Chapter 10

Chocó family

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The languages of the Chocó family are spoken in several enclaves in the Pacific Coast of Colombia as well in Eastern Panama, and are generally underdocumented and understudied (Section 1). The phoneme inventories of these languages are characterized by a contrast between oral and nasal vowels and by the contrast between aspirate and non-aspirate plosives; an challenging morphonological process is the spreading of the nasal feature in the word domain (Section 2). The morphology of these languages is concatenative, suffixal and predominantly dependent-marking (Section 3). The constituent structure is generally head-final (OV order, postpositions, clause-final subordinators) and the case marking of the arguments displays ergative alignment (Section 4). The typological relevance of these grammatical properties is evaluated in Section 5, while Section 6 demonstrates their occurrence in discourse by means of an illustrative text.

1   Languages and language situation[1]

The Chocó family contains two languages, Waunana (or Woun meun) and Emberá. The Chocó people share many common cultural properties, e.g., creation myths, textil traditions, forms of body painture, etc. Traditionally, they were settled in individual houses hosting various nuclear families, while the emergence of villages is introduced by the Hispanic culture. The Waunanas and Emberás are the last remnants of a larger group of Pre-Colombian ethnies, such as the Orominas, the Chancos, the Guarras, the Burrumías, that were diminished during the Colonial period (Chaves 1992: 146f.). Genetic findings show that the speakers of Chocó languages are genetically differentiated from the Chibcha speaking tribes of

Northern Colombia and cluster with the Orinoquian and Amazonian indigenous populations (Reich et al. 2012; Yunis et al. 2013).

In Panama, the Waunana population is estimated to 7 279 individuals and the Emberá population to 31 284 individuals according to the 2010 census. The majority is settled in the Darién Province, which contains two zones of indigenous communities; see Figure 1. Emberá people are found in both zones, while the Waunana people are settled in six communities of the northern zone near the Membrillo river, the river Tupiza, and the river Tuira. In Colombia, the Emberá population is estimated to 60 000 and the Waunana population to 4 000 speakers (Aguirre Licht 2009: 224). Some further indigenous languages are spoken in the vicinity of the Chocó communities: Chibchan languages in Panama and Colombia (in particular, Kuna) as well as Páez and the Northern Barbacoan languages (Guambiano and Totoró) at the Pacific Coast of Colombia (Adelaar 2004: 51; Aikhenvald 2007: 185ff.).

Figure 1. Settlements of the Chocó people (adopted from Lewis 2009)

(a) Darién Province, Panama　　　　　　　　　　　(b) Colombia

The Chocó family includes two languages, Waunana and the group of the Emberá dialects. Waunana and Emberá share a large number of cognates (estimated to 50% by Loewen 1960: 12), which provide evidence for their common origin (hypothesized time depth: 2 130 years; Constenla 1991: 45), but they are not mutually comprehensible. There is no clear evidence in terms of a sufficient number of cognates for a common origin of Chocó with other South or Central American families. The available proposals

relate Chocó to Chibchan, Arawak, and Carib (see summaries in Aguirre Licht 2009: 225 and Adelaar 2004: 23-34). Historical evidence suggests that the Chocó people had intensive contact and cultural linguistic exchange with the Kuna people in the pre-historic times (Lehmann 1920: 69ff.).

The varieties of Chocó languages are summarized in Figure 2 (see Loewen 1960; Pardo and Aguirre 1993; Aguirre Licht 2009). The Emberá dialects form a dialectal continuum with two geographically defined subgroups: the Northern branch contains the Proper Northern Emberá (referred to as 'Northern Emberá' in Mortensen 1999) spoken in the northern Pacific Coast of Colombia and in Panama and the Katío dialect that is spoken in the north of Antiochia and Cordoba in Colombia as well as in an enclave in Panama. The Southern branch contains the varieties of Baudó, Tadó and Chamí as well as the Epena or Saija in the South. The language tree of *The Automated Similarity Judgment Program* – based on the lexical similarity of a 40-items word list) confirms the major division between Waunana and Emberá; within the Emberá group, Katío clusters with Northern Emberá and both languages are distinct from the four varieties of Southern Emberá that form the clusters Chamí and Tadó on the one hand and Basurudo (variety of Saija) and Saija on the other, while the database does not contain lexicographical data for Baudó (see Müller et al. 2013).

The Waunana people are distinguished in two groups: the Döchaarpien people live in the settlements around the main and lower San Juan river in Colombia, while the Dösĩgpien are settled at the creeks. The majority of the speakers in Panama belong to the Döchaarpien group. This distinction is used in pedagogical manuals in Panama but the exact dialectal differences between these groups are not yet investigated in detail.
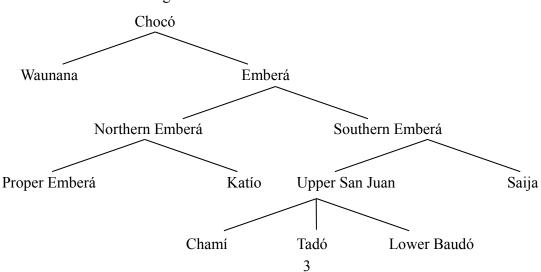
Figure 2. Genetic affiliation of the Chocó varieties

The languages Chocó are generally underdocumented and understudied. The most complete grammatical description of Waunana is the unpublished dissertation by Leowen (1954), whose parts on phonology and morphology offer a useful overview of the basic properties of the language. Binder and Binder (1974) is a description of the phoneme inventory. Sánchez and Castro (1977) offer a (first part of a) pedagogical grammar, based on Leowen (1954) and Binder and Binder (1974). Mejía Fonnegra (2000) is a descriptive sketch of Waunana in Colombia with some interesting information on word order. Further studies are Binder (1977), Mejía (1987), (1989), and Arboleda (2001), (2009), and (2010). For the Emberá dialects there are complete grammatical descriptions: Harms (1994) on Saija, Mortensen (1999) on Northern Emberá, Caudmont (1955-1956) and Aguirre Licht (1998, 1999) on Chamí. Teaching material has been developed for several Emberá dialects. Aguirre Licht et al. (2013) is a method for teaching orthography to Chamí speakers; Cayo Atienza (2002) is a teaching method of Katío containing a grammatical sketch of the dialect.

2   Phonology

2.1   Segments

2.1.1   Vowels

The Chocó languages share in common a system of six vowels in two series; see Table 1: the oral vowels /a/, /e/, /i/, /o/, /u/ and /ɯ/ and their nasal counterparts /ã/, /ẽ/, /ĩ/, /õ/, /ũ/ and /ɯ̃/. This system applies to all languages of the Emberá group apart from Saija, which additionally has a central mid-close vowel /ə/ and the Chamí, which has a rounded central mid vowel /ɵ/ instead of a mid back vowel /o/ (Herrera 2002). The Waunana inventory of oral vowels has an additional unrounded posterior mid vowel /ɤ/.[2]

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[2]   The Döosigpien variety also contains the high central vowels /ɪ/, /ö/ and /ʊ/ (see broad phonological transcription in Binder 1974). The phonemic contrasts are reduced in Döocharpien: the phoneme /ɪ/ is confounded with /i/ or /e/, e.g., (Döosigpien) /kʰɪɾ/ → (Döocharpien) /kʰiɾ/ 'leaf' and (Döosigpien) /alpad-ɪʊ/ → (Döocharpien) /alpad-eo/ 'Halpat demon-ERG'; the phoneme /ö/ turns to /ɯ/, e.g., (Döosigpien) /bö/ → (Döocharpien) /bɯ/ 'foot'; the phoneme /ʊ/ turns to /o/, e.g., (Döosigpien) /hʊːj/ → (Döocharpien) /hoːj/ 'old', or /u/, e.g., (Döosigpien) /ʧʊ/ → (Döocharpien) /ʧu/ 'liquid' (see Murillo 2014).

Differences in vowel quantity are attested in several Chocó languages. The phonological status of this contrast depends on further assumptions, in particular the modeling of the role of syllabic weight for the stress rules (see Constenla 1991: 50f. on Waunana and Emberá; see Loewen 1954, Binder and Binder 1974, Sánchez and Castro 1977 on Waunana).

Table 1. Phonemic vowels

(parenthesis indicates that the vowel at issue does not appear in all varieties)

	oral				nasal			
	front	central	back		front	central	back	
			unrounded	rounded			unrounded	rounded
high	i		ɯ	u	ĩ		ɯ̃	ũ
mid	e	(ɘ)(ɵ)	(ɤ)	o	ẽ			õ
low		a				ã		

2.1.2 Consonants

The inventory of consonants is characterized by a threefold contrast within the plosives, including an unvoiced non-aspirated series (/p/, /t/, /k/), an unvoiced aspirated series (/pʰ/, /tʰ/, /kʰ/), and a voiced (non-aspirated) series (/b/, /d/, in some languages /g/) and the lack of corresponding fricatives with phonemic value. All languages have two fricatives /s/ and /h/, the affricate /ʧ/, the nasales /m/ and /n/, the contrast between a tap /ɾ/ and a trill /r/, and the approximants /j/ and /w/; see Table 2.

