles, etc.) and/or with the predicate of the verb or with an adverb.” Nevertheless, as Nichols (1989) reports, there is significant variation from language to language with respect to what contexts, parts of speech, or construction types require agreement. More important, there are languages with nonagreeing classifiers.

Corbett (2006) proposes the notion of canonical agreement as a reference point to facilitate comparisons across systems. The element that determines the agreement is called the *controller*, and the element whose form is determined by agreement is the *target*. In Corbett’s canonical agreement model, the controller is present, has overt expression of features, and is consistent in the agreement its targets take. The target has a single controller and obligatory marking, copying the values of the noun. The syntactic domain of agreement can be variable, but there are no choices in values (Corbett 2006:9). For example, if a controller is neuter, it will be neuter in any domain. The Tanimuka examples in (5a–c) illustrate canonical agreement, which encompasses gender *features* with specific values, such as masculine, feminine, and neuter. In (5a–c), the controllers are the nouns *bē?ēri* ‘boy’, *bē?ēró* ‘girl’, and *jābá* ‘deer’; the targets are the demonstrative *i?* and the adjective *hó?ba* ‘big’. The *domain* is the noun phrase.

3. Nominal classification within the Tukanoan family. Tukanoan languages are well known for having nominal classification and are often characterized as being complex and challenging for the typology of nominal classification (Grinevald 2000:83; Grinevald and Seifart 2004). Barnes’s (1990) comparative work recognizes shape classifiers but not gender classes throughout the family. However, most Tukanoan languages actually have both shape and gender systems (Gomez-Imbert 2007). The typological complexity emerges from the distribution of the classification devices in different morphosyntactic environments and from the copresence of gender-like agreement systems and numeral-like systems (Derbyshire and Payne 1990:246). Some

of the well-documented systems include Tatuyo (Gomez-Imbert 1982, 2007), Barasana (Gomez-Imbert 2007), Tuyuca (Barnes 1990), Desano (Miller 1999), Tanimuka (Eraso 2015), Kubeo (Chacon 2012), Kotiria (Stenzel 2013), Siona (Wheeler 1987; Bruil 2014), and Máihiki (Farmer 2015).

Most of these languages have been described as having some sort of agreement. For example, Gomez-Imbert (2007:3) states that a salient characteristic of nominal classification in Tukanoan languages is pervasive agreement. For Tatuyo, the author writes that “noun phrase agreement is syntactically simple because it has no exceptions: it targets all modifiers of the noun controller in a noun phrase” (2007:405). Gomez-Imbert (2007:425) goes on to compare Tatuyo with African languages in which every noun belongs to a class, and this constraint is absolute. Anaphoric uses of the classifiers also seem to be common in Tatuyo. Gomez-Imbert (2007:414) explains that the head noun appears to introduce a participant, and it appears again in situations of ambiguity or emphasis. Another highly grammaticalized agreement system is found in Tanimuka, as we saw in example (5). Within NPs, the head and the dependents of the NP are obligatorily marked (Eraso 2015:325).

The situation in other Tukanoan languages is more nuanced, and establishing the antecedent-anaphor relation, rather than grammatical agreement, seems to be the primary function of classifiers. In Kotiria, the inherent classificatory features of the head noun (overtly coded or merely implicit) are morphologically marked on the determiner only when the noun is first introduced. Stenzel (2013:145) explains that to refer to the entity in subsequent mentions, “the deictic morpheme and the classifier function as pronouns.” Barnes (1990) documents a parallel behavior in Tuyuca, where a head noun does not appear in each sentence that contains a classifier. In fact, noun phrases in which both the head and its modifiers are marked with a classifier are not common in Tuyuca (Barnes 1990:298). For Kubeo, Chacon (2012) indicates that the use of classifiers depends on the type of determiner. While the proximal demonstrative generally agrees with the classifier, the distal demonstrative usually “does not show agreement with the head noun” (Chacon 2012:329). In sum, in Kotiria, Tuyuca, and Kubeo, there is both grammatical agreement and anaphoric agreement, the latter being the more prominent pattern.

As for the languages in the Western Tukanoan branch closer to Secoya, Bruil (2014) claims that in Ecuadoran Siona, classifiers carry out agreement between the head and its modifiers within the noun phrase; however, when any modifier—numeral, demonstrative, adjective and nominalized verb—takes a nominal classifier, it becomes a noun and so does not need to occur with a nominal head. The dominant pattern is for the classifier-marked forms to operate as noun phrases on their own (Bruil 2014:137). This use of classifiers in Siona parallels what we see in Secoya, as will be shown in 4.

Another language in the Western Tukanoan branch is Máihiki. Farmer (2015:120) states that noun classification of this language has the definitional

properties of both a gender system (i.e., agreement within the noun phrase) and a numeral classifier system (i.e., obligatory marking on numerals). Farmer goes on to explain that a head noun acts as the controller, triggering specific class agreement on adjectival, numeral, demonstrative, or relative clause modifiers. She provides one example (2015:161) but clarifies that phrases with two elements bearing the same classifier are exceedingly rare in natural discourse. In other words, in Máihiki, anaphora is the primary function of classifiers.

To summarize this section, agreement in Tukanoan languages is far from a constant property of determiners and numerals within noun phrases. The only constant seems to be that the use of classifier morphology is predominately relegated to anaphoric contexts. Secoya's nominal classification system parallels closely with the patterns in other Western Tukanoan languages, although it differs in other ways, as discussed in the following section.

4. The grammar of Secoya nominal classification. Secoya is sensitive to the animacy, gender, and physical properties of entities in several aspects of its grammar, including grammatical number, deictic expressions, person indexation in the verb, and locative expressions (Vallejos and Brown 2021). In this paper, the focus is on the grammar of both gender and shape classification systems. These are separate systems, each with its own semantics and distributional properties.

The strongly preferred pattern in noun phrases is for the head noun to occur in final position. As shown in the examples in (7), modifiers within noun phrases do not take gender or shape markers of any kind.

- (7) (a) i / hã dʒo-wi
 DEM.PROX / DEM.MED canoe-CLF.CONT
 'this/that canoe'
- (b) dʒi / mi dʒo-wi
 1SG / 2SG canoe-CLF.CONT
 'my/your canoe'
- (c) haʔki / nomio dʒo-wi
 dad / woman canoe-CLF.CONT
 'dad's/the woman's canoe'
- (d) hai / deo dʒo-wi
 big / beautiful canoe-CLF.CONT
 'big/nice canoe'
- (e) te / kadʒa / toatsõ dʒo-wi
 one / two /three canoe-CLF.CONT
 'one/two/three canoe(s)'

In (7), there is no number or gender agreement between the head noun and its dependents, whether these are demonstratives (7a), pronouns (7b), nouns (7c), adjectives (7d),⁵ or numerals (7e) or whether the head noun is inanimate or animate. Note also that plurality is generally left unexpressed on the head noun if the modifier is a numeral higher than two. Two modifiers can co-occur, as seen in (1) and (2) above, but this is not a frequent pattern in the corpus.

