A grammar of Kakua
Bolanos Quinonez, K.E.

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Katherine Bolaños

A Grammar of Kakua

This book is a linguistic description of Kakua, a language spoken in the linguistic area of the Vaupés, in Northwest Amazonia, eastern Colombia. The language is a member of the small Kakua-Ṉɨkak language family. Its speakers live in inland forest settlements. Two main settlements are home to most of Kakua’s approximately 250 speakers.

Kakua (~kak-~wa, person-PL ‘people’) is the self-denomination used by the Kakua people to refer to themselves when speaking with other non-Kakua people. Their native autonym is Bára /bâɾa/.

The Kakua people are located in a well-known multilingual area: the Vaupés. Kakua shares many fascinating linguistic features with other Vaupés languages. These include a complex evidentiality system, an abundance of TAME marking, a system for noun classification, verb serialization, and differential object marking, among others. Kakua people also share many cultural traits with their areal neighbors, such as mythological and folk stories and cosmological deities. However, other linguistic features and cultural traits are unlike those found in many of Kakua’s neighboring languages; for example, only a handful of languages in the area, Kakua being one of these, are reported to have closed syllables and phonetic postnasalization of voiced obstruents in coda position. The mythological origin of the Kakua people, unlike their Eastern Tukanoan neighbors, situates them in the depths of a sacred waterfall somewhere in the Aiarí River in the Alto Rio Negro Region of Northwest Amazonia.

This grammar not only consists of a synchronic description of the language, but it also explores possible diachronic and contact-induced change. In particular, it offers scenarios that might explain the reasons why Kakua is in many aspects similar to genetically unrelated neighboring languages, while divergent in others.

This grammar is based on data collected by the author during many visits to Kakua villages starting in 2009.
A Grammar of Kakua
A Grammar of Kakua

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For the Kakua people,
and those who left.
Y para mi papi y mami, que
permanezca lo bello.
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Abbreviations

1/2/3 first/second/third person
ADJVZ adjectivizer
A.NMLZ agent nominalizer
AUG augmentative
ASS assertion
ASSOC.PL associative plural
ASSOC.SG associative singular
CL classifier
COL collective
COM comitative
COP copula
D.S different subject
DECL declarative
DEM demonstrative
DIM diminutive
DIR directional
DIST distal
DUB dubitative
EMPH emphatic
EMPHZ.TAG emphizer tag
EVID evidential
F feminine
FRUST frustrating
FUT future
FUT.INF.EVID future inferred evidentiality
HAB habitual
IMP imperative
IMP2 imperative on benefit of someone else
INF.EVID inferred evidential
<table>
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<tr>
<th>Abbreviation</th>
<th>Description</th>
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<td>IMM.FUT</td>
<td>immediate future</td>
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<td>negative imperative</td>
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<td>nominalizer</td>
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<td>non sensorial evidential</td>
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<td>object</td>
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<td>plural collective</td>
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<td>same subject</td>
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<td>SP</td>
<td>Spanish word</td>
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<td>subordinator</td>
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<td>TEL.PROG</td>
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<td>TERM</td>
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Chapter 1

Introduction: Kakua and its speakers

1.0 Introduction

Kakua is an Amazonian language spoken in the linguistic area of the Vaupés, in Northwest Amazonia, eastern Colombia (the Ethnologue/ISO 639-3 code for Kakua is cbv; the WALS code is cac).

The language is a member of the small Kakua-Nikak language family.\(^1\) Its speakers live in inland forest settlements. Two main settlements are home to most of Kakua’s approximately 250 speakers. The largest of these two settlements is Wacará\(^2\), with 183 individuals.\(^3\) Wacará is located between the Vaupés and the Querarí Rivers in Colombian territory approximately 100 kilometers to the east of Mitú, near the Brazilian border (see Map 1 below).

The second bigger Kakua settlement is Nuevo Pueblo, which is an inland forest village between the Vaupés and the Papurí rivers. The number of inhabitants of this village is approximately 40 – 45 individuals.

About 10-15 other speakers of Kakua live scattered either in villages inhabited by speakers of Eastern Tukanoan languages (a neighboring language family), or on their own in remote interfluvial settlements.

The present work undertakes a grammatical description of the Kakua language. The description is based mainly on dialects spoken in the Kakua village of Wacará. Kakua is divided into two main dialect areas (see §1.6 below), in each of these areas, there are some clan-specific varieties.

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\(^1\) Formerly classified as a member of the ‘Makú’ language family. See Epps & Bolaños submitted for a discussion on the classification of the ‘Makú’ family and a revision to the family name.