The voiced velar /g/ appears in Waunana and only in some Emberá varieties, i.e., Saija, and the varieties of South Coast, Antioquía, Córdoba and Upper Baudó (Mortensen 1999: 5; Pardo and Aguirre 1993; Aguirre Licht 2009). The aspirated series are reported for Waunana and Emberá; their phonological status is disputed by Herrera (2002); Aguirre Licht et al. (2013) show that the alternation between the bilabial ([p] vs. [pʰ]) and alveolar ([p] vs. [pʰ]) plosives is complementary in Chamí, such that the aspirated realizations appear in accented syllables and the non-aspirated elsewhere, which indicates that aspiration has no phonological status. A velar fricative phoneme /x/ is reported for Chamí (Aguirre Licht 1995: 31); further fricatives only appear as allophones, e.g., the bilabial unvoiced [ɸ] appears as an occasional variant of /pʰ/ (reported for Northern Emberá in Mortensen 1999: 5; for Saija in Harms 1985: 14; and for Chamí in Aguirre Licht et al. 2013), the bilabial voiced [β] as an allophone

of /w/ (reported for Northern Emberá in Mortensen 1999: 6), the fricative velar [x] as an allophone of /kʰ/ (reported for Saija in Harms 1985: 14). An alveolar affricate /ts/ is reported for Katío (Cayo Atienza 2002: 16). The aspirated sibilants /ʧʰ/ and /sʰ/ are proposed by Mortensen (1999) for Emberá. The palatal nasal /ɲ/ only appears in Waunana. The lateral /l/ has phonemic status in Waunana, but not so in most languages of the Emberá group, in particular in Northern Emberá (Mortensen 1999: 5), Katío (Cayo Atienza 2002: 16) and Chamí (Herrera 2002: 113). The implosives /ɓ/ and /ɗ/ appear in several Emberá varieties: Chamí (see Aguirre Licht et al. 2013: 65f.), Upper San Juan, Antiquía, Córdoba, Upper Baudó as well as in the Emberá variety of Panama. The approximant /ʋ/ is reported for Emberá (Herrera 2002: 113; however, it is not assumed to be a separate phoneme by Mortensen 1999: 5).

A controversial issue in the segmental phonology of the Chocó languages is the phonological status of the glottal [ʔ]. The glottal stop is assumed to be a separate phoneme of Waunana by Binder and Binder (1974) and in Saija (Harms 1985: 15) but not a separate phoneme of Northern Emberá (Mortensen 1999: 5). This difference also occurs in orthographical practices: glottal stops are orthographically represented in Panama (through the letter <h>), but not so in Colombia. The different views on the phonological status of glottal stops do not relate to differences between varieties but rather to different phonological assumptions. A glottal stop is inserted to every naked syllable, e.g., Waunana, /õːɾ/ [ʔõːnᵉ] 'people'; Saija, /ˈã.ʧi/ [ʔˈã.ʧi] 'people' (Harms 1985: 16). In languages of the Emberá group, glottal-stop insertion is also attested in cases of vowel lengthening and concomitant resyllabification (see 3.2). In all these cases, the glottal stop is fully predictable by assuming a phonological constraint against naked syllables, i.e., the presence of a glottal stop in underlying representations is redudant. However, glottal-stop insertion is not predictable in all cases: in Emberá for instances, the glottal stop contrasts with zero in cases of adjective intensification, e.g., Saija /kʰũrasáa/ 'cool', /kʰũraʔsáa/ 'very cool' (Harms 1994: 39).

Table 2. Phonemic consonants

(±V: ±voiced; ±A: ±aspirated; parenthesis indicates that the phoneme at issue does not appear in all languages)

	bilabial			alveolar			postalv.		palatal	velar			glottal
	−V		+V	−V		+V	−V		+V	−V		+V	−V
	−A	+A		−A	+A		−A	+A		−A	+A		
plosive	p	pʰ	b	t	tʰ	d				k	kʰ	(g)	(ʔ)
implosive			(ɓ)			(ɗ)							
fricative				s	(sʰ)					(x)			h
affricate				(ts)			ʧ	(ʧʰ)					
nasal			m			n			(ɲ)				
lateral						(l)							
trill						r							
tap						ɾ							
approximant			(ʋ)						j			w	

2.1.3 Orthographic representations

The orthographical practices vary between authors and between countries. A part of the orthographical variation simply relates to the choice of different symbols for the same phonological entity, while other orthographical decisions reflect different phonological assumptions. Recently, the orthography of Chocó languages is regulated in Panama by Law (see Law 88 by República de Panamá, Asamblea Nacional 2010, containing an Appendix with orthographical conventions for Waunana and Emberá).

Some orthrographic conventions are uncontroversial. The spellings <a>, <i>, <e>, <o>, <u> for the vowels and the spellings <p>, <t>, <k>, <b>, <d>, <g>, <s>, <m>, <n>, <l>, <w> for consonants are used with the corresponding IPA value. The contrast between vibrants is spelled uniformingly as <r> for the tap /ɾ/ and <rr> for the trill /r/ in all sources. The additional vowels of Waunana are regulated by Law 88: /ɤ/ <ä>, /ɪ/ <ë>, /ʊ/ <ö>, /ü/ <ӥ>; the central mid-close vowel /ə/ in Saija is spelled as <ë> (Harms 1994).

Some differences are purely orthographical in nature. Aspiration is written either with an apostroph <'> (Law 88 for Emberá and Waunana; Aguirre Licht et al. 2013 for Chamí) or with superscript <ʰ> (Harms 1994 for Saija, Mortensen 1999 for Northern Emberá). The glottal fricative is represented by <h> in Harms (1994) and Mortensen (1999), which is the proper IPA symbol, while local orthographies

use the spelling <j>, as usual in orthographies of Latin American indigenous languages. The affricate /ʧ/ is written as /ch/ in the local sources and as /č/ in Harms (1994) and Mortensen (1999). The implosives are written as <ɓ> and <ɗ> according to Law 88 (Panama), while other sources use the IPA symbols <ɓ> and <ɗ> (Aguirre Licht et al. 2013 for Chamí). In the orthographic transcriptions of this article, we adopted the spelling <ch> of the affricate, the spelling <j> of the glottal fricative, and the spelling <ɓ> and <ɗ> of the implosives, and the spelling <'> of the aspiration, and we normalized the cited examples accordingly in order to avoid variation due to writing conventions.

A source of confusion is the orthographical representation of the high unrounded back vowel /ɯ/, which is spelled as <ʌ> (IPA value for open-mid unrounded back vowel) according to the official orthography in Panama, as <ʉ> (IPA value for high rounded central vowel) in Binder, Harms, and Peña Ismare (1995) and Mortensen (1999), or as <ɯ> in other sources (Aguirre Licht 1999 for Chamí, Cayo Atienza 2002 for Katío). Beyond the differences in the transcription, the phonetic transcriptions of this vowel agree that this vowel is a high unrounded back vowel (see Mortensen 1999: 5 on Northern Emberá, Murillo 2014: §2.4 on Waunana). Hence, it seems that the variation in these cases is a matter of orthographic convention. In our examples, we normalized the transcription to <ɯ>. Harms (1985, 1994) uses the spelling <ɨ> (IPA value for high unrounded central vowel) for Saija, which he describes as 'high unrounded back vowel' (Harms 1985: 14), which should be rendered as <ɯ>, and later as 'high unrounded central vowel' (Harms 1994: 4). Mortensen (1999: 4) observes that this vowel corresponds to /ɯ/ and /u/ in Northern Emberá cognates. Similarly, Cayo Atienza (2002: 16) describes the high unrounded vowel as 'central' in Katío (although he transcribes it as <ɯ>). In the absence of instrumental phonetic studies, it is not clear whether these differences reflect dialectal variation in the phonetic realization or just different assumptions of the authors. Therefore, in the transcription of the Saija examples we maintain the orthography <ɨ> of the source.

2.2 Suprasegmental phenomena

2.2.1 Word stress

Word stress is postlexically determined in the word domain, i.e., there is an accentual template that applies to all lexical items; word stress is culminative and generally not distinctive (beyond a few counterexamples in Emberá; see below). In Waunana, Saija, and Chamí, monomorphemic words are stressed on the before-last mora, which may be either in the penultima if the ultima is light or in the

ultima if it is heavy, while heavy syllables are those with a long vowel, a diphthong or a consonantal coda (see Leowen 1954: 17 and Binder and Binder 1974: 88-90 for Waunana; Aguirre Licht 1995: 39-51 for Chamí; Harms 1994: 8 for Saija); see examples in (1). Stress rules are different for Northern Emberá: monomorphemic words have final stress, e.g., [hãˈpa] 'canoe', and suffixed words have penultimate stress (see further discussion in Mortensen 1999: 7).