The lack of grammatical agreement also applies to adnominal possessive constructions in which the possessor is expressed by a pronoun marked by gender (8).

- (8) \tilde{i} -o \tilde{i} hi-pi ite-hue-ki
 3SG-F husband-NOM wait-long.time-2/3SG:M:IPFV:IE
 ‘Her husband waits for a long time’

In (8), the pronoun \tilde{i} takes the feminine marker $-o$ making anaphoric reference to the possessor rather than agreeing with the head of the noun phrase, ‘husband’.

The main bifurcation in Secoya nouns is between animates and inanimates and among animates between female and male. Inanimate entities are further classified according to shape. However, female, male, and inanimate nouns are merged in different ways in specific morphosyntactic constructions (figure 2).

Figure 2 shows that, in demonstratives and numerals, male/female/inanimate referents are marked by masculine/feminine/shape suffixes, respectively. In verbs, however, female and inanimate referents are merged into the feminine category, while male referents are marked with the masculine gender. In the plural marking construction, the female and male are merged in the animate category. Further, the gender feature is neutralized in the plural construction, as every animate noun must be marked by the feminine marker in order to be pluralized. In contrast, inanimate referents remain as their own category and take the inanimate plural suffix.

The following subsections provide an overview of the gender markers (4.1) and the shape classifiers (4.2) and demonstrate that they do not participate in grammatical agreement between modifiers and head nouns or between arguments and predicates. There is a generic marker that shows overlapping distribution with gender markers and shape classifiers (4.3). In Secoya, the numeral ‘one’ and the demonstratives display interesting patterns of variation, which suggests incipient grammatical agreement, and as such they merit their own section (5).

⁵ The adjective category is problematic in Tukanoan languages. Gomez-Imbert (2007:424) asserts that Tukanoan languages have no adjectives; however, a small set of adjectives has been identified in some Tukanoan languages (see, for instance, Chacon 2012:304 for adjectives in Kubeo).

DEMONSTRATIVES/NUMERALS		VERBS		PLURAL MARKING	
ANTECEDENT	ANAPHOR	ANTECEDENT	ANAPHOR	ANTECEDENT	ANAPHOR
male	— masculine	male	— masculine	male	— animate
female	— feminine	female	— feminine	female	— inanimate
inanimate	— shape classifier	inanimate	—	inanimate	— inanimate

FIG. 2.—The interaction of gender, shape, and animacy in various morphosyntactic environments

4.1. Gender markers. *Gender* is a complex socioculturally constructed classification often based on biological differences between males and females (McConnell-Ginet 1988). In Secoya, genderless nominal roots with human referents are specified for gender by means of the suffixes *ki/i* ‘male’ and *ko/o* ‘female’, as seen in table 1.⁶ Nouns with animal referents almost never take gender suffixes, except in traditional stories, where animals are represented with anthropomorphic features.

It is important to note that the female/male distinctions hold only in the singular. In plural constructions, nouns are suffixed by the feminine marker before taking the plural suffix, regardless of the gender configuration of the group (see 4.4). In Secoya, gender classes primarily condition person indexes on finite verbs (4.1.1), on dependent verbs and nominalized verbs (4.1.2), and on numerals and demonstratives (4.1.3).

4.1.1. Gender markers on finite verbs. The language has both person indexes and case marking to code the arguments of the clause. Given that the nominal instantiation of arguments is optional in Secoya, something common in languages with person indexation of verbal arguments (Haspelmath 2013, 2019:100), the claim here is that the person suffixes express arguments on their own—that is, they are not agreement markers between the arguments and the predicate. In Secoya, subject markers in finite verbs are organized in two main groups according to evidentiality and epistemic strength. The forms used for direct evidence/full epistemic strength are given in table 2 and for indirect evidence/neuter epistemic strength in table 3.⁷

In the person paradigms for direct evidence (table 2), the language specifies gender only for third-person singular. The second-person feminine singular –*koʔi* is often instantiated as –*koʔu* or –*kou*. In the paradigm for indirect evidence (table 3), the gender distinction applies to both second- and third-person singular.

Whether or not the subject argument is explicitly instantiated in the clause (via noun phrases, demonstratives, or pronouns), the gender of the referent is

⁶ The gender markers exhibit allomorphy that may have a diachronic explanation, which is beyond the scope of this paper.

⁷ Following Bruil’s (2018) analysis for Siona, the two perfective paradigms are analyzed as the bimoraic verb paradigm and monomoraic verb paradigm (cf. *i*-verbs, Schwarz 2018).

TABLE 1
GENDER IN NOUNS WITH HUMAN REFERENTS

ROOT	GLOSS	SG	GLOSS
<i>mama-</i>	‘child’	<i>mama-ki</i>	‘son’
		<i>mama-ko</i>	‘daughter’
<i>haʔ-</i>	‘parent’	<i>haʔ-ki</i>	‘father’
		<i>haʔ-ko</i>	‘mother’
<i>ʕĩ-</i>	‘offspring’	<i>ʕĩw-i</i>	‘boy’
		<i>ʕĩw-o</i>	‘girl’
<i>ñeko-</i>	‘grandparent’	<i>ñekw-i</i>	‘grandfather’
		<i>ñeko-o</i>	‘grandmother’

TABLE 2
SUBJECT MARKERS IN DIRECT EVIDENCE

	IMPERFECTIVE	PERFECTIVE (bimoraic verbs)	PERFECTIVE (monomoraic verbs)
3 SG:M	<i>-hi</i>	<i>-pi</i>	<i>-hiʔi</i>
3 SG:F	<i>-ko</i>	<i>-o</i>	<i>-koʔi</i>
NON 3SG	<i>-dʒi</i>	<i>-wi</i>	<i>-iʔi</i>

TABLE 3
SUBJECT MARKERS IN INDIRECT EVIDENCE

	IMPERFECTIVE	PERFECTIVE (bimoraic verbs)	PERFECTIVE (monomoraic verbs)
2/3 SG:M	<i>-ki</i>	<i>-i</i>	<i>-ki</i>
2/3 SG:F	<i>-ko</i>	<i>-o</i>	<i>-ko</i>
NON 2/3SG	<i>-dʒe</i>	<i>-re</i>	<i>-dʒe</i>

cross-indexed in the verb. Humans and animal subjects are assigned person markings according to biological sex, as in (9) and (10).

- (9) *dʒi mama-ko-pi paʔi-ko Ecuador-re*
 1SG child-F-NOM live-3SG:F:IPFV:DE Ecuador-LOC
 ‘My daughter lives in Ecuador’

- (10) *dʒi mama-ki-pi paʔi-hi Ecuador-re*
 1SG child-M-NOM live-3SG:M:IPFV:DE Ecuador-LOC
 ‘My son lives in Ecuador’

In (9) and (10), the subject, daughter/son, controls the person indexes *-ko/-hi*, respectively, in the imperfective aspect. Examples (11) and (12) illustrate the cross indexation of the subject argument in the verb in the perfective aspect.