\(^2\) Wacará is a Nheengatú toponym with a Spanish translation of Caño Garza or Heron River Stream. The Kakua name is a literal translation: MáliɁ Lab ‘heron river.stream’.

\(^3\) By August 2015.
1.1 Linguistic profile of Kakua

Many of Kakua’s grammatical features and its lexicon are shared with its sister language Nikak. Additionally, a good number of grammatical features, such as verb serialization, a complex system of evidentiality distinctions, and a set of forms that serve as noun classifiers, are also found in other neighboring languages spoken in the Vaupés linguistic area.

Kakua has a set of 17 contrastive consonants and 5 vowels (see the discussion on vowels in Chapter 2). Contrastive contour tones are a salient feature of Kakua’s phonology. The preferred syllable structure is CVC, while some syllables are of the type CV and V. Most morphemes are monosyllabic. Phonologically heavy morphemes are at the most bisyllabic, while morphemes having three or more syllables are almost infallible indicators of an element borrowed into the language, or indicators of a morphological fused compound. Bisyllabic roots preferably have vowel harmony, with both vowels having the same quality in both syllables. Primary stress is assigned to the first syllable of the leftmost root of the word, and a secondary stress is assigned to the last syllable of the last element of the word. Nasalization in Kakua is a property of the entire morpheme. There are morphophonological processes such as epenthesis of vowels, or deletion of some voiceless stops when these occur across morpheme boundaries.

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4 Map drawn by Thiago Benucci.
The morphology of Kakua is highly agglutinative (especially in its verbal morphology), with a combination of head and dependent marking. The language is predominantly suffixing, with a few prefixes occurring exclusively on the verb. Kakua has cross-referencing proclitics that agree in person and number with the Subject/Agent argument of the clause. Third person singular referents have, additionally, gender agreement of feminine or masculine. Roots are often compounded to form new words.

Parts of speech in Kakua can be divided into open classes (nouns and verbs), and closed classes (adjectives, adverbs, numerals, interjections, and other particles).

Kakua nominal categories include number, classifiers, diminutive and augmentative distinctions, and case marking. Nominalization is a highly productive strategy to derive nouns from verbs. Animacy is particularly relevant for the system of differential object marking and differential number marking. There are no prefixing positions in the noun template, unless additional derivational processes have been applied (Chapter 4).

Nouns can be further subdivided into alienable and inalienable classes, as is evident from the system of possession marking (Chapter 5).

Most of Kakua morphology occurs in the verbal construction. There, prefixes, suffixes and enclitics encode all of the tense, aspect, mood, and evidentiality (TAME) distinctions (clitics conveying TAME distinctions can also occur on other word classes). Likewise, valency changing morphemes, verbal negation, cross-referencing proclitics, and many markers of discourse also occur in the verb construction. Verb roots can group together in a very productive grammatical strategy of verb serialization.

Kakua’s most common constituent order is verb-final (S)OV, although other orders are also allowed. It has a nominative-accusative alignment system.

1.2 Sociolinguistic setting

The sociolinguistic context presented in this section is restricted to the Kakua group in the village of Wacará, given that my work to date has been carried out primarily with this group. Although a few fieldtrips included visits to the Kakua village of Nuevo Pueblo, in the interfluvial region between the Vaupés and the Papuri Rivers, most of the data contained in this work, and upon which this grammatical description has been built, comes from speakers residing in the village of Wacará and its surroundings.

Kakua ( ~kak-~wa, person-pl. ‘people’) is the self-denomination used by the Kakua people to refer to themselves when speaking with other non-Kakua people. Their native self-denomination is Bára5 /bâɾa/ [bâɾa].

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5 This is a distinct group from the Bará people, speakers of an Eastern Tukanoan language of the Vaupés, spoken in the Pirá-Paraná region. The etymology of this ethnonym is not clear.
A Grammar of Kakua

The Kakua people have been locally referred to as Makú de Cubeo, Makú de Desano, or Makú de Wanano, or generally as ‘Makú’. In the literature, they have also been referenced as Bará (Silverwood-Cope, 1972) and as Cacua.

The term ‘Makú’ has been used by the River people in the Vaupés region to refer to any forest-dwelling group of people, or people from the forest in general, regardless of their ethnicity or language (c.f., Jackson 1983:149, and other discussions found in Ospina 2002 for Yuhup, and Epps 2008 for Hup. See also V. Martins 2005 on reference to the ‘eastern Makú’ branch, and Mahecha et al. 1996-97 on additional discussion of the term Makú. Epps & Bolaños submitted, offer also discussion of the term Makú used as a linguistic classification to group many unrelated forest-dweller peoples). The term Makú in itself has a very strong pejorative connotation, and is even used as an insult among peoples in the region. The term probably has an Arawak origin with the meaning of ‘those who do not talk’ or ‘do not speak’ (e.g. Arawak Baniwa-Curripaco ma-aku ‘NEG-speak’; see Koch-Grünberg 1906:877; see also discussions in Martins & Martins 1999: 251, Ramirez 2001a:198, Epps & Bolaños submitted. See also Ospina 2002:16 for alternative suggestions on the origin of the ‘Makú’ term).