(1) a. Waunana

light ultima: [ˈʧadʧa] 'truth'   heavy ultima: [nẽˈmĩʃ] 'bird'

b. Saija (Harms 1994: 8)

light ultima: [ʧoˈkʰaɾa] 'many'   heavy ultima: [waiˈbɯa] 'big'

c. Chamí (Aguirre Licht 1995: 39)

light ultima: [iˈmãmã] 'tiger'   heavy ultima: [imãˈmã:] 'tiger'

The metrical head of a word is the rightmost subconstituent, i.e., the word stress remains with the last morpheme, as illustrated in (2). In this case, the stress may appear on a light ultimate syllable, as in (2b). The consequence of the metrical rule is the presence of minimal pairs with stress contrast, e.g., Chamí *kiúru* 'meat' vs. *kiu-rú* 'delay-INC' (Aguirre Licht 1995: 46; see also Harms 1994: 8 for Saija). Some suffixes are within the stress domain, while others do not. This distinction gives rise to another class of minimal pairs, e.g., Saija, *mɨ-a* (1SG-ERG) vs. *mi-á* (1SG-DAT) (Harms 1994: 8).

(2) a. Waunana

[ˈʧad.ʧa] 'truth' + [ag] 'DAT'   →   [ʧad.ˈʧa:g] 'towards the truth'

b. Saija (Harms 1994: 8; 46)

[ˈni.pa] 'walk' + [ʔe] 'NEG'   →   [ni.pa.ˈʔe] 'do not walk'

2.2.2 Nasalization

Nasalization is an areal phenomenon of several languages in Lower Central America (attested in Chibchan languages; see Quesada, this volume) as well as of several languages in the equatorial region of South America (attested in Tucanoan, Arawakan, Warao, etc.; see Hajek 2013). The head of the nasalized domain is a nasal segment in the underlying representation, i.e., either a nasal consonant or a

nasal vowel. The nasal feature of the head is spread within the word, while the direction and the domain of the spread differs across languages.

In Chocó languages, the nasal feature spreads within the syllable of the head affecting the realization of sonorants (to the exception of the multiple vibrant /r/) and voiced obstruents. Furthermore, it affects the subsequent syllables (progressive nasalization); see (3). Spreading to the preceding syllables (regressive nasalization) is attested in Waunana, but only if the head is a nasal consonant (not with nasal vowels); see (4). In Northern Emberá, regressive nasalization is reported to appear only with some speakers; see idiolectal variants of (4b) (Mortensen 1999: 8); sporadic instances of regressive nasalization are reported for various Emberá varieties (see Llerena Villalobos 1995: 259, 309 on the varieties of Jaidukama, Christianía and Alto Andágueda). The domain of nasalization is blocked by unvoiced plosives, e.g., /k/ in (4a), sibilants, e.g., /sʰ/ in (4b), as well as by the multiple vibrant /r/ (see Harms 1985: 15 on Saija; Mortensen 1999: 7 on Northern Emberá; Aguirre Licht 1995: 62-66 on Chamí).

(3)   Progressive nasalization

   a.   Northern Emberá (Mortensen 1999: 8)

          /wẽ.ɾaa/ [wẽ.ŋãã] 'for the woman'

   b.   Saija (Harms 1994: 16)

          /pe.ˈɾõ.ɾa/ [pe.ˈŋõ.ŋã] 'baby'

   c.   Waunana

          /pʰã:ɾ/ [pʰã:ɾ̃ẽ] 'closed'

   d.   Chamí (Aguirre Licht 1995: 70)

          /xemeɗĕɗe/ [xemẽnĕ́ɗe] 'for playing'

(4)   Regressive nasalization

   a.   Waunana

          /sa:.kje.naw/ [sa:.kjẽ.nãw̃] 'with the dogs'

   b.   Northern Emberá (Mortensen 1999: 8)

          /u.sʰa.ɾã/ [u.sa.ŋã] ~ [u.sã.ŋã] 'dogs'

Nasalization affects all sonorants (except the multiple vibrant /r/) within the nasalized domain. Vowels appear in their nasal counterparts. Consonants may be realized with a velic opening, e.g., [w̃] and [ɉ] in (4a), or [r̃] in (3c), or they may be totally assimilated, e.g., /ɾ/→[ŋ] in (4b), /d/→[n] in Saija, /ˈdã.we/ [ˈnã.w̃ẽ] 'mother' (Harms 1994: 16). Emberá dialects also display instances of nasalization of unvoiced obstruents, which are generally cross-linguistically rare. Unvoiced obstruents are nasalized with a homorganic nasal segmentoid that is realized before the consonant, e.g., Chamí, /jãs/ [jã^{n}s] 'kiss!' (Aguirre Licht 1995: 65), Northern Emberá, /hã.pa/ [hã.^{m}pa] 'canoe' (Mortensen 1999:7), Saija, /kʰũ.tɾaa/ [kʰũ.^{n}tɾaa] 'young man' (Harms 1994: 16).

3   Morphology

3.1   Morphological processes

The morphology of the Chocó languages is concatenative and suffixal. The morpheme order is head-final: Inflectional categories are expressed through suffixes (see Section 3.2.2). Similarly, derivational affixes predominantly follow the stem: e.g., Northern Emberá, *kuwa-mia* (have_a_fever-NMLZ) 'fever' (Mortensen 1999: 70f.); Katío, *buru-tsake* (head-DIM) 'little head' (Cayo Atienza 2002: 52). Prefixes only occur rarely, e.g., derivational prefixes in Chamí: *né-kõ* (NMLZ-cut) 'fork' (Aguirre Licht 1999: 101).

Compound formation is also head-final: the semantic type of the final subconstituent determines the semantic type of the compound in (5a); the syntactic category of the final subconstituent determines the syntactic category of the compound in (5b). Exocentric compounds are also attested; see (5c).

(5)   a.   Chamí (Aguirre Licht 1999: 100)

[[*wǎwa* (baby)]N *de* (house)N]N 'nursery school'

b.   Northern Emberá (Mortensen 1999: 34)

[[*to* (river)]N *wi* (stir)V]V 'paddle'

c.   Waunana

[[[*kĩirjug* (thought)]N *kaug* (know)V] ∅ A]A 'intelligent'

Although the morphology of the Chocó languages is generally concatenative, some cases of suppletion occur with frequent verbs in Waunana (Murillo 2014: §3.2.1). The alternative stems are conditioned by tense and/or verbal number; e.g., *ma-* 'go.PRS.SG' vs. *wëtu-* 'go.PRS.PL' vs. *peta-*

'go.PST.SG'; *huru-* 'come.PRS.SG' vs. *wëduru-* 'come.PRS.PL' vs. *bëe-* 'come.PST.SG'; *si-* 'be.PRS.SG' vs. *nu-* 'be.PRS.PL' vs. *sie-* 'be.PST.SG'.

Reduplication is very productive and may be total, e.g., *dau~dau* in (6a), or partial, e.g., *p'ãwã~p'ãwãrã* in (6b). In some cases of partial reduplication, the onset of the reduplicated syllable is dropped, such that the naked syllable is realized with a glottal stop, e.g., *pi~ʔia, wa~ʔarráa, khũ~ʔűa*; see (6b-c). Reduplication is frequently used for the derivation of adjectives, e.g., *dau~dau*, and verbs, e.g., *ji~jii*, frequently with the verbalizer *-k'a* 'VBLZ', e.g., *ja~jaau-k'a*; see (6a). Verbs formed through reduplication have an iterative or durative interpretation; see *jö~jöi-k'a* and *ja~jaau-k'a* respectively. Reduplication of adjectives may be used as intensification, e.g., *pi~ʔia, wa~ʔarráa, khũ~ʔűa*.

(6)   a.   Waunana

        dau 'eye'   →   *dau~dau* 'visible'

        jii 'tiger's roar'   →   *ji~jii* '(to) roar'

        jaau '(dog's) bark'   →   *ja~jaau-k'a* '(to) bark'

        jöi '(to) throw'   →   *jö~jöi-k'a* '(to) throw and throw'

   b.   Northern Emberá (Mortensen 1999: 31f.)

        p'ãwãrã 'blue'   →   *p'ãwã~p'ãwãrã* 'greenish-blue'

        ip'ida '(to) laugh'   →   *ip'ida~ip'ida* '(to) smile'

        pía 'good'   →   *pi~ʔia* 'very well'

   c.   Saija (Harms 1994: 39)

        warráa 'flavorful'   →   *wa~ʔarráa* 'very flavorful'

        khűa 'sweet'   →   *khũ~ʔűa* 'very sweet'

3.2   Word classes

3.2.1   Lexical categories

Evidence for the distinction between verb classes comes from word formation processes as well as from the inflectional possibilities of different classes of stems. Word formation processes provide evidence for a contrast between nominal and verbal stems, nominal and adjectival stems, as well as between verbal and adjectival stems; see (7).