- (11) *hã-pi kuriki-re ïtsi-pi nomio-re*
 DEM.PROX-NOM money-ACC give-3SG:M:PFV:DE woman-ACC
 ‘He gave money to the woman’

- (12) *Edit ã?so kôdo-re û?ku-a-o pika*
 Edit yucca drink-ACC drink-CAU-3SG:F:PFV:DE own
ha?-ki-re
 parent-M-ACC
 ‘Edit gave yucca beer to her father’

In addition to perfective aspect and direct evidence, in (11) *-pi* indicates that the subject is masculine, and in (12) *-o* indicates that the subject is feminine. Example (13) demonstrates the optionality of the subject phrase; the masculine interpretation of the subject arises from the marker *-hi* in the predicate.

- (13) *i-do?ro-wi-na adza-hi*
 DEM.PROX-basket-CLF.CONT-ALL put.in-3SG:M:IPFV:DE
ãi-ka-maňa-re
 eat-CLF.GRN-DIM:PL-ACC
 ‘He puts these little grains in this basket’

If the gender of an animal is unknown, it is assigned feminine person index, as shown in (14). However, if the gender of the animal is known, as in (15), it is marked accordingly. Animals can also be given masculine marking if they are portrayed with anthropomorphic features in traditional stories. Human and animal body parts take only feminine marking.

- (14) *đzari đzai tsao kati-o*
 small dog already go.away-3SG:F:PFV:DE
 ‘The small dog has escaped’

- (15) *tsême đzaka-wi-re tĩa-ri đzai kôke-hi*
 paca hole-CLF.CONT-ACC find-SS dog dig-3SG:M:IPFV:DE
 ‘Having found the paca’s nest, the dog digs’

Inanimates are also assigned feminine person indexes, as shown in (16) and (17).

- (16) *đzi đzo-wi wetsi-o*
 1SG canoe-CLF.CONT disappear-3SG:F:PFV:DE
 ‘My canoe disappeared’

TABLE 4
SUBJECT MARKERS IN DEPENDENT VERBS

	IMPERFECTIVE	PERFECTIVE (bimoraic verbs)	PERFECTIVE (monomoraic verbs)
SG:M	-ki	-ĩ	-ki
SG:F	-ko	-o	-ko
PL	-hĩ	-re	-te

- (17) toɖʒa-tara-pi-pi paʔi-ko ɖʒari
 write-stick-CLF.CYL-NOM to.exist-3SG:F:IPFV:DE small
 turu-pi-re
 sack-CLF.CYL-LOC
 ‘The pencil is in the small pencil pouch’

4.1.2. Gender markers on nonfinite verbs. In addition to finite verbs, Secoya also makes gender distinctions on dependent verbs and nominalized verbs. The paradigm employed on dependent verbs is given in table 4. The feminine and masculine morphemes are identical to the forms for indirect evidence (table 3). However, the markers in table 4 only encode gender; they apply to all feminine/masculine singular subjects regardless of person. Dependent verbs are used in clause chains with switch reference markers (18), a very productive construction in Secoya.

- (18) ɖʒiʔi-pi tsōki-ɖʒi-hã ĩmi miʔ-ri
 1SG:EMP-NOM tree-CLF.TREE-PER high go.up-SS
 tōme-ki-na ăi-hĩʔi
 fall-DEP:SG:M-DS eat-IMP
 ‘(When) I climb up the tree, and then fall, eat me.’

Example (18) comes from a traditional story in which a turtle and a tiger are fighting to eat each other. The turtle is encoded by the masculine form *-ki* in the dependent verb ‘fall,’ which is followed by *-na*, the switch reference marker that indicates that the subject of the next verb is a referent other than the turtle.

Examples (19)–(21) illustrate the use of gender markers as nominalizers in three different morphosyntactic environments. Again, note the similarity between the form of the nominalizers and the subject markers in tables 3 and 4.⁸

⁸ For the diachronic connection between subject markers in finite verbs, dependent verbs, and nominalizations in Western Tukanoan languages, see Bruil (2018).

- (19) *kãʔko-kã-pi doʔro-wi-re*
 fabric-CLF.CLOTH basket-CLF.CONT-LOC
ha-tsi-ko-a-ø
 spread.out-CPL-NZR:F-COP-3SG:F:DE
 ‘A piece of fabric is spread out on the basket’
- (20) *pãi-pi hãi-ni wero-tsi-ki-pi*
 person-NOM hammock-CLF.NET buy-CPL-NZR:M-NOM
ñui-hi
 sitting-3SG:M:IPFV:DE
 ‘The man that bought the hammock is sitting’
- (21) *koa-mañã ne-ko-waʔi-pi Roman gasolina-re*
 task-DIM:PL do-NZR:F-PL:ANI-NOM Roman gasoline-ACC
ĩtsi-wi
 give-N3SG:PFV:DE
 ‘The workers (lit. who do little tasks) gave Roman gasoline’

Example (19) shows a nominalized verb in a copula construction predicating a location. In this construction, the verb ‘spread out’ is marked by the feminine nominalizer *-ko* to indicate the disposition of *kãʔko* ‘fabric’. In (20), the verb *wero* ‘buy’ is suffixed with the completive aspect and the masculine nominalizer *-ki* before taking the nominative marker. In other words, the verb ‘buy’ nominalized by *-ki* together with its object ‘hammock’ operates as an appositive noun phrase that specifies the gender of the subject *pãi* ‘person.’ An additional grammatical construction in which gender markers play a role is argument nominalization (21). In (21) ‘worker’ is derived from ‘do’ via the nominalizer *-ko*, which is then pluralized. Argument nominalization via *-ko/-ki* gender markers is a productive derivational strategy in Secoya.

In sum, Secoya gender markers on finite verbs and nonfinite verbs contrast male versus non-male referents, as all the non-male referents, including inanimate entities, take feminine marking.

4.1.3. Gender markers on numerals and demonstratives. In the corpus, one of the most common environments for the gender markers *-ko/-ki* is suffixed to numerals and demonstratives to make anaphoric reference to previously introduced participants. This is illustrated in (22)–(24).