As opposed to the ‘forest people’, the ‘river people’ live along the main rivers or main streams and cultivate large agricultural fields (compared to that of the Makú’s). Their protein sources are obtained primarily from fishing, and this has made them experienced river navigators able to face the wild rapids of the Vaupés River.

Forest people, in turn, are expert navigators of the land. They are perceived as quick and silent in the forest and able to face long nights walking and sleeping in the forest without being noticed by the river peoples. Their experience with water, however, is less developed and constantly invites mockery from the river peoples.

Forest people are both feared and looked down upon by River peoples. Because they are considered to be socially inferior, they are hardly considered worth referring to. However, because of their astuteness when dealing with the inhospitable forest, the same river people who look at them with pity, fear them as well.

Because the Kakua people have relied strongly on hunting and gathering for their subsistence they are also called ‘Makú’ (as mentioned, the term ‘Makú’ is applied to all the hunting-gathering forest peoples of the region). Different from most of their neighbors, peoples from Eastern Tukanoan and Arawak speaking groups, the Kakua peoples have a highly mobile lifestyle, engaging in long trekking, and hunting trips that can last from one day to many months. Additionally, family groups often organize trips to visit other family members either to the village of Nuevo Pueblo, or to inland places where they spend time together, hunting and gathering forest goods. These trips may last a few months, or even years.

The connotations of the term ‘Makú’ is thus negative now and as far as we know has always been so. In the broader social context of Colombia, being indigenous is synonymous to being an inferior person, poor and naïve. Calling someone an Indian in the urban context has very negative overtones. When indigenous peoples in the Colombian Vaupés become aware of the social embarrassment entailed in being indigenous, they claim not to be so, replying often
that the ‘Makú’ people are the real Indians, and not them (“indio yo? no, indios los Makú, yo no!”).

I have also witnessed a fight among children in an Eastern Tukanoan village of Desanos, where the ultimate insult culminating the fight was when one of the children involved called the other one ‘Makú’, reinforcing his insult saying “you are just like those Kakua savages!”

Likewise, in many of my trips to the area, whenever I have told people that I frequently visit the Kakua people, I am questioned with high astonishment: why do I want to visit forest people? and what is really so interesting about them? The implication is as if they were almost animal-like creatures.

When I first visited the Kakua village of Nuevo Pueblo, I was greeted by the Kakua in the Desano language. When I replied back speaking in Kakua people looked at me with disbelief and insisted a few more times in Desano. Once it was clear to them that I could not understand a word of Desano, the first person addressing me stepped back and with a look of unpleasant surprise on her face she asked again, this time in Kakua, “are you really understanding our language? Can you really not understand the language of the patrons?”. This seems to have been a big disappointment not only for the Kakua people, but for the Desano people as well. Many times during my stays in Nuevo Pueblo I was addressed in Desano, and people seemed not to be able to get over the fact that I could not speak Desano but was trying to make my way into Kakua.

Finally, from my own observations in the Tukano village of Piracuara at the basin of the Papuri River, the Hup people –also considered Makú, and with whom the Kakua people of Nuevo Pueblo have social relationships and even some cases of intermarriage– represent the more numerous population in the village. Nonetheless, the Tukanoans maintain control and make primary decisions in this village. At the local school, children are given meals twice daily during the school program. The Hup children will only eat after the Tukanoan children have already eaten and been served. This serves as a good illustration of the lower class position of the ‘Makú’ people vis à vis their regional neighbors.

These experiences are not very different from what has been documented in the ethnographic literature of the peoples of the area. For example, Jackson (1983:159) mentions specific cases when the ‘Makú’ are referred to as animal-like creatures.

The ‘Makú’ people overall are considered to have a socially inferior status, and their socio-economic relationship with the other indigenous groups of the area (Eastern Tukanoans and Arawak groups) is clearly unbalanced.