(7) a. V→N, Waunana (Murillo 2014)

[[*joo* (cook)]ᵥ -*tarr* (-NMLZ)ɴ]ɴ '(a/the) cook'

b. N→A, Chamí (Aguirre Licht 1999: 101)

[[*púr* (red (color))]ɴ -*rua* (-ADLZ)ₐ]ₐ 'red (coloured)'

c. V→A, Chamí (Aguirre Licht 1999: 102)

[[*mĩo* (fight)]ᵥ -*sía* (-ADLZ)ₐ]ₐ 'brave'

Nouns inflect for number and case; e.g., Saija, *warra-rǎ̃-pa* (son-PL-ERG) 'children' (Harms 1994: 13). Verbs inflect for aspect, tense, optionally number (cross-referring to the subject), and finally mood; e.g., Waunana, *mie-baadë-ji-m* (cry-INC-PST.SG-DECL) 'starts crying'. Adjectives occur as modifiers of nouns and as predicates. In the predicative function, adjectives contrast with verbs in that they require a copula; e.g., Northern Emberá, *pio waibua b-ɯ-a* (very large be-PRS-DECL) 'it's very big' (Mortensen 1999: 18). Comparative degree is formed with suffixation, while the same form is interpreted as relative superlative in the absence of second term of comparison; e.g., Waunana, *wajap-cha* (good-CMPR) 'better/very good' (the comparative suffix is *-cha* in Waunana, *-ra* in Saija and Northern Emberá; see Harms 1994: 12, Mortensen 1999: 12). Further concepts of degree are expressed periphrastically. In Katío, all degrees of adjectives are expressed with periphrastic means (Cayo Atienza 2002: 55). Intensification of adjectives is expressed through reduplication; see (6b-c).

There is no formal difference between adjectives and adverbs, i.e., the same stem can occur as a modifier of a noun or a verb – provided that it is semantically compatible with both syntactic functions. Adverbs are used for locative, temporal, manner, etc. adjuncts (see Mortensen 1999: 19f. on Northern Emberá; Harms 1994: 25-27 on Saija; Murillo 2014: §3.4 on Waunana). Finally, there is a class of postpositions denoting several spatial relations and further relational concepts; e.g., Chamí, *de éda* (house in) 'in the house' (Aguirre Licht 1999: 150); Saija, *te ek'ári* (house under) 'under the house' (Harms 1994: 29).

3.2.2 Functional categories

Personal pronouns inflect for number and case. Table 3 presents the pronominal roots that correspond to the absolutive case (see Waunana in Murillo 2014: 3.1.2; Saija in Harms 1994: 58; Katío in Cayo Atienza 2002: 61; Chamí in Aguirre Licht 1999: 94). In Northern Emberá, absolutive pronouns

normally occur with a suffix indicating their discourse status; Mortensen (1999: 42, 49). The majority of the presented forms are clear cognates, as expected for personal pronouns of genetically related languages. These pronouns are frequently used with the intensifier -*chi* 'POSS', which renders emphatic pronominal forms (see Harms 1994: 58f. on Saija). The use of this form with the first plural pronoun in Northern Emberá renders a first person exclusive interpretation (see Mortensen 1999: 42).

Table 3. Personal pronoun roots

	Waunana	Emberá			
		N. Emberá	Saija	Katío	Chamí
1SG	*mu*	*mu*	*mɨ*	*mu*	*mu*
2SG	*pu*	*pu*	*pɨ*	*bu*	*bu*
3SG	*hi-*	*i-*	*iru*	*i-*	*i-*
1PL	*maar*	*tai*	*tai*	*tai*	*da-*
2PL	*pãar*	*pãpã*	*pãra*	*maara*	*ma-*
3PL	*ham-*	*ãchi*	*ãra*	*ãchi*	*ã-*

Possessive determiners are derived by the stems of the persons, e.g., Waunana *pu-ch* '2.SG-POSS'. In Northern Emberá, possessive determiners bound by the ergative differ from possessive determiners bound by further referents: *pu-chi* '2.SG-POSS.SBJ' vs. *pu-re* '2.SG-POSS' (see Mortensen 1999: 42-45).

Furthermore, the Chocó languages have a class of determiners, which includes demonstratives distinguishing two deictic regions (proximal vs. distal) as well as a definite article (*chi*, see in Murillo 2014: §3.5.1, Mortensen 1999: 142f., Harms 1994: 191-193). Numbers are originally formed in a quintesimal system with the word for 'five' being identical with the word for 'hand'. The Chocó languages have a rich inventory of clause-final complementizers expressing temporal, causal, final, conditional, and concessive relations (see Saija in Harms 1994: 151-166; Northern Emberá in Mortensen 1999: 113-127; Waunana in Murillo 2014: §4.2.2).

3.3   Morphological categories

3.3.1   Number

Number is marked on nouns and verbs. The singular is generally unmarked, while the plural is overtly marked. Within the noun phrase, plural is marked on the head, which is either a noun or a pronoun. Nominal plural is encoded by the morpheme *-rã* in Emberá: Northern Emberá, *p'araskua-rã* (armed_man-PL) (Mortensen 1999: 42); Saija, *wẽráa-rã* (woman-PL) (Harms 1999: 10); Chamí, *ibana-rã* (bird-PL) (Aguirre Licht 1999: 77). The plural morpheme in Waunana is *-(n)naan* or *-n* depending on the phonological properties of the stem, e.g. *nemkõr-naan* (snake-PL), *nemchai-n* (bird-PL) (Murillo 2012: 64f.). Katío differs from the further Chocó languages in that nouns do not inflect for number (see below). The plural morpheme does not necessarily attach to the noun but it may attach to postnominal modifiers, which suggests that it is a noun phrase modifier, i.e., a postclitic rather than a suffix; see (8a-b). Other options are also possible, e.g., plural morpheme spreading in Chamí (see Aguirre Licht 1999: 77).

(8)   a.   Saija (Harms 1994: 56)

        epérã   õpee-rä̃-pa

        person   three-PL-ERG

        'three persons'

    b.   Chamí (Aguirre Licht 1999: 77)

        ibana   mipitá-rã

        bird   good-PL

        'good birds'

The plural morpheme behaves like an adjunct. It is not obligatory for noun phrases with plural reference but only appears if the expression of plurality is relevant for the discourse and not retrievable from the context. The plural morpheme is frequently omitted in the presence of plural quantifiers, but it is not excluded in the context of quantifiers; see (8a). It is more likely to appear with entities that are conceptualized as individuals (e.g., humans), while entities that are lower in the animacy scale occur with singular or plural reference without any overt expression of number (Harms 1994: 55; Mortensen 1999: 42). Some observations on the usage of plural suggest that it has an abundancy reading; e.g., with large groups of individuals, the plural is most likely to occur (Mortensen 1999: 42).

Verbal number displays nominative alignment, i.e., it applies to the absolutive of intransitive verbs or the ergative of transitive verbs. The reported facts on the Chocó languages do not provide evidence for the use of verbal number for event quantification (which is a frequent phenomenon in languages with verbal number). The plural suffix is highly intergrated to the verbal inflection such that its form depends on tense; see Northern Emberá -*ta* 'PL' in present/habitual and -*da* 'PL' in the past tense; see also Waunana *k'ö-ji-m* (eat-PST-DECL) '(he/she/it) ate', *k'ö-jierra-m* (eat-PST:PL-DECL) '(they) ate', *k'ö-ju* (eat-FUT) '(he/she/it) will eat', *k'ö-ju(a)rrau* (eat-FUT:PL) 'they will eat'. There is a functional complementarity between the verbal plural and the expression of plural in the subject such that the plural does not need to be expressed in the verb if the subject is marked for plurality (see Murillo 2014: 3.1.4 on Waunana and Aguirre Licht 1999: 76 on Chamí). In Katío, nouns do not bear a plural morpheme at all; a plural morpheme only appears with pronouns and verbs. Plural reference of nominal (not pronominal) subjects is only expressed through the number morphology of the predicate; see (9). Plural reference of nominal non-subjects is expressed through quantifiers (Cayo Atienza 2002: 45f.).

(9)   Katío (Cayo Atienza 2002: 46)

    a.   *inbera   pede-aya.*
          Indian   speak-PRS.DECL
          'An Indian speaks.'

    b.   *inbera   pede-da-aya.*
          Indian   speak-PL-PRS.DECL
          'Indians speak.'

3.3.2   Case

The cases of the arguments show ergative alignment. The absolutive case is the unmarked nominal stem, as illustrated in (10) from Waunana. Absolutives in some Emberá dialects normally occur with a suffix indicating their discourse status, but this suffix is not a case marker since it is associated with certain discourse features: in particular, it requires that the referent is activated in the common ground (Mortensen 1999: 49 on Northern Emberá; Cayo Atienza 2002: 21f. on Katío).