- (22) *Javin-pi toatsõ-ko-waʔi-re, dʒe-ki-pi*
 Javin-NOM three-F-PL:ANI-ACC DEM.other- M-NOM
teʔ-i-re
 one-M-ACC
hãnehẽ-tse wa-ãʔ-hĩʔĩ
 like.that-RES kill-REM-3SG:M:DE
 ‘Javin killed three [peccaries], the other [hunter] only one’

- (23) *dʒe-ko-waʔi-pi* *koa* *hatso-tso-hĩ-na*
 DEM.other-F-PL:ANI-NOM eager shoot-CPL-PL:IPFV-DS
 ‘The other guys shoot eagerly’
- (24) *he-ko-waʔi-pi* *wero-wi*
 DEM.MED-F-PL:ANI-NOM buy-N3SG:PFV:DE
 ‘They/those guys bought it’

In the context for (22), the speaker is narrating a personal story about an incident that happened while trying to hunt peccaries. In this utterance, *-ko* attached to the numeral ‘three’ refers to *šẽšẽ* ‘peccary’, and *-ki* attached to the demonstrative *dʒe* refers to a hunter, both introduced in the previous discourse. In (23), the demonstrative *dʒe* is marked by the gender marker *-ko* and then by the plural marker for animates to make reference to a group of hunters. Note that when referring to a group of people the default gender marker is the feminine *-ko/-o*, regardless of the composition of the group. This is further illustrated in (24); *-ko* is suffixed to the distal demonstrative followed by the plural marker for animates to make reference to a group of people. I analyze the resulting constructions in (22)–(24) as nominalizations from numerals and demonstratives because they create or build reference and take the syntactic slot of noun phrases in utterances. In this analysis, gender markers on demonstratives and numerals are operators that convert the base into a nominal word (Lehmann 2010:435) and thus can be pluralized. I come back to the interaction of gender, animacy, and plural marking in 4.4.

4.2. Shape-specific classifiers. Shape, a physical property of objects, has been found to play a crucial role in object recognition, visual processing, and language acquisition (Seifart 2005). For example, shape allows us to predict the nature of an object more than any other property (Palmer 1999). Following Seifart (2005:182), shape includes dimensionality (one, two, three dimensions), axial geometry (long, thick, wide), curved versus straight edges, negative spaces (hollow/solid), and orientated axis (pointedness). Johnson and Levinsohn (1990:28–30) document 17 shape classifiers in Ecuadoran Secoya, all of which are found in Peruvian Secoya. Seven additional markers have been identified in the corpus for this study, highlighted with (♦) in table 5. In addition to the morphemes in table 5, Secoya has several less grammaticalized forms that could be considered class terms, generic elements of clear lexical origin that participate in compound-like constructions (Grinevald 2000:61). Some of these class terms can appear as independent nouns but can also derive nouns (ex. *hao* ‘leaf’). Others always collocate with certain nouns (e.g., *tupi* ‘cut off wood’ and *kono* ‘drink’), yet others occur in compound-like

TABLE 5
CLASSIFIERS DOCUMENTED IN THE CORPUS

	CLASSIFIER	MEANING	APPLIES TO
1	- <i>dʒa</i>	river	river (<i>ʒiadʒa</i>), mar (<i>hai ʒiadʒa</i>)
2	- <i>dʒi</i>	plant	tree
3	- <i>dʒo</i>	rigid	house
4	- <i>ka</i>	grain	beans, rice, corn, bullet
5	- <i>ka</i>	branch	tree branches, paths
6	- <i>kā</i>	cloth	fabric, dress, blanket
7	- <i>me</i>	filiform	rope, vine, rainbow
8	- <i>mo</i>	long and cylinder	banana, guava
9	- <i>mu</i>	long and flexible	tail, candle, tortilla
10	- <i>pa</i>	flat	wall, teeth, fence, rice/corn field, bed
11	- <i>pi</i>	sphere	ball, head, belly, egg
12	- <i>pi</i>	cylinder	pot, pencil paunch, trunk (alligator)
13	- <i>po</i>	cave	mouth, oven, fire pit
14	- <i>ra</i>	water mass	fishing lake (<i>waʔi-ra</i>), creek (<i>ʒia-ra</i>)
15	- <i>ri</i>	area	bridge
16	- <i>ri</i>	net	fishing net, bag (Sp. <i>jacra</i>)
17	- <i>ro</i>	hollow	ear, cup
18	- <i>tiki</i>	flat and round	plate, coin, watch, grilling pan, raft
19	- <i>ts̥ʔe</i>	hook	banana bunch, fishing hook
20	- <i>wa</i>	contour with tip	yucca root, sweet potato
21	- <i>wa</i>	bifurcation	bifurcation of branch, creek, river
22	- <i>wi</i>	container	canoe, basket, hammock, pot, pencil pouch
23	- <i>wi</i>	cylinder	bottle, blowgun, flute, cartridge of shotgun
24	- <i>wi</i>	pile	pile of bananas, pile of yucca

constructions but can also take a classifier (e.g., *ʒara* ‘bifurcated wood’). These are not used with quantifiers, demonstratives, or any other morphosyntactic constructions.

In the next two subsections I will look at the uses of the shape classifiers. Unlike gender markers, shape classifiers appear on nouns (4.2.1) rather than on verbs. However, shape classifiers parallel gender markers in that they can be used with numerals to produce nominalized, referential expressions (4.2.2).

4.2.1. Shape classifiers on nouns. In Secoya, shape classifiers are exclusively assigned to inanimate nouns, attaching to generic roots that designate a category to generate individuated, mostly definite and referential nouns. Shape classifiers are a powerful resource for generating new vocabulary in Secoya. One important function of these markers is that they help to specify

TABLE 6
SHAPE CLASSIFIERS AND DERIVATION

NOUN-CLF	CLASSIFIER MEANING	GLOSS
<i>wea-dʒi</i>	plant	'corn plant'
<i>wea-wi</i>	cylinder	'ear of corn'
<i>wea-ka</i>	grain	'clove corn'
<i>wea-pa</i>	flat	'cornfield'
<i>kĩna</i>		'something hard'
<i>kĩna-pi</i>	sphere	'pot' (aluminum)
<i>kĩna-wi</i>	cylinder	'bottle' (glass)
<i>kĩna-ka</i>	grain	'bullet'
<i>kĩna-ro</i>	hollow	'cup' (glass, aluminum)
<i>kĩna-tiki</i>	hard-flat.round	'plate' (glass, aluminum)

or disambiguate entities in discourse. Table 6 illustrates a set of possibilities based on the nouns *wea* 'corn' and *kĩna* 'something hard'. Example (25) shows the noun *kĩna-wi* 'bottle' used in a sentence.

- (25) *metsa-re toatsō kĩa-wi-ã-pi*
 table-LOC three hard.thing-CLF.CONT-PL:INA-NOM
nika-ko-na, kahetse-pa?i-wi-ã-pi
 stand-DEP:SG:F-DS four-COLL-CLF:CONT-PL:INA-NOM
ũi-ko
 lie-3SG:F:IPFV:DE

'Three bottles are standing, four are lying on the table'

The subject 'bottle' is indexed with feminine marking in the dependent verb *nika-* 'stand' and the finite verb *ũi-* 'lie'. Note also the use of the classifier *-wi* on the numeral 'four' to make anaphoric reference to bottles. This is the topic of the following subsection.

4.2.2. Shape markers on numerals. In discourse, shape markers are typically suffixed to numerals, but only when the head noun is not present in the same phrase. In such cases, the referent of the classifier depends upon another expression in the discourse context or is inferred from the pragmatic context. This is illustrated in (26) and (27).