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6 The Kakua people of Nuevo Pueblo have had intense contact interactions with the Desano people in the nearby village of Wainamí. In fact, people from Wainamí may ‘make use’ of the Kakuas as they wish. If the Desano people are in need of force of labor, for example, they don’t ask for a favor from the Kakua; instead, they demand the number of Kakua people that they need and give them directions on what to do. Kakua people from Nuevo Pueblo refer to the Desano people from Wainamí as their patrons.
The Kakua people from Nuevo Pueblo readily recognize their Desano neighbors as their patrons. The Kakua people of Wacará also refer to other groups as their higher patrons, and in my observations, many times the Kakua people would behave as subjects ready to obey their Tukanoan ‘patrons’ when faced with a situation in which a Tukanoan person is present, although there are many nuances in the Kakua-Tukanoan relations that are subject to anthropological and ethnographic research.

The Kakua village of Wacará is likely to be a very recent settlement. It can be said that only the younger generation has been born in the village. Other generations of around 30 and above can (nearly all) remember their previous settlements and how they did not live in large groups, and instead were small bands of clans or even just a single family living on their own in the deep of the forest. Silverwood-Cope (1972) documents three regions where the approximately 200 Kakua, Bára-Makú people, were distributed. One of these three regions was located along the tributaries of the Papurí River; it was inhabited by 69 Kakua people belonging to two different clans (most of whom had Desano ‘patrons’). A second region, with 34 Kakua individuals belonging to five different clans, was located along the Caño Wacará and Caño Churubí, tributaries of the Querarí and the Vaupés rivers. A third region was located along the headwater streams of the Caño Carguero and Caño Cucura, in the upper Vaupés. This third region was inhabited by 21 ‘Kakua-Makú’ people. Two groups within this region, Silverwood-Cope reports, one of 28 people and a second one of 20, were recognized by their Cubeo and Wanano neighbors as being Bára-Makú, even when these two groups themselves claimed to be Cubeo and Wanano respectively (see Silverwood-Cope 1972:109).

The current settlement of the Kakua people in Wacará is attributed by the Kakua themselves to Marilyn Cathcart, a missionary from the Summer Institute of Linguistics (SIL) who arrived in the region in the early 1970s, together with her fellow missionary Lois Lowers. Both stayed for long periods in the area until the mid-1980s when SIL withdrew their missionaries from areas that were controlled primarily by the leftist guerrilla in Colombia. Cathcart and her partner provided some of the Kakua people with tools, dropped from the air from a helicopter, so that the Kakua would clean a space where the small SIL aeroplane would later land to bring the missionaries into the area.

Cathcart (1973) reports that, in her first contact with the Kakua people inhabiting the vicinity of Wacará, she counted only 13 adults and 6 children. With time, she would urge other Kakuas living in the surrounding area to join the first group and to form a village to settle.

Her enterprise was successful, and by the early 2000s most of the bands of Kakua had settled for good in the village of Wacará. Since then the population became larger as Kakua people from other bands who had remained by themselves in the forest, came to join those in Wacará. By my first visit to the village of Wacará in 2009 there were 123 inhabitants. As of August of 2015, their number had increased to 183 people.

Nearly all of the inhabitants of Wacará are Kakua. The exceptions are very few; these include one of the school teachers (a Cubeo man and his wife, who have
come to replace the former teacher, also Cubeo, who retired two years ago after 9 years of living in Wacará), and a Hup (Nadahup) woman from the Papurí village of Piracuara. Additionally, a young Wanano (East Tukanoan) woman married a Kakua man about 5 years ago. Although she identifies herself as Wanano, and insists on not having knowledge of the Kakua language, people address her in Kakua, since she is a daughter of a Kakua woman and a Wanano man, both of whom live in the Wanano village of Santa Cruz (a village located at the basin of the Vaupés River on the Colombian side), and it is known by everyone that her mother spoke to her in Kakua while growing up in Santa Cruz. Apart from this woman’s mother, a handful of other Kakua (principally women) live in the Wanano settlement in Santa Cruz.

Other Kakua people from the village of Nuevo Pueblo have also, now even more frequently than in 2009, started to settle in Wacará. Wacará people, they claim, are more organized, more “civilized”, and have fewer fights than Kakuas from Nuevo Pueblo.

All Wacará’s inhabitants (with the exception of the Cubeo schoolteacher and the young Wanano woman), are speakers of Kakua and use Kakua as their everyday communication language. Kakua people of Wacará, specially the elder generation, have speaking competence in at least one Eastern Tukanoan language, especially Cubeo and Wanano.

From my own experience in the field, I can also report a group of Kakuas living in the vicinity of Caño Cucura (near Mitú). These Kakuas recognized themselves as Cubeo people, although everybody else in the area called them “Makusitos” (‘Little Makú’). Their physical features also give them away. With tinier physical complexity than Eastern Tukanoans (they are smaller in size and slimmer when compared to Eastern Tukanoan peoples), Kakua peoples have finer facial features, lighter skin and lighter eye color. Their facial and body features are the first characteristics that disclose a Kakua descendent without need of speaking any language at all.