(10) Waunana

    a.   *jooi   p'udduꞮ.*

         old   jump.PRS

         'The old person jumps.'

    b.   *jooy-au   tood   weeo-wai.*

         old-ERG   mosquito_net open-when

         'The old person opens the mosquito net.'

The ergative case is marked by suffixes, which phonologically differ across languages but share in common the use of the same suffix for instrumental and (in Emberá) for ablative relations, suggesting that the ergative/instrumental polysemy traces back to Proto-Chocó; see -*au* 'ERG|INS' in Waunana, -*pa* 'ERG|INS|ABL' in Saija, Northern Emberá, and Katío, whereby in Katío it assimilates to -*ba* after sonorants (Murillo 2014: 3.1.5; Harms 1994: 66, 76; Mortensen 1999: 48; Cayo Atienza 2002: 20, 46). Case markers attach to the noun phrase (not to the nominal stem): in case of coordination, the case marker appears at the right edge of the coordinated phrases; see (11). The ergative suffix interacts with information structure in Northern Emberá: focused ergative phrases are marked with -*pꞟrꞟ*, non-focused ergative phrases with -*pa* (Mortensen 1999: 48).

(11) Waunana

    Ana   Pedro dẍi-mua   saak   wai   nu-m

    Anna   Pedro and/with-ERG dog   possess be.PL-DECL

    'Ana and Pedro have a dog.'

Beyond the case marking of the arguments, the Chocó languages have a rich repertoire of inherent cases. The case paradigm includes a dative for indirect objects, -*a* 'DAT' in Emberá and -*ag* 'DAT' (also used for encoding allative relations) in Waunana as well as a benefactive case in the languages of the Emberá group, -*it'ea* 'BEN' in Northern Emberá, -*it'ee* 'BEN' in Saija, and -*it'a* 'BEN' in Katío (Harms 1994: 68; Mortensen 1999: 50; Cayo Atienza 2002: 20). Local relations (allative and ablative) and spatial regions (interior, superior, inferior, etc.) are expressed through suffixes that are complementary to case markers. The dependency of a noun phrase to a nominal head is expressed through

juxtaposition in a head-final linearization (dependent-head). A genitive suffix optionally occurs in several languages (see further discussion in Section 4.1.1).

3.3.3 Tense and aspect

Tense is an obligatory category of the verbal inflection. A basic contrast between absolute tenses, i.e., tenses expressing the temporal localization of the *event time point* with respect to the *speech time point* (present, past, future) are available in all languages at issue. Furthermore, Katío and Northern Emberá make a remotedness distinction (immediate vs. unspecified temporal distance) in those tenses in which the event time point does not coincide with the speech time point (past and future); e.g., Northern Emberá *wã-toko-a* (go-IMM_PST-DECL) 's/he just left' vs. *wã-podo-a* (go-IMM_FUT-DECL) 's/he is about to leave' (Mortensen 1999: 72). The concept of 'immediateness' is also expressed in Waunana: *kö-baadë-k'im* (eat-INC-IMM) 's/he immediately starts to eat'. The immediateness suffix is mutually excluded with the tense suffixes but the denotation of the suffix is not restricted to a particular tense (in contrast to the Emberá suffixes).

Various forms are interpreted as relative tenses. Waunana has an anterior past, denoting that the event point precedes a *reference time point* in the past; see (12a). Interestingly, it is reported for several Emberá dialects that tenses are interpreted as relative in subordinate clauses (Saija in Harms 1994: 97; Northern Emberá in Mortensen 1999: 72): the tense of the embedded verb is not interpreted with reference to the *speech time point* but with reference to the *event time point* of the matrix verb; see (12b).

(12) a. Waunana

  kũs   pʌ́rau-wie,   deg   pʌ́a-pʌ́i-ji-m.
  pork   grasp-ANT   house:DAT   free-OBJ.SG-PST.SG-DECL
  'Having grasped the pork, s/he let it free in the house'

  b. Northern Emberá (Mortensen 1999: 72)

  wã-pu-ta-ta   wã-pu-ta-ta   hũẽ-s'i-da-a   ichi   te   to-eda.
  go-PRS-PL-SUB   go-PRS-PL-SUB   arrive-PST-PL-DECL   3SG   house   river-into
  'Walking for a long time, they arrived at the river's edge below his house.'

Verbal aspect is expressed by morphological processes (suffixation and/or reduplication) as well as with periphrastic means (auxiliaries). Suffixes are used for the expression of imperfective, the perfective, the inceptive, and the prospective aspect (see Harms 1994: 106; Mortensen 1999: 78f.; Murillo 2014; Aguirre Licht 1999: 119-122). All Chocó languages encode the habitual aspect morphologically either for actions that repeatedly occur or for generic statements as in (13a). In Waunana, next to the habitual suffix, repeated actions are expressed by a combination of reduplication and suffixation (with the verbalizer -*k'a* expressing iterative aspect with reduplicative stems and frustrative aspect with simple stems); see (13b). Beyond the morphological means (suffixes and reduplication), aspect is encoded through auxiliaries that express a fine-grained inventory of aspectual distinctions, including terminative aspect, the dilative aspect, which expresses a gradual process of accumulated actions, etc.

(13) a. Saija (Harms 1994: 110)

      eperãa-rã̋-pa   *k'awódo*   *k'o-pá-ta.*

      person-PL-ERG   mountain_rat eat-HAB-PL

      'The Epena are accustomed to eating mountain rats.'

    b. Waunana

      mu *ma-ma-k'a-ju*   *Darien-ag.*

      1SG go-go-VBLZ-FUT[SG]-DECL   Darién-DAT

      'I will frequently go to Darién.'

3.3.4 Mood

Modal suffixes express a rich inventory of illocutions and modalities. The basic illocutionary distinction between declaratives and interrogatives appears in all Chocó languages; interestingly, each language demonstrates a different contrast in terms of markedness. In Saija, the declarative is generally unmarked (a declarative marker only appears in quotations; see Harms 1994: 114), while interrogatives are marked with a verbal suffix (distinguishing between polar and constituent questions); see (14). Waunana demonstrates the opposite pattern, which is cross-linguistically uncommon. Interrogatives are unmarked, while declaratives appear with a suffix in particular verbs in present, past, and habitual (see Murillo 2014: §3.2.3.3); see (15). Northern Emberá and Chamí instantiate the third logical possibility, having a marker of declaratives, -*a* 'DECL', and a marker of polar interrogatives (-*k'á* 'POL' in Northern

Emberá and *-ka* 'POL' Chamí), while constituent questions do not have marking at all in Northern Emberá (Mortensen 1999: 83) and appear with an emphatic suffix *-ma* 'EMPH' in Chamí (Aguirre Licht 1999: 96f.).

(14) Saija (Harms 1994: 17; 24)

    a.   *Hã   k'oráa píara   bɨ.*
           that   basket good-CMPR   be
           'That basket is better.'

    b.   *Pɨ   ak'őree tée-da   bɨ-k'á* ?
           your   father   house-LOC be-POL
           'Is your father at home?'

    c.   *K'ã́a-ta   oo-máa   bɨ́-ma* ?
           what-FOC make-PROG   be-INTRG
           'What are you making?'

(15) Waunana

    a.   *Pɨ   jam-ag   ma*?
           2SG   where-DAT go.PRS
           'Where are you going?'

    b.   *Mɨ Darien-ag   ma-m.*
           1SG Darien-DAT   go.PRS-DECL
           'I go to Darién.'

Imperative is expressed with suffixation. Saija distinguishes between 2. person singular and 2. person plural imperatives through two different suffixes (see (16)), while the 2. person plural imperative is expressed with the addition of a plural suffix preceding the imperative suffix in Northern Emberá (Mortensen 1999: 85) and following the imperative suffix in Waunana (Murillo 2014: §3.2.3.3). Further illocutionary categories that are marked through suffixes are the exhortative, and the prohibitive (see Murillo 2014: §3.2.3.3 for Waunana; Harms 1994: 115f. for Saija; Mortensen 1999: 84f. for Northern Emberá; Aguirre Licht 1999: 108-116 for Chamí).

(16) Saija (Harms 1994: 115f.)

    a.   *ãyáa wǎ̃-hi*

        aside go-IMP.SG

        'Move aside!'

    b.   *ãyáa wǎ̃-tɨ*

        aside go-IMP.PL

        'You all move aside!'