- (26) *te? ĩmi te? nomio dʒeha-re ñui-o nokwa-re*
 one man one woman ground-LOC sit-DEP:SG:F banana-ACC
kaɖʒa-wi-ã wato-ri ĩsi-o
 two-CLF.CYL-PL:INA pick-SS give-3SG:PFV:DE

'There is a man, a woman sitting on the ground picks up banana, two of those [bananas], and gives them to him'

- (27) *dʒedʒa*-*ki*-*pi* *kahetse*-*pāi* *ika*-**pi**-*ã*
 teach-NZR:M-NOM four-COLL plastic-**CLF.SPH**-PL:INA
 paʔa-*ki*-*na*, *toatsõ*-**pi**-*ã*
 have-DEP:SG:M-DS, three-**CLF.SPH**-PL:INA
 ñã-*wi*.
 steal-N3SG.PFV.DE

‘The teacher had four soccer balls; three [soccer balls] were stolen’

In (25) the interpretation of the classifier *-wi* ‘cylinder’ attached to *kaɟa* ‘two’ comes from the noun ‘banana’, which is the object of the previous clause in the chain. In (26), note that the numeral *kahetsepāi* does not take the shape classifier *-pi*; rather, the noun *ika* ‘plastic’ does to derive ‘soccer ball’. In the next clause in the chain, however, the shape classifier is suffixed to the numeral *toatsõ* ‘three’ to make reference to ‘soccer ball’. Note the plural marker following the classifier, which is further evidence for the nominalized status of the resulting quantifying construction.

4.3. The generic classifier. The morpheme *-ɟe* shares distributional features with gender markers, but semantically it aligns with shape classifiers.⁹ Like gender markers, *-ɟe* can be suffixed to demonstratives, numerals, and verbs. However, the resulting nominalization does not take any plural marker but can have either singular or plural interpretations that are resolved in the context. Semantically, *-ɟe* suffixed to demonstratives and numerals makes reference to inanimate entities, never animate entities, as seen in (28)–(30).

- (28) *nika*-*ri* *ĩ*-*o* *hui?*-*ɟe*-*re* *tũ?**ñe*-*o*
 stand-SS 3SG-F wear-**CLF.GEN**-ACC dress-3SG:F:PFV:DE
 ‘Standing, she changed her clothing’
- (29) *ãi*-*ñe* *tsoe*-*repa* *ɟo?**o*-*ɟe*
 eat-**CLF.GEN** already-FOC do-N2/3SG:IPFV:IE
 ‘They were done with the food supplies’
- (30) *ĩ*-*i* *ka?**ko*-*re* *duta*-*hẽo*-*pi* *kaɟa*-*ɟe*
 3SG-M cloth-ACC take.off-leave-3SG:M:PFV:DE two-**CLF.GEN**
 hui?-*hi*-*ki*-*pi*
 wear-DUR-NZR:M-NOM
 ‘He took off his clothing and left it, the one wearing two [pieces of cloth]’

⁹ The generic marker has three allomorphs [*ɟe*, *e*, *ñe*, *ke*]; their distribution follows morpho-phonological considerations. The generic marker *-ke* suffixes to the demonstrative ‘other’ (*ɟe-ke*).

In the context for example (28), *-dʒe* nominalizes the verb *huiʔ-* ‘wear’ to indicate ‘sweater.’ In (29), *-dʒe* nominalizes the verb *āi-* ‘eat’ to refer to food supplies in general. The example in (30) shows the nominalization of the numeral ‘two’, which, in this context, makes reference to T-shirts.

This marker has been analyzed as ‘inanimate’ by Johnson and Levinsohn (1990:38), and its cognate in Siona, Secoya’s closest relative, as ‘generic’ (Bruil 2014:138).¹⁰ In Secoya, it is generic in the sense of unspecified shape but can have both generic and specific interpretations. The list in (31) gives some examples with the numeral ‘three’ documented in the database for this study, which demonstrates that *-dʒe* interacts with the shape classifiers in the context of numerals.

- (31) *toatsō-ko-waʔi* ‘three animate ones [hens]’
toatsō-wi-ā ‘three tubular ones [bananas]’
toatsō-pi-ā ‘three sphere ones [soccer balls]’
toatsō-wi-ā ‘three tubular ones [bottles]’
toatsō-ñe ‘three inanimates [t-shirts]’

Their distribution in the corpus shows that the generic maker is used for unfamiliar, undefined, unclear shapes or when the likelihood of ambiguity is almost nonexistent. If in a given context ambiguity is a possibility, the shape classifiers are preferred.

4.4. Animacy. In Secoya, plural marking is sensitive to animacy. *Animacy* refers to the degree to which entities are capable of humanlike volitional behavior (Silverstein 1976). Animacy is an implicit category in Secoya: it is lexically specified in nouns and triggers the selection of grammatical number. Its relevance to nominal classification lies in the fact that the plural constructions obligatorily include gender markers and shape classifiers.

Secoya has two plural markers that divide the animacy continuum in two: *-waʔi* for human and animates and *-ā* for inanimates. To pluralize a noun, it needs to be first marked by a shape classifier or a gender marker. This pattern of distribution suggests that the function of both gender and shape markers is essentially the same, in line with Seifart (2005). In plural constructions, both of them make generic nouns that denote categories into referential entities prior to quantification.¹¹

As shown in table 7, nouns with animate referents, regardless of the gender of the referents, are suffixed by the feminine marker *-o* before being suffixed

¹⁰According to Bruil (2014:157), in Siona, “the general classifier *-je* is used to express agreement with plural inanimate nouns.” This observation does not hold for Secoya.

¹¹ There is a small set of nouns that do not require a classifier in the plural. In those cases, the plural allomorph *-ña* is used. (e.g., *wiʔe* ‘house’ *wiʔe-ña* ‘houses’)

TABLE 7
PLURALIZATION OF NOUNS WITH HUMAN REFERENCE

Noun	Gloss	Noun-CLF-PL	Gloss
<i>ĩmi</i>	‘man’	<i>ĩmi-o-waʔi</i>	‘men’
<i>nomi-</i>	‘woman’	<i>nomi-o-waʔi</i>	‘women’
<i>pāi</i>	‘person’	<i>pāi-o-waʔi</i>	‘people’
<i>kahe</i>	‘relative’	<i>kahe-o-waʔi</i>	‘relatives’
<i>aiḏḡo</i>	‘elder’	<i>aiḏḡo-o-waʔi</i>	‘elders’
<i>ñekwi</i>	‘grandfather’	<i>ñekwi-o-waʔi</i>	‘grandparents’

by *-waʔi*. In other words, the gender feature is neutralized in the plural as every animate noun must be marked by the feminine marker in order to be pluralized. This is one of the several instances in which feminine is the “default” gender for a group of individuals, regardless of the gender of the members in the group. The neutralization of gender is also evident in derived plural pronominal forms (32).

- (32) (a) *ĩ-o-waʔi* 3SG-F-PL:ANI ‘they’
 (b) *hã-o-waʔi* DEM.MED-F-PL:ANI ‘they, those’

The same pattern is shown for inanimate nouns in table 8. The nominal root together with the shape marker encodes a singular, semantically richer, referential entity. The plural marker *-ã* is suffixed after the classifier to encode a group of those entities.¹²

Examples (33)–(34) show that the numeral ‘two’ and the numeral ‘three’ behave differently in plural constructions; while ‘two’ does not need the feminine marker *-ko* to take the plural marker *-waʔi*, ‘three’ does require it. Also, as shown in (34b), the generic classifier *-ḏge* in ‘two’ makes reference to the animacy of its anaphor.