Despite having lived in Wacará for 9 years until early 2013, the former Cubeo schoolteacher claimed to not have learned the Kakua language. This, however, seemed to be due more to a cultural resistance towards learning the language of a forest people, than to a lack of competence in the learning of this language. His younger children, for example, who had grown up in Wacará, were speakers of the language, despite the resistance of their Cubeo parents. It was only when these Cubeo children moved to Mitú to attend higher levels of elementary school, that they became fully aware of the social shame that it meant for an Eastern Tukanoan to speak Kakua. Once they came back to Wacará for their school holidays, they would only speak Cubeo and claimed to have never understood Kakua. “Nosotros no entendemos de eso” ‘we don’t understand that’ they said. Also, by the end of the 2013 academic year, the same schoolteacher reported to be able to fluently speak Kakua. This sudden change was motivated by the newly introduced requirements from the local government that established that renewal of teaching contracts would only be granted to people who could speak the language of the village where they were working. The teacher did not have to prove his knowledge of the language, which was not doubted, since his retirement was approved before he had to renew his contract.
Silverwood-Cope (1972:174) discusses the socio-cultural practices of the Kakua people and describes them as an endogamous group. Although reporting some intermarriages with Hup speakers, Silverwood-Cope describes the Kakua people as having a complex marital system with restrictions on unions among members of the same clan. Such unions, if occurring, were described as “mik-hêm'-na” – ‘to eat oneself’ (Silverwood-Cope, 1972:176).

As of today’s situation, although it seems more relaxed than that described in Silverwood-Cope, marital unions occur preferably across clans, ideally clans with whom their ancestors have had other marital alliances.

The Kakua’s relationships with the Hup people are still quite strong as of today. These occur mainly between the Kakua people of Nuevo Pueblo and the Hup people of Piracuara. The Kakua denomination of the Hup peoples is [bäɾ-ʧɨ]’kakua-dew’, perhaps revealing the ancestral relations between these two groups.

At the time of Silverwood-Cope’s study in the early 1970s, very few marriages occurred between Kakua and Tukanoans; these few cases always involved Kakua women marrying with Tukanoan men. These marriages resulted in a shortage of women for Kakua men, and overall, Silverwood-Cope reports that the Bára-Makú expressed that there were not enough women to marry.

1.3 Contact

The Kakua people of Wacará, as opposed to the people of Nuevo Pueblo, experience at present a lower degree of daily contact with other non-Kakua speakers. While the people from Nuevo Pueblo may have daily contact with, primarily, their Desano neighbors, the Kakua people from Wacará have more sporadic encounters with their (more distant) Tukanoan neighbors (mainly Cubeos and Wananos). The encounters between Kakua people of Wacará and other non-Kakua peoples occur primarily during sport events taking place in surrounding villages or in Wacará, to which often the same villages are invited to compete in football, basketball and volleyball. These events occur at least twice a year and are financed by the local government. Whenever these encounters take place, even if in the village of Wacará, the Kakua people are rarely addressed by their non-Kakua neighbors. Rather, their non-Kakua neighbors give only commands to the Kakua people, and usually only imperatives are used when talking to them. The language spoken whenever addressing a Kakua person is that of the person addressing them (often an Eastern Tukanoan language), but in any case can never be Kakua.

Despite the multilingualism of the indigenous people of the region, any person who is not of Kakua ethnicity is not expected to speak Kakua. Furthermore, speaking a language of a hunter-gatherer is consciously discouraged and seen as a discrediting.

Speakers of Eastern Tukanoan languages have been documented as being highly multilingual in several Eastern Tukanoan languages. This multilingualism has been explained as a result of the linguistic exogamic practice described for the groups of speakers of these languages (descriptions on the multilingualism and the linguistic exogamic practice of Vaupés groups is found extensively in Sorensen 1967, 1984,
Introduction: Kakua and its speakers

Jackson 1974, 1976, 1983, and 1984). Unlike what has been documented for speakers of Eastern Tukanoan languages, Kakua speakers are not particularly multilingual. Bilingualism, instead, is more common than multilingualism. Silverwood-Cope (1972) documents high bilingualism of Kakua people in one of the Eastern Tukanoan languages with who they were in contact (i.e. Cubeo, Wanano, Siriano, and Desano).