    Verbal suffixes are used for the expression of modality (see conceptual distinctions in Hengeveld 2004). Facultative modality is expressed by the potential suffix in Waunana and may be either participant-related as in (17a) or also event-related elsewhere (see examples in Murillo 2014: §3.2.3.3). Deontic modality is expressed by the permissive suffix in Waunana; see (17b). Epistemic modality is available in the marking of irrealis, which is not expressed by single suffixes but by combinations of suffixes (*-i-khá* 'might-POL' in Saija, see Harms 1994: 117; *-i-ta* 'FUT-FOC' in Northern Emberá, see Mortensen 1999: 85). A proposition-related notion of epistemic modality is the doxastic modality, indicating the speaker's commitment to the presented information. A particular category sharing epistemic and evidential properties is the use of the emphatic suffix in confirmation, expressing the speaker's commitment to a proposition that is available in the common ground (Saija in Harms 1994: 116; Northern Emberá in Mortensen 1999: 85); see (18). Speaker's commitment is expressed by the marker *-pɨ* 'CERT' in Saija; e.g., *pee-hí-pɨ* (kill-PST-CERT) 'I surely killed something' (Harms 1994: 117). Finally, evidential modality is expressed by reportative suffixes in Northern Emberá (Mortensen 1999: 86f.).

(17) Waunana

    a.   *Mua   töod   weeu-duk'am,   mamu mu k'och k'a-ba-m.*

        1SG.ERG   mosquito_net open-POT   but   1SG want be-NEG-DECL

        'I am able to open the mosquito net, but I do not want to.'

    b.   *Mu miee-pi-bá.*

        1SG cry.PRS-PRM-IMP

        'Let me cry!'

(18) Saija (Harms 1994: 116)

    A: *Hápa   áupa   t'u-hí.*

           canoe   finish   cut-PST

           '(I have) finished working on the canoe.'

    B: *Hápa   áupa   t'u-hí-ma.*

           canoe   finish   cut-PST-EMPH

           'That's right, (you have) finished working on the canoe.'

4   Syntax

The Chocó languages show the properties of head-final languages: OV order, postpositions, embedded verbs preceding matrix verbs. The internal structure of the the noun phrase displays a complex pattern with prenominal determiners and postnominal adjectives. At the clausal level, the basic order is SOV with some flexibility used for discourse purposes; see 4.1. The case marking of the arguments displays ergative alignment, but the syntactic properties of the clause otherwise correspond to a nominative-accusative pattern; see 4.2.

4.1   Constituent structure

4.1.1   Noun phrase

The neutral order in the noun phrase is: [DP D [QP [AP [NP N] A] Q]. Determiners (D) precede the noun (N), while adjectives (A) and quantifiers (Q) are postnominal in the neutral configuration (see Harms 1994: 13 on Saija; Mortensen 1999: 10f. on Northern Emberá). Determiners include demonstratives, e.g., Saija, *na imamá-pa* (this tiger-ERG) 'this tiger' (Harms 1994: 45), some indexical elements, e.g., Northern Emberá *abari pedea* (same word) 'the same word' (Mortensen 1999: 37), as well as the definite determiner, e.g., Saija, *chi pak'úru* (DEF tree) 'the tree' (Harms 1994: 192).[3] The definite article

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[3]   The definite determiner *chi* 'DEF' is used with referents that are uniquely identifiable in the common ground. The use of the determiner is not obligatory for every definite noun phrase, i.e., bare noun phrases may also refer to introduced and uniquely identifiable referents. The definite determiner also appears without a complement NP, in which case it is interpreted as an anaphor to a salient referent (see examples in Saija, Harms 1994: 193). In examples with relational nouns, it is interpreted as a possessive element, e.g., Northern Emberá, *chi kʰima* (DEF spouse) 'his spouse' (Mortensen 1999: 38; see also similar examples from Saija in Harms 1994: 193). This interpretation is an expected effect of definiteness: a uniquely identifiable relational noun is possessed by the running topic.

is also used for the nominalization of non-nominal constituents; see (19a). Adjectives follow the noun, e.g., Waunana, *k'um kaibak* (tigre bad) 'bad tiger', and Saija, *bi chóma* (belly big) 'a big belly' (Harms 1994: 41), Chamí, *do aibue* (water big) 'sea' (Caudmont 1955-1956, vol. II: 58). Quantifiers include numerals, e.g., Saija, *úsa õpée* (dog three) 'three dogs' (Harms 1994: 53), as well as further quantificational modifiers such as, Saija, *chík'o chok'ára* (fish many) 'I killed many fish' (Harms 1994: 54). Quantifiers may also precede the noun, in which case they follow the determiner; see (19b). The universal quatifier, e.g., Waunana *tungwe* 'all' in (19b) has special distribution: it may precede the determiner as in (19b) or also following the nominal constituent. In complex noun phrases, the embedded noun phrase proceeds the head noun; e.g., Katío, *moises kíma* (Moses wife) 'the wife of Moses' (Cayo Atienza 2002: 27).

(19) a.   Saija (Harms 1994: 48)

      Chi   p'arát'a   íru   bɨ-pa   it'úa   neto-rú.

      DEF   silver   have be-ERG liquor   negotiate-PRS

      'The one who has money buys liquor.'

    b.   Waunana

      tungwe jã-kɯɯn   jayap   p'a   kõtõ

      all   this-PL   four   cow fat

      'all these four fat cows'

Dependent noun phases are juxtaposed to the left of the head noun; e.g., Waunana, *mu saak* (1SG dog) 'my dog'. A dependent-marking construction is reported for several Chocó languages. If the dependent NP is case marked, it may either precede or follow the head noun; e.g., Katío, *inbera-de usa* (Indian-GEN dog) 'a/the dog of the Indian' (Cayo Atienza 2002: 47), Waunana, *saak mu dën* (dog 1SG of) 'my dog' (see the same alternation in Northern Emberá in Mortensen 1999: 51; Saija in Harms 1994: 69). Mejía Fonnegra (2000) claims that the former construction is used for inalienable possession and the latter for alienable. However, this hypothesis is not justified by the empirical data – as the variation in the above examples from Waunana indicates.

Relative clauses are internaly headed, as illustrated in (20). The instrumental case has the embedded clause under its scope. The head noun of the relative clause in the English translation is an argument of the embedded clause in Saija (see similar examples in Northern Emberá in Mortensen 1999: 11).

(20)   Saija (Harms 1994: 15)

Mɨ́-a   cha   ne-ʔɨ́mɨ   omé   íru   bɨ-pa   tái   erátɨ
1SG-ERG   this_here   GENR-egg   two   have   be-INS   eye   heal

bee-yá-da   a-hi.
be_INCEPT-FUT-DECL   say-PST

'He said, "His eyes will become healed with these two eggs that I have".'

4.1.2   Verb phrase

The verb phrase follows the pattern of head-final languages. Complements normally precede the verb, as illustrated in (21a) with the object of a transitive verb, in (21b) with the direct and indirect object of a ditransitive verb (see deviations from the canonical order in 4.1.3). Manner adverbs precede the verb (see examples in Aguirre Licht 1999: 141 for Chamí), while adpositional adjuncts of the verb phrase (e.g., instruments or commitatives) preferrably follow the verb, see (21c) (see Harms 1994: 121).

(21)   a.   Saija (Harms 1994: 43)

Mɨ́-a   te   oo-hí.
1SG-ERG   house   make-PST

'I built a house.'

   b.   Waunana

Mua   lapi   pɯrɯg   dee-ji-m   Pedro-o   p'am=kiin.
1SG.ERG   pencil   2SG.DAT   give-PST.SG-DECL   Pedro-ERG   write=PURP

'I gave you the pencil in order that Pedro writes.'

   c.   Saija (Harms 1994: 121)

José   wã-hí   chúmbi   óme.
José   go-PST   Chumbi   with

'José left with Chumbi.'

Verb clusters are linearized in a head-final pattern. The auxiliary follows the lexical verb, and the matrix verb follows the embedded verb; see (22a). With verb series, the verb inflected for tense is the final verb of the cluster; see (22b). With non-verbal predicates, the auxiliary follows the predicative element; see (22c).

24

(22) a.   Chamí (Aguirre Licht 1999: 138)

        ɓu   kúita   duanú-ka?

        write   know   be.PRS.PL-POL

        'Are they able to write?'

    b.   Saija (Harms 1994: 93)

        Póbre   k'ãi-bái   ba-na-hí   máu té-de.

        poor   sleep-down   be-go-PST   rock house-LOC

        'The poor man went and fell asleep in a cave.'

    c.   Northern Emberá (Mortensen 1999: 23)

        Ẽpẽrã-ra   porekea   b-ɯ-a.

        person-ABS   fat   be-PRS-DECL

        'The man is fat.'

4.1.3   Clause

The canonical word order of the clause is SOV; see illustration in (21a-b). Complementizers follow the core clause (some of them are independent phonological words while other cliticize to the verbal head; see (21b) above). Hence, Chocó languages display the typical linearization of a head-final language as summarized in (23); see also Caudmont (1956b: 61) on Chamí. Temporal and locative adjuncts either precede the subject or precede the VP, depending on their scope, indirect objects precede direct objects, manner adverbs are left adjacent to the verb, embedded verbs precede matrix verbs and the complementizer is at the right margin of the clause. Deviations from the canonical order are possible but contextually restricted (Mejía Fonnegra 2000 reports for instance the orders SOV, SVO, OSV, OVS for Waunana).