¹² In addition to the plural marker *-waʔi*, another strategy to indicate a group of animates is the collective maker *-pāi*, as illustrated below. In fact, in the corpus, there is not a single instance of a noun referring to a group of animals being pluralized by *-waʔi*. The collective marker *-pāi* seems related to the noun *pāi* ‘people,’ similar to Tatuyo’s *~bahá* ‘people,’ which can replace the animate plural class marker (Gomez-Imbert 2007:410). In Secoya, *-pāi* can co-occur with the plural marker *-waʔi*. The distributional properties of *-pāi* reveal that this is a collective marker, although different than the collective category documented in other Tukanian languages, such as Kotiria (Stenzel 2013:102).

<i>pipiri</i>	‘vulture’	<i>pipiri-pāi</i>	‘vultures’
<i>hãmu</i>	‘armadillo’	<i>hãmu-pāi</i>	‘armadillos’
<i>ma</i>	‘macaw’	<i>ma-pāi</i>	‘macaws’

TABLE 8
PLURALIZATION OF INANIMATE NOUNS

Noun	Gloss	Noun-CLF	Gloss	Noun-CLF-PL	Gloss
<i>tara</i>	'stick'	<i>tara-pi</i>	'pencil'	<i>tara-pi-ã</i>	'pencils'
<i>dʒo</i>	'canoe'	<i>dʒo-wi</i>	'canoe'	<i>dʒo-wi-ã</i>	'canoes'
<i>kĩna</i>	'hard thing'	<i>kĩna-wi</i>	'glass bottle'	<i>kĩna-wi-ã</i>	'glass bottles'
<i>turu</i>	'sack'	<i>turu-pi</i>	'pencil pouch'	<i>turu-pi-ã</i>	'pencil pouches'
<i>kĩna</i>	'hard thing'	<i>kĩna-pi</i>	'aluminum pot'	<i>kĩna-pi-ã</i>	'aluminum pots'
<i>kata</i>	'rock'	<i>kata-pi</i>	'stone'	<i>kata-pi-ã</i>	'stones'
<i>ãʔso</i>	'yucca'	<i>ãʔso-wa</i>	'yucca root'	<i>ãʔso-wa-ã</i>	'yucca roots'
<i>ika</i>	'plastic'	<i>ika-wi</i>	'plastic bottle'	<i>ika-wi-ã</i>	'plastic bottles'
<i>ika</i>	'plastic'	<i>ika-pi</i>	'soccer ball'	<i>ika-pi-ã</i>	'soccer balls'

- (33) *ĩ-i* *mama-hi-re* *wi-i*
 3SG-M off.spring-PL:ANI-ACC agouti-M
paʔa-ki-a-pi *kadʒa-waʔi-re* *nomio*
 have-NZR-COP-3SG:M:DE two-PL:ANI-ACC woman
kwiʔne *ĩmi*.
 also man

'The agouti has his offspring, two [offspring], a female and a male'

- (34) (a) *kahetse* *kura-re* *paʔa-wi*, *toatsõ-ko-waʔi*
 four chicken-ACC have-N3SG:PFV:DE three-F-PL:ANI
hũ-iʔi
 die-N3SG:PFV:DE

'They had four chickens; three died'

- (b) *toatsõ* *waʔti* *paʔa-wi*, *kadʒa-dʒe*
 three machete have-N3SG:PFV:DE two-CLF.GEN
ñã-wi
 steal-N3SG:PFV:DE

'They had three machetes; two were stolen'

To summarize this section, gender and shape markers in Secoya do not participate in agreement; however, they have discourse/pragmatic functions.¹³ Both gender and shape markers are primarily employed for reference tracking

¹³ For a discussion on the functions of classification morphology, see Contini-Morava and Kilarski (2013) but also Seifart and Payne (2007) and Grinevald (2000).

purposes. They contribute to the identification of referents in anaphoric and deictic constructions and to reference management by encoding definiteness and referentiality.

5. Emergence of agreement? As mentioned in 3, Tukanoan languages closely related to Secoya are described as having grammatical agreement within noun phrases. In addition, numeral classifiers are an areal feature in Northwestern Amazonia. Seifart and Payne (2007:382) observe that classifiers are required in numeral expressions in several languages of the region, including Witoto, Bora, Muinane, Ocaina, Peba-Yagua, and Baniwa. In Secoya the numeral ‘one’ and the set of demonstratives display interesting variationist behavior in the corpus. In adnominal construction, they can show up either marked or unmarked by gender or generic shape; thus it is worth exploring whether grammatical agreement might be emerging in these specific contexts. This should not be surprising, as in many languages with numeral classifiers, their occurrence in adnominal constructions is dependent on the choice of the numeral or of the noun (Gil 2013), and the tendency for agreement markers to occur only with lower numerals has already been noted (Aikhenvald 2000:41).

Recall from 4.1.3 that, in Secoya, gender-marked numerals and demonstratives are used for anaphoric purposes. In other words, they typically function as pronominal elements. However, the numeral ‘one’ can sometimes be suffixed with gender morphology in adnominal constructions, as in (22). This observation applies, although more rarely, to some demonstratives. The question becomes whether we can predict the conditions under which the gender-inflected and gender-uninflected forms occur and whether those conditions align with agreement patterns.

To investigate whether grammatical agreement might be emerging in Secoya, I quantify the relative frequency with which the numeral ‘one’ and the demonstratives occur inflected for gender in the corpus, when used adnominally as the quantifier/determiner of a noun. The questions that guide this quantification are two: (a) How prevalent are gender-inflected numerals and demonstratives compared to their uninflected counterparts in adnominal constructions? (b) Is gender marking of numerals and demonstratives controlled by the head of the noun phrase?

If the data were to show that gender-inflected forms in adnominal constructions are a relatively productive pattern in terms of frequency of use compared to the uninflected forms, this would suggest that NP-internal agreement is incipient in Secoya. In contrast, if the dominant use of genderinflected forms continues to be pronominal, this would suggest that grammatical agreement may not exist. As for the second question, if gendermarking on the numeral ‘one’ and the demonstratives is controlled by the head noun of the NP, this would point to NP-internal agreement. On the contrary, if the gender marker

is controlled by a referent outside the noun phrase, this does not constitute evidence for grammatical agreement.

For the quantification portion of the study, I extracted all the instances of numeral ‘one’ (n=155) and the three most frequent demonstratives (n=225) from a corpus of 14,580 words. The details of the corpus are provided in **1**; the results are discussed in **5.1** and **5.2**.