The arrival of the SIL missionary also brought economic dependency of the Kakua people onto the goods and support that the missionary, unlimitedly, offered them. Until Cathcart’s death in 2014, the Kakua people of Wacará could constantly count on her for their needs and expenses. This represented a shift on their former economic relations with the neighboring groups, since they no longer needed to trade with their neighbors for crops and western goods. Historically, the Kakua people traded, with their farmers and fishers neighbors, hunted game and forest goods in exchange for agriculturally grown crops and manioc products (e.g. manioc starch, manioc bread, manioc flour) and western goods such as machetes, lanterns, and batteries. The Kakua people were now able to buy it from whomever they wanted. All in all, this represented an economic dependency shift, from having been economically and socially dominated by Eastern Tukanoan groups, they were now dependent on the SIL missionary.

This is not the case for the Kakua people of Nuevo Pueblo. Having not been christianized by missionaries (despite the unsuccessful efforts of catholic and evangelical missions), their subjugation to the Desano people, in almost all aspects of their daily living, leaves them nothing but a dependency on a patron-like group who can determine their economic and social lives.

During my last trip to the village of Wacará in 2015, the power generator was on almost five nights out of every week for six weeks. Since 2013 some Kakua people gather money by selling hunted game in Mitú, and use this money to pay a prepaid subscription to satellite television. The satellite was installed in 2013 and provides television signal intermittently, depending upon whether or not the monthly fee has been paid. This has caused then that some people take turns into providing the sufficient amount of gasoline needed for the power generator to function for 1-2 hours at night. The television programs attract many of the Kakua people to the social television-watching moment. Images are projected from a video beam onto a bed sheet, both provided by the SIL missionary. The preferred television programs are football games, national news, and whatever movie is being presented at any of the available channels. All of these programs are displayed in Spanish. Many times I have encountered the rather strange situation in which a group of people is watching images without the volume on. When the heavy rain strikes, the satellite signal may be lost for days or even weeks.

Most of the younger generation of Kakua speakers in Wacará today, however, are basically monolingual in Kakua, probably due to their recent settlement in the relatively isolated community of Wacará, which has reduced the contact of the Kakua people with other language groups. Some of the younger people have varying degrees of competence in Cubeo, from limited to fluent, and many have some knowledge of Spanish as well, while only a handful of Kakua young people can fluently speak Spanish and/or Cubeo. Older generations are still bilingual primarily
in either Cubeo or Wanano. A few more are fluently bilingual in Desano or Siriano, and a smaller number of people can also understand and speak other Tukanoan languages at various levels.

Ethnohistorical facts explain the preferred bilingualism in the Desano, Siriano, Wanano and Cubeo languages. The Kakua people believe that after their mythological origin in Ipaná Cachivera, near Ayari, in Brazil, they walked through the forest, migrating west, into Colombian territory. They first settled for short periods of times in the surrounding areas of Caño Leche (him-at-da? exist-NMLZ-CL:ROUND or ‘the hill where they were/of their existence’). When game started to become scarce, they went into the forest again, to find a place to hunt, settling in Carurú this time, just a few days’ walk from Caño Pajarito, close to the village of Santa Cruz. Today, this village is one of the largest Wanano settlements in the Colombian Vaupés. Formerly, however, this same village was primarily a Cubeo settlement, and because the Cubeo and Wanano regularly intermarry, these two were the predominant languages spoken in the village.8

As told by one of the eldest Kakua from the Wacará village before he passed away in August of 2015, during the times when the Kakua people of Wacará inhabited the surrounding territories of Santa Cruz while living in the Caño Pajarito area, they actively engaged in socio-economic (and little marital) interactions with the Wanano and Cubeo population of Santa Cruz. It is more likely that this close socio-economic interaction with the peoples of Santa Cruz encouraged the bilingualism of the Kakua people, especially in Cubeo and Wanano, both Eastern Tukanoan languages.

The Kakua people of Nuevo Pueblo, on the other hand, are still at present in a strong (unbalanced) socio-economic relationship with their Desano neighbors in Wainambí (who themselves have intermarriage relationships with Sirianos, living also in Wainambí). It is important to note here that the Kakua people from Nuevo Pueblo frequently make visit trips to the village of Wacará, and many of these visits result in a stay that can last years. Although my visits to the village of Nuevo Pueblo were never of long periods, it was very obvious that the Kakua people in the village were very competent in Desano – but not so much in Spanish, in spite of having had a Catholic priest living among them for nearly two years, who did not fully master Kakua and imparted his Catholic mission in Spanish.

Contact with other Tukanoan groups may also have taken place; however, the contact influence from the four mentioned groups is dominant given the strong historical social-cultural relationship discussed. As mentioned before, the degree of contact of Kakua people from Wacará with other Tukanoan groups seems to be lower compared to what has been described for previous times.