(23) (temp./loc.) ≺ Sbj. ≺ (temp./loc.) ≺ ind. obj. ≺ dir. obj. ≺ manner ≺ emb. V ≺ matrix V ≺ Compl.

    In main clauses, adjuncts and arguments may follow the verb. In particular, adverbs and postpositional phrases may also occur postverbally in neutral contexts. This is not a case of right-dislocation: first, postverbal constituents can be focused; second, the linearization of postverbal

constituents is not mirroring the preverbal orders (V ≺ manner ≺ dir. obj. ≺ indir. obj.) but remains identical to (23) at the right side of the matrix verb. Hence, the linearization of the constituents is consistently head final, while the verbal head and the object constituent may appear at the very end of the clause or in an earlier position.

A constituent may appear clause-initially if it is a topic. Locative or temporal frame-setters frequently appear at the left margin of the clause; see (24a). Object-topicalization renders an OSV order; see (24b) (reported to be possible with a prosodic break after the object constituent; Cayo Atienza 2002: 27).

(24) a.   Saija (Harms 1994: 12)

Ídi   mɨ   ak'õre   wã-hí.

today   my   father   go-PST

'Today, my father left.'

      b.   Katío (Cayo Atienza 2002: 27)

wã̃wa,   usába   kaá-s-ma.

boy   dog   bite-PST-EMPH

'What concerns the boy, the dog bit it.'

The V-final order is not rigid in Chocó languages; postverbal constituents appear very frequently (see illustrative text in Section 6). These possibilities are not available for subordinate clauses with a clause-final complementizer. Datives and adjuncts frequently appear postverbally; see (25a). Postverbal direct objets are possible, as illustrated in (25b), which differs from the Chibchan languages of the Isthmian branch, in which the object must be left-adjacent to the verb (see Quesada, this volume).

(25) Waunana

      a.   *Chipör-au   p'atkon   dee-ji-m   hich   huɨɨy-ag   noor.*

chief-ERG   money   give-PST.SG-DECL   3SG   woman-DAT   yesterday

'The chief gave money to his wife yesterday.'

      b.   *Mua   përhau-ji-m   chi   saak.*

1SG.ERG   buy-PST.SG-DECL   DEF   dog

'I bought the dog.'

Some modifiers of absolute arguments may appear postverbally, rendering thus a discontinuous noun phrase (see similar examples from Northern Emberá in Mortensen 1999: 21). This construction is frequent in texts and appears with quantifiers (26a-b) and also with demonstratives (see discussion and further examples in Murillo 2014). This construction is cross-linguistically uncommon but it is not unusual in the linguistic area at issue (see also Chibchan; Quesada, this volume). The fact that the quantifiers occur in the postverbal position suggests that this position is accentually prominent. Quantifiers of the maximally embedded constituent (object) are very likely to be the focus of the utterance, which may account for the preference to realize them at this position.

(26) Waunana

  a. *Mua   t'ungwe   mɯ-kɯɯn jap   hiöor   hak'oo-ji-m   numi.*

     1SG.ERG all   this-PL   pirogue new   loose-PST.SG-DECL two

     'I lost both these new pirogues.'

  b. *Mua   mɯ-kɯɯn jap   hiöor   numi   hak'oo-ji-m   t'ungwe.*

     1SG.ERG this-PL   pirogue   new   two   loose-PST.SG-DECL all

     'I lost both these new pirogues.'

Interrogative sentences do not differ from declaratives in word order; see subject-locative-verb order in a polar question in Saija in (14b). The same holds for *wh-* questions: the *wh-* pronoun appears in the canonical position of the corresponding constituent in declaratives; see (15a). There is no evidence that an interrogative phrase influences the position of the verb.[4] Subject interrogative pronouns precede the VP in questions and are not adjacent to the verb; see (27a). Imperatives appear in canonical word order; see (27b). In sum, there is no evidence that the illocution influences word order, in particular through V-fronting operations that are cross-linguically common.

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[4]   For instance, in some V-final languages, such as Basque or Armenian, the finite verb is attracted by the *wh-* pronoun or the focus of the utterance.

(27) a.   Waunana

          Kayi-o   chi   kolaau haip'a-ji?

          who-ERG   DEF   basket   finish-PST.SG

          'Who finished the basket?'

     b.   Northern Emberá (Mortensen 1999: 95)

          Anancio   pɯ-a   mũ-ra   ete-tua !

          Anancio   2SG-ERG   1SG-ABS   take-IMP

          'Anancio, take me along!'

4.2   Grammatical relations

4.2.1   Ergativity

The morphological marking of the core arguments follows an ergative pattern; see discussion in 3.3.2. The crucial question is whether ergativity is only related to the morphological marking of the arguments or it reflects a deeper difference in the grammatical status of the arguments. Chocó languages do not have a contrast between active and passive voice, i.e., there is no syntactic process to promote the patient of a transitive verb to the subject function. Since agents of transitive verbs are accompanied by the same markers as instruments (see 3.3.2), a plausible hypothesis is that all verbs are intransitive in nature, i.e., the agent phrases of the apparent transitives are instrumental adjuncts. If this hypothesis would be justified, the absolutive phrase would be uniformingly the subject of intransitive and apparently transitive verbs.

There is evidence that the ergative case is directly related to the thematic role of the agent. In Katío, ergative case also appears with subjects of intransitive verbs. This results to minimal pairs of intransitive verbs with ergative and absolutive subjects; see (28) (the same alternation is also reported for Chamí; Aguirre Licht 1999: 60). The construction with the absolutive subject in (28a) denotes the event of motion, while the construction with the ergative subject denotes the intensional action of 'walking'. Hence, the presence of the ergative marker depends on whether the volitional involvment of the subject is relevant, which indicates that the ergative is an inherent case related to the agent role (with the interpretational properties that are known for languages with active-inactive argument alignment). An interesting interaction with aspectual categories is reported for Waunana (Sánchez and Castro 1977: 131): the presence of ergative marking in periphrastic constructions with the copula

renders a progressive interpretation, while the corresponding construction with an absolutive subject is interpreted as stative. These aspectual effects are in line with the view of ergative as an agent marker, since states are not compatible with agents. These phenomena support the view that the ergative case marks a thematic role and not a syntactic relation.

(28) Katío (Cayo Atienza 2002: 26)

    a.   *usa*   *tua*   *maa-bú.*

         dog   walk   PROG-be

         'The dog is walking (= moves ahead by walking).'

    b.   *usá-ba*   *tua*   *maa-bú.*

         dog-ERG   walk   PROG-be

         'The dog is walking (= performs the event of walking).'

However, the syntactic properties of the languages at issue do not support the view that the agent constituent of a transitive verb is an oblique adjoined to a basically intransitive verb. First, the plural marker on the verb cross-refers to the agent of the transitive verb (and not to the absolutive argument, as it would be expected if the verb was intransitive); see (29). Second, Chocó languages have an imperative that applies to the subject of intransitives and to the agent constituent of transitive verbs; see (27b). This data indicates that these verbs are bi-valent and that the agent constituent has the same status as the single constituent of intransitive verbs, although its morphological case is determined by the thematic role.

(29) Saija (Harms 1994: 10)

    ɨmɨk'ĩraa-rǎ-pa   *hápa*   *hidiu-hi-dá.*

    man-PL-ERG   canoe   drag-PST-PL

    'The men dragged the canoe (out of the jungle).'

4.2.2 Syntactic processes

A valency-increasing operation that occurs in all Chocó languages is causativization. Causativization is possible with intransitive and transitive verbs. With causativized transitive verbs, the ergative argument

is the causer, while the agent is marked in dative case; see (30) (see Murillo 2014: §4.1.5 on Waunana; Cayo Atienza 2002: 80 on Katío; Aguirre Licht 1999: 143f. on Chamí).

(30) Chamí (Aguirre Licht 1999: 149)

  Bucí-a   *mu-á*   *ciko*   *ko-bí-s-ma*.
  2SG-ERG   Pedro-DAT   food   eat-CAUS-PST-EMPH
  'You let me eat food.'

A valency-decreasing operation is noun incorporation; see (31). The incorporated noun forms a prosodic word with the verb: crucially, the agent constituent is marked for absolutive case when the patient is incorporated to the verb. A related instance of detransitivization is the incorporation of a pronoun with generic reference, cf. Saija *ne* 'GENR', which renders an introversive verb form; see (31b). The subject is marked for absolutive case, which shows that the incorporation of the generic pronoun affects the grammatical status of the agent argument (see Mortensen 1999: 61 for the same phenomenon in Northern Emberá). Similarily, reflexive contructions are formed with the incorporation of the possessive pronoun to the verb (see Section 3.2.2 on pronouns).