5.1. Numeral ‘one’. The numeral *teʔ* ‘one’ shows up in the corpus in four forms: bare or suffixed by *-i* ‘masculine’, by *-o* ‘feminine’, or by *-e* ‘generic’, which typically refers to inanimate entities of any shape (see **4.3**).

The bare form is illustrated in (26) and the form with masculine marking in (22), repeated below as (35) and (36), respectively, for ease of exposition.

- (35) **teʔ** ĩmi **teʔ** nomio dʒeha-re ñui-o nokwa-re
one man one woman ground-LOC sit-DEP:SG:F banana-ACC
 kadʒa-wi-ã wato-ri ĩtsi-o
 two-CLF.CYL-PL:INA pick-SS give-3SG:PFV:DE

‘There is a man, a woman sitting on the ground picks up banana, two of those [bananas], and gives them to him’

- (36) Javin-pi toatsõ-ko-waʔi-re, dʒe-ki-pi
 Javin-NOM three-F-PL:ANI-ACC DEM.other- M-NOM
teʔ-i-re hãnehẽ-tse wa-ãʔ-hiʔi
one-M-ACC like.that-RES kill-REM-3SG:M.DE

‘Javin killed three [peccaries], the other [hunter] only one’

The numeral with feminine marking is given in (37) and with generic marking in (38).

- (37) **teʔ-o** ñu-koʔi kwa-deo-wẽña-ne tsõki-kiro-hã
 one-F sit-3SG:F.PFV.DE very-good-place-LOC tree-place-PER

‘One female person sat in a very beautiful place around trees’

- (38) doʔro-wi-re **teʔ-e** tsõki-tara-pi-pi
 basket-CLF.CONT-LOC **one-GEN** tree-stick-CLF.CYL-NOM
 doa-hi-ko-pi nika-ko
 lean-DUR-NZR:F- NOM stand-3SG:F.IPFV.DE

‘One stick is leaning in a basket’

I analyze the tokens of ‘one’ in example (35) and (38) as quantifiers in adnominal constructions; in contrast, the tokens in (36) and (37) illustrate pronominal constructions where ‘one’ makes anaphoric reference to an antecedent introduced previously.

TABLE 9
GENDER/Generic MARKING IN 'ONE' IN ADNOMINAL AND PRONOMINAL USE

	uninflected		masculine		feminine		generic		totals
adnominal	83/83	(100%)	13/33	(39%)	3/12	(25%)	15/27	(56%)	114/155 (74%)
pronominal	0/83	(0%)	20/33	(61%)	9/12	(75%)	12/27	(44%)	41/155 (26%)
totals	83	(100%)	33	(100%)	12	(100%)	27	(100%)	155 (100%)

There was a total 155 tokens of *te?* 'one.' In order to quantify their role in agreement patterns, the tokens were coded for two variables: gender marking (feminine, masculine, generic, zero) and syntactic construction (adnominal, pronominal). The results are given in table 9. As seen in table 9, there are 83 uninflected forms in adnominal position; this represents 54% (83/155) of the total number of instances of 'one', and all of them function as a quantifier in an adnominal construction. In other words, more than half of the occurrences of the numeral 'one' behave like any other numeral in the corpus. Among the inflected forms, 13/33 (39%) masculine-inflected numerals occur as quantifiers in adnominal constructions. As for the feminine-inflected numerals, 3/12 (25%) are adnominal quantifiers. The generic-inflected numeral shows a higher use as quantifier (15/27, 56%) of the three inflected forms. Overall, this distribution indicates that only 31/155 (20%) tokens of 'one' that function as quantifiers display some sort of agreement within the noun phrase.

As for whether the gender marking on the numeral matches the head noun, the masculine *te?i* and feminine *te?o* match the gender of their head nouns. The generic *te?e*, however, can collocate with both inanimate and masculine nouns. In fact, 6/15 (40%) of the *te?e* tokens in the adnominal construction are headed by a noun with a human male referent rather than the expected inanimate. In their discourse contexts, *te?e* with masculine heads seems to be used for some sort of presentational function to introduce an indefinite male participant into the discourse. For example, a speaker begins a story with *te?e ?imi* 'one man (generic)', yet at the very next mention he uses *te? ?imi*, where the numeral 'one' is no longer inflected by either the generic or the masculine marker (39).

- (39) **te?**-e **?imi**-pi ?-d?ai-re tsiwa-ki
one-GEN man-NOM 3SG-dog-ACC happy-DEP:SG:M
pa?a-hi, **te?** **?imi**-pi
have-3SG:M:IPFV:DE **one** **man-NOM**
'A man has a dog and is happy, and the man . . .'

Analogous patterns of variation have been noticed across speakers. This variation invites hypothesis that *e* might be in the process of becoming a discourse-related marker.

5.2. Demonstratives. Secoya has demonstratives that encode three deictic points: *i* ‘proximal demonstrative,’ *hã* ‘medial demonstrative, away from the speaker’, and *he* ‘distal demonstrative, away from both speaker and hearer’. These demonstratives can show up in bare form, as in (40) and (41), where the lexical gender of the nouns is not coded in their modifiers.

- (40) **hã** ãmi-pi wero-pi
DEM.MED man-NOM buy-3SG:M:PFV:DE

hãi-ni-ne
 hammock-CLF.NET-ACC

‘That man bought a hammock’

- (41) tsõki-tsitì-pi he-teʔte **hã** nomio
 tree-base-CLF.SPH DEM.DIST-side **DEM.MED** woman

iwi-ko
 run-3SG:F:IPFV:DE

‘That woman runs at the other side of the tree base’

In (40) and (41), the medial demonstrative *hã* remains the same when the head is either ‘woman’ or ‘man’, hence no agreement between the demonstrative and the noun can be claimed. However, there are also examples of demonstratives with gender marking *-o* ‘feminine’ and *-i* ‘masculine’ and with *-dʒe*, the ‘generic shape classifier’. One example is given in (42).

- (42) **hã-o-pi** tãa-ni koʔko-ãʔ-ko
DEM.MED-F-NOM arrive-SS bark-REM-3SG:F:IPFV:DE

ĩ-o-waʔi
 3SG-F-PL:ANI

‘She [female dog] arrives and barks at them’

The tokens in (40) and (41) illustrate adnominal constructions, and (42) illustrates a pronominal construction. Parallel examples with the proximal demonstrative are offered in (43) and (44).

- (43) [i-dʒe wiʔe] deo wiʔe-a-ʔi
DEM.PROX-CLF.GEN house beautiful house-COP-3SG:INA:DE

‘This house is a beautiful house’

- (44) deo-wa-ñe-pi, [i-dʒe] dʒari
 hang-distribute-INF-NOM **DEM.PROX-CLF.GEN** small

tʃia-dʒa-maɲa paʔi-ko-a-ø
 river-CLF.RIV-DIM:PL exist-NZR:F-COP-N3SG:M:IE

‘The branches [of the tree], these become the small rivers’

In (43), *idʒe* and ‘house’ form a single constituent in a modifier-modified relationship where the generic classifier *-dze* refers to ‘house’. Thus, I analyze (43) as an adnominal construction with NP internal agreement, schematically shown as [Determiner-GEN Noun]. In contrast, in example (44), *idʒe* has an anaphoric relationship with ‘branch’ and not with ‘river’. In other words, *idʒe* is not the modifier of ‘small rivers’ but a nominalized construction on its own; thus, I analyze these types of instances as pronominal constructions. Most of the tokens coded as pronominal are like (42), where no other interpretations are possible.