8 The trajectory of the migration and Wanano and Cubeo relationship with Kakua were told by the oldest Kakua speaker in the community of Wacará and reaffirmed by the community’s leader and the second oldest authority. This migration and the cultural and historical relationships have not been further investigated.
In 2009, only a few Kakua teenagers (about four) attended the boarding school in the Wanano village of Santa Cruz. Another group of probably four or five young adults were attending an advanced high school program implemented by the Colombian government and directed to adults who hadn’t attend school education during their childhood. This group traveled one Friday a month to Mitú, the Capital city of the Departamento del Vaupés, to attend classes where adults from other indigenous groups were also enrolled in the same program. I do not have exact information about the ethnicity or the languages spoken by the other adults attending the government school program; however, what I can say is that classes are held in Spanish, by teachers who are native speakers of Spanish.

As of today, the number of students has increased. By August of 2015, five young Kakua were attending the boarding school in Mitú, whereas other six had dropped out but attended the same boarding school in the years between 2010 and 2015.

In 2009 the village of Wacará had a school program supported by the Colombian Ministry of Education (Ministerio de Educación Nacional), where a Cubeo teacher taught grades first through third of elementary school. In this time, the teacher spoke in Cubeo to his pupils, and sometimes also used Spanish. The pupils, many of whom dropped after a few weeks, claimed to not be able to understand their teacher. In return, the Cubeo teacher claimed that the Kakua people had no interest in their children attending school, and instead were encouraged by their parents to participate in hunting trips or in taking care of their manioc fields. The number of students attending the village school was indeed very low. I do not have the exact figure, but it definitely did not surpass 15 children.

By the year of 2014, again the Colombian Ministry of Education, through the local government, had implemented in the village of Wacará a program for a kindergarten (“de cero a siempre” a governmental program aimed to include young children into the schooling system), and a pre-school program, while the elementary school expanded to attend grades first through fourth. For this, pedagogical materials are given to teachers in Spanish. They choose to teach in Kakua but many words and concepts are being passed on in Spanish.

The teachers chosen for this program had to be high school graduates, speakers of Kakua, but also competent in Spanish. The program has three Kakua teachers and one Cubeo teacher (who does not speak Kakua and switches between Spanish and Cubeo).

This new schooling program has been more successful. On my last visit in 2015 the kindergarten program had 9 children involved, while about 25 children were attending grades 1st to 4th of elementary school.

The kindergarten program involved children from the age of less than one year, up to 3 to 4 years old. Their mothers dropped the children off in the early morning while headed to their daily labors in the manioc fields. The kindergarten program takes place in a house built by the village people in 2011, initially intended as a nursing house as part of an international health project brought to the village by an NGO organization in association with the Panamerican Health Organization, as an effort to treat and prevent trachoma disease, of which quite a few Kakua people
have shown mild to severe stages. The financial support for the trachoma project ended in 2013 and the house built for the nursing home is now being used to host the kindergarten program.

The pre-school program, together with grades 1 and 2, are hosted at one of the village leader’s houses. There, the leader, who graduated from high school in the year of 2012 in the high school for adults in Mitú, follows the pedagogical material given to him by the Ministry of Education. He has decided to teach most of the contents in Kakua, and perhaps at this stage children are also introduced to Cubeo, since some words and also some directions are taught in Cubeo. The leader and teacher is also currently undertaking a self-motivated documentation of the botanical diversity in the surroundings of the village in order to teach his pupils the processes of collecting and preparing plants with medicinal healing purposes or for the prevention of illness.

Finally, grades 3 and 4 are hosted at the village school, a house with two classrooms at the front, and two bedrooms at the back where the Cubeo teacher lives together with his family. Grades 3 and 4 are taught jointly between the Cubeo teacher and a young Kakua high school graduate. The Cubeo teacher teaches most of his part in Spanish, and a smaller portion is taught in Cubeo. The Kakua young teacher teaches in Kakua and helps the Cubeo teacher translating from Cubeo or Spanish into Kakua.

In any case, the Cubeo teacher is regarded as the coordinator of the schooling program, including the kindergarten, and the pre-school program. All of the teachers involved are to report to him. Any interaction between people from the village and the Cubeo teacher is invariably done in Cubeo. Many times a Kakua speaker fluent in Cubeo is available to translate for and to the Cubeo teacher. Possibly the number of young Kakuas with competence in Cubeo is much higher than what I have reported, given that, as stated above, at least some Cubeo words are already being introduced in the pre-school program.

A group of Kakua leaders of Wacará travel frequently to Mitú, to carry out governmental processing to access health and educational benefits for the people of the village. These leaders are fluent in Spanish and Cubeo.

As for the older generation, their contact with Tukanoans today is very limited; and although they can still speak Cubeo, Wanano, Siriano and/or Desano, they only rarely use a language different than Kakua while in the Wacará village (unless addressing the Cubeo teacher).

An exception to this is a rather large family (grandparents, unmarried uncle, married uncle with his wife and two small children, mom, dad, and 5 girls), where the father has chosen to speak regularly to his daughters in Cubeo, arguing that they have to learn the language so that when the time comes and they are faced with a situation in which they must speak Cubeo, they “will not be scared and hide away”. The Cubeo-speaking sessions are directed to the younger daughters while the rest of the larger family communicate in Kakua only among themselves.

In sum, while the socio-economic contact between Kakua and other Vaupés groups was once, as described in the Kakua literature, strong and constant, the current situation of the Kakua people from Wacará is much less so, perhaps as a
consequence of their isolation and their economic independence from other neighboring groups.

As Kakua children are learning Kakua as a first language, it would appear that the language is fairly vital and strong. Nonetheless, given the reduced number of speakers, the rapid socio-cultural changes that the groups in the area are experiencing, the negative attitude towards speaking indigenous languages being generalized among indigenous groups in the area, and other environmental factors (e.g. uncontrolled mining exploration and exploitation, increased tourism, state and governmental programs of ‘development’, etc.), makes that the language is a severe case of an endangered language.

1.4 A problematic grouping: the linguistic classification of Kakua

For more than one century, Kakua has been grouped into a so-called ‘Makú’ family. Recent work has reconsidered the postulation of such a family and proposes, instead, a reevaluation of the grouping and a reassessment of the family name (cf., Epps & Bolaños submitted for a thorough discussion of the ‘Makú’ family and its putative members).

The term ‘Makú’ in itself served as a cultural category used by other groups of the area to refer to any group of peoples whose subsistence pattern was that of hunting and gathering. Apparently the ‘Makú’ term was not intended as a linguistic category for these groups. Nonetheless, many scholars insisted in referring to the ‘Makú’ peoples as members of what has been called a ‘Makú’ linguistic family.

The history of this classification is very interesting as novel data ever more available permits a re-evaluation of this unsupported language family.

The so-called ‘Makú’ family9 included the languages Kakua and Nikak, Hup, Yuhup, Dāw, Nadèb, and Puinave.

In 1906, Theodor Koch-Grünberg, an earlier German ethnographer whose works are benchmarks for many studies in the Upper Rio Negro region in general, visited the area where presumably Kakua, Dāw and Yuhup were spoken. He publishes then a list of words collected from these languages, calling them ‘Makú of Río Curicuriarý’ (presumably speakers of Dāw; see wordlist in Koch-Grünberg 1906:885ff), ‘Makú of Río Tiquié’ (presumably speakers of Yuhup; see wordlist in Koch-Grünberg 1906:885ff), and ‘Makú of Río Papurí’ (presumably speakers of Kakua inhabiting the surroundings of the Makú-Igarapé stream, a tributary of the Papurí, and the current local settlement of the Kakua peoples of Nuevo Pueblo (see the wordlist in Koch-Grünberg 1906:885ff).

Koch-Grünberg observes a relationship between Dāw and Yuhup: “many words are identical in both languages or have only minor dialectal differences, some of which are probably also attributable to the difficulty in recording” (Koch-

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9 Other names for this family are Makú-Puinave, Puinave-Makú (Greenberg 1960) and Makú stock (Loutkotka 1968).
When it comes to Kakua, however, he is very careful with proposing a relationship between Kakua and Yuhup (Makú of Río Tiquié) and Dâw (Makú of Río Curiruiyá), and rather includes in a footnote a list of 9 lexical resemblances between Yuhup and Kakua (Koch-Grünberg 1906:882 footnote).

Although Koch-Grünberg says that the sound of these three languages is similar, he is emphatic in saying that only with great reservations can Kakua (Makú of Papurý) be counted as a member of the same group (1906:882).

A few years later, Paul Rivet and Constant Tastevin provide data on Nadèb, and in 1920 they publish an article with the first proposal for a genetic relationship between Kakua, Yuhup, Dâw, and Nadèb, and they include Puinave.

Rivet & Tastevin’s proposal considered Kakua, Dâw and Yuhup (and Nadèb), as dialects of one and the same ‘Makú’ language, since, according to them, the relationship among these languages had already been established by Koch-Grünberg. Thus, the missing data in any of these ‘