(31) a.   Northern Emberá (Mortensen 1999: 60)

      Ara   *mãũ-ta*   *Anancio-ra*   *p'ata=o-s'i-a*.
      same   this-SUB   Anancio-ABS   plantain=make-PST-DECL
      'Right then Anancio made dinner.'

  b.   Saija (Harms 1994: 87)

      José   *ne=k'o-hí*.
      José   GENR=eat-PST
      'José has eaten.'

  c.   Katío (Cayo Atienza 2002: 79)

      chi=ning-aya.
      POSS.SBJ=kiss-PRS.DECL
      'I kiss myself.'

5   Typological and areal evaluation

A salient property of the phonology of the Chocó languages is the contrast between nasal and oral vowels as well as the nasal spreading at the morphophonological layer. Vocalic nasality appears in several languages of the broader area, both in Chibchan languages (Paya, Cabécar, Bribri, Teribe, Guaymí, but not in Kuna) as well as in different languages of Colombia, such as in Yukpa (Carib), Barasano (Tucanoan), and in particular in some languages of the Pacific Coast, i.e., Tsafiki and Awa Pit (Barbacoan) as well as in Páez (see Adelaar 2004: 132, 143; Hajek 2013). A cross-linguistically rare property of the nasal spreading in Chocó is the occurrence of regressive nasalization reported for various languages of this family.

The morphology of Chocó languages is exclusively suffixing. This property also occurs in the languages of Lower Central America (both Misumalpan and Chibchan) that are predominantly suffixing and contrasts to the other languages of the Colombia that also have prefixes (see Arawakan and Barbacoan in Adelaar 2004: 120, 145). The Chibchan language that is reported to have historical contacts to the Chocó languages, namely Kuna, has exclusively suffixing inflectional morphology but a rich inventory of derivational prefixes (see Holmer 1947: 72-82). Turning to the morphological categories, the Chocó languages differ from the languages of the Lower Central America in not having numeral classifiers (that appear in almost all Chibchan languages of the Isthmian branch) and in the rich marking of categories related to evidentiality in the Emberá dialects. Inflectional expressions of evidentiality are absent in the Central and Lower Zone of Central America but are common in Barbacoan languages, in Quechua as well as in the languages of the Amazonia (Aikhenvald 2007: 196f.).

The case marking of the arguments follows an ergative pattern, while there is no evidence for ergativity at the syntactic level. Ergativity also occurs in some Chibchan languages (Guatuso, Cabécar and Bribri), while the language families of the Pacific Coast have nominative alignment. Some particular properties of the ergativity in Chocó languages is the interaction with agentivity (in particular the occurrence of ergative marking with volitional subjects of intransitive verbs) as well as the ergative/instrumental/ablative polysemy of the ergative suffix. These phenomena suggest that ergative case is associated with a thematic role and not with a syntactic function.

The Chocó languages are consistently head-final, with OV basic order, postpositions, head-final verb clusters, and complementizers at the right margin of the clause. The directionality of noun phrases shows a complex pattern: dependent noun phrases precede the nominal head, while adjectives and

quantifiers follow the noun. A particular construction is the occurrence of discontinuous noun phrases with a quantifier following the noun. These linearization properties exactly occur in Chibchan languages of the Isthmian branch. Páez and Awa Pit (Barbacoan) have head-final verb projections and postnominal modifiers, while further Barbacoan languages have head-final verb projections but prenominal modifiers. The Arawakan languages of the Carribean coast have V-initial order (Adelaar 2004: 118, 135).

6   Illustrative text

The following text is the beginning of a traditional say in Waunana. It is performed by Diego Upúa, recorded and transcribed in 2010 by José Manuel Murillo Miranda in the community Puerto Lara (Darién Province of Panama). The transcription follows the orthographic conventions of the official orthography (according to the law 88 of 22nd November 2010), and was made with the assistance of Vallarino Cheucarama.

(32)   *Pabu   hee   ma-je-m   dɨ̈i   hũan   Boiboi*
      mountain   in   go-HAB-DECL   and   old   Tulevieja
      'The hunter and the old Tulevieja'

(33)   *Mɨ̈ta-ji-m   haa-je-m   warrkur mɨg Sabana   hee   hõor*
      pass-PST.SG-DECL   say-HAB-DECL   old   that Sabana   in   people
      höo-ba-ji-m   haa-je-m   mɨg döosig hee.
      see-NEG-PST.SG-DECL   say-HAB-DECL   that river   in
      'In the past, they say that there was no people at the Sabana river.'

(34)   *Mɨg epoca   negöor-ta   siee-ji-m   haa-je-m*
      that era   latin-EMPH   be-PST.SG-DECL   say-HAB-DECL
      mɨg portgauta   sie-ji-m   haa-jem,
      that above   be-PST.SG-DECL say-HAB-DECL
      'In this era there was only latin people, they say, there above, they say.'

(35) *maagwaiyim mɯg Laran hõor chuku haa-ji-m-ta*
in_this_time that Lara people nothing have-PST.SG-DECL-EMPH
pabʌ̈ montaña haa-ji-m.
tree forest have-PST.SG-DECL
'In this time, there was not people in Puerto Lara, there was only forest.'

(36) *Magbawai jaamporgarmua bëe-ji-m negöor chip'uch mag*
so from_there_above come-PST.SG-DECL latin black ANA
negöor chip'uch bëe-wia magbaadewia mʌg hee
latin black come-ANT then that in
durr-ag ma-ji-m haa-je-m.
place-DAT go-PST.SG-DECL say-HAB-DECL
'So, a black latin came from there above, and after the black latin came, he went to this place, they say.'

(37) *Mag durr-ag ma-wie muk hee durr-ag si-m döosig.*
ANA place-DAT go-ANT that in place-DAT be-DECL river
'After he went to this place, he was at a river.'

(38) *Mag döosig hee marag ma-wie, si-m laja pömsim*
ANA river in above go-ANT estar-DECL slate big
laja mok dauma mag mok dau gaai
slate stone pure ANA stone pure on
mok dau como kãi-ju wajap'a kitu-m.
stone pure how sleep-FUT good be-DECL
'As soon as he went above the river, a big slate was there, a pure slate, on a stone, a pure stone, which was good to sleep.'

(39) *Magua ma-ju.*
afterwards go-FUT
'Afterwards, he will leave.'

(40) *Mug hee   bajaa-je-ji-m   beer   mug kumik   hee*
that in   go_down-HAB-PST.SG-DECL wild_pig   that walk   in
beer   bajaa-je-ji-m   haa-je-m   beer.
wild_pig   go_down-HAB-PST.SG-DECL   say-HAB-DECL chancho_de_monte
'A wild pig came down, the wild pig came down for a walk, they say, the wild pig.'

(41) *Beeruch-juma,   sũrr,   nemich pam   k'ierbui-jum mug hee   nem sie-ji-m*
peccary-ADLZ   deer   bird   turkey-ADLZ   that in   thing be-PST.SG-DECL
haa-je-m   mug harea.
say-HAB-DECL   that area
'There were many things, such as peccaries, deer, birds, turkey, in that area.'

(42) *Magbaadeewia, hich bëe-wia   hich t'eer haubëe-wia,   t'eer dam jöoiraa*
afterwards   3SG come-ANT 3SG rifle carry-ANT   rifle DIM old
kitu-m,   haubëe-ji-m   haa-je-m.
be-DECL   carry-PST.SG-DECL   say-HAB-DECL
'Afterwards, a hunter came with his gun, an old little gun, they say that he carried.'

(43) *Magbaa, hich peta-ji-m   durr-ag;   mug hee*
afterwards 3SG go-PST.SG-DECL   place-DAT that in
beer   hook'a-m.   (...)
wild_pig   search-DECL
'Afterwards, he went to this place, he searched for wild pigs.' (...)

Abbreviations

1	1st person	DIM	diminutive	NMLZ	nominalizer
2	2nd person	EMPH	emphatic	PL	plural
3	3rd person	ERG	ergative	POSS	possessive
ADLZ	adjectivalizer	FUT	future	POL	polar
ABL	ablative	FOC	focus	POT	potential
ABS	absolutive	GENR	generic	prm	permissive
ANA	anaphoric	HAB	habitual	PROG	progressive
ANT	anterior	IMM	immediate	PRS	present
BEN	benefactive	IMP	imperative	PST	past
CAUS	causative	INC	inchoative	PURP	purposive
CERT	certainty	INCEPT	inceptive	SBJ	subject
CMPR	comparative	INS	instrumental	SG	singular
DAT	dative	INTRG	interrogative	SUB	subordinate
DECL	declarative	LOC	locative	VBLZ	verbalizer
DEF	definite	NEG	negation		

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