There was a total of 227 demonstratives in the corpus, including 115 proximal demonstratives, 83 medial, and 29 distal. As with the numeral ‘one’, the tokens were coded for gender marking (feminine, masculine, generic, zero) and syntactic construction (adnominal, pronominal). The results for the demonstratives are given in table 10. The feminine, masculine, and generic distinctions have been collapsed in the “inflected” category given the small number of instances of adnominal tokens.

One of the main results from table 10 is that, within the set of demonstratives, the proximal demonstrative shows more variation in terms of inflection. Both inflected and uninflected forms of the proximal demonstrative can function as modifiers and pronominals, but only 32 show some traces of grammatical agreement between the demonstrative and its head noun. Importantly, this number represents only 28% (32/115) of the proximal demonstratives and 14% (32/227) of the total number of demonstratives in the corpus. However, the medial and distal demonstratives do not show evidence of grammatical agreement within the noun phrase, as their occurrence in adnominal constructions is extremely rare. Overall, demonstratives uninflected for gender are used overwhelmingly in adnominal constructions, as expected. In contrast, masculine- and feminine-marked demonstratives are used overwhelmingly in pronominal constructions, also as expected, hence no NP-internal grammatical agreement can be claimed.

Within the proximal demonstrative category, 28 out of 32 cases of inflected forms in adnominal constructions involve the generic classifier *-dze*. This seems to be a different phenomenon altogether. As discussed in 4.3, when *-dze* suffixes to numerals it functions as a generic classifier, creating expressions that make reference to inanimate, generic referents. However, with demonstratives, its behavior is different. First, it combines exclusively with the proximal demonstrative *i*. There are zero tokens with *hã* and *he*. Second, the majority of the tokens of *idʒe* occur in adnominal constructions. Its distribution is almost

TABLE 10
GENDER MARKING IN DEMONSTRATIVES IN ADNOMINAL AND PRONOMINAL USE

	PROXIMAL				MEDIAL				DISTAL			
	uninflected		inflected		uninflected		inflected		uninflected		inflected	
adnominal	11/14	(77%)	32/101	(32%)	40/40	(100%)	1/43	(2%)	9/9	(100%)	1/20	(5%)
pronominal	3/14	(33%)	69/101	(68%)	0/40	(0%)	42/43	(98%)	0/9	(0%)	19/20	(95%)
totals	14	(100%)	101	(100%)	40	(100%)	43	(100%)	9	(100%)	20	(100%)

categorical. Third, *idʒe* collocates with all kinds of nouns, not only inanimates. Thus, one hypothesis to consider is that the generic shape classifier *-dʒe* is becoming a neuter gender in this context. This analysis, however, raises the question of why a language with incipient agreement (i.e., with no obligatory slot for agreement in numerals or modifiers) would need a neuter option for humans if it has feminine and masculine marking available.

Nevertheless, given that *-dʒe* does not combine with the other two demonstratives, an alternative hypothesis is that *-dʒe* does not form a paradigm with the feminine and masculine markers. In other words, it may be the case that *idʒe* operates as a chunk, a sequence of morphemes that has been used often enough to be accessed together as a single unit (Bybee 2013:51). Its function would be that of a general demonstrative that is used regardless of the noun's gender. In other words, *idʒe* does not "match" any semantic feature of the head noun; it simply indicates deixis and/or definiteness. This hypothesis would need to be evaluated in a larger corpus.

6. Closing remarks. This study deals with nominal classification in Secoya as spoken in Peruvian Amazonia. It shows that gender markers and shape classifiers are primarily used in antecedent-anaphor relations. This is not surprising, as the primary locus of these categories across languages is in anaphora (Lehmann 2010:437). The classification markers encode gender and shape, but these semantic distinctions get neutralized in several ways in different grammatical constructions. Shape markers are used in lexicogenesis but also in grammatical environments outside the noun phrase. Gender markers operate as cross-indexes on the main verb, dependent verbs, and nominalized verbs. Overall, Secoya's classifier morphology contributes to anaphoric and deictic identification of referents and indicates definite and referential entities. Gender and shape markers in pronominal forms, demonstratives, and numerals are used to differentiate referents. They also play a role in how discourse is constructed and maintained.

The distribution of both gender markers and shape classifiers in plural constructions shows a clear connection between the two. They both seem to be used for individuation prior to pluralization. The idea is that nouns designate a category or class of realities (objects, qualities, actions, etc.) without making reference to any of its class members in particular (Chierchia 1998). Only when incorporated and actualized in a specific speech act and marked by classifiers do they denote particular specimens of the designated class that can be counted. As Lehmann (2010:437) points out, this line of analysis leaves us with two kinds of languages: the Yucatec Maya type that requires quantification in counting but not to make reference to entities in the context, and the Mandarin

Chinese type, which must individuate entities in both counting and reference tracking. Since in Secoya classifiers are not required in numerals, we would need a third type of language, one where individuation is not required in counting but only in pluralization and anaphora.

An agreement-like system might be emerging in Secoya, specifically in the context of the numeral ‘one’. For now, this applies only to a small portion of the tokens in the corpus. However, demonstratives do not show traces of grammatical agreement. The emergence of agreement should not be surprising given that semantics usually provides the original foundation for an agreement system, as gender classification tends to be based on biological differences between males and females. Classifiers can grammaticalize into gender systems, giving rise to a range of intermediate types (Nichols 1989:416). The semantic distinctions become obscured, and the agreement features become conventional. The data discussed here might suggest a crossover from classification to gender. As shown in 5, Secoya has a three-way distinction in the construction [Modifier_{GENDER}–Noun]. Only the numeral ‘one’ and the proximal demonstrative can occupy the position of the modifier. The gender values are feminine and masculine, and the third is generic/inanimate. Most important, the morphosyntactic distribution of the generic marker overlaps with both shape classifiers and gender markers. However, this pattern is far from stable, as speaker variation is noticeable. Gender markers in modifiers are clearly not obligatory, but they are not optional, either, in the sense of Gil (2013). In Gil’s typology, classifiers are considered optional if the numeral classifier is optional for a major class of numerals, even if it is absent for other numerals. As shown here, the use of Secoya classifiers with the numeral ‘one’ is still marginal and not available in all contexts.

To conclude, Secoya appears to be more conservative than other Western Tukanoan languages, such as Siona and Máihiki, but clearly further behind Eastern Tukanoan languages such as Tatuvo and Tanimuka, which display more advanced agreement systems. Given that only a few Tukanoan languages display highly grammaticalized agreement systems, the opposite development—reduction of classes, loss of agreement, and loss of a gender system—seems a less probable hypothesis.

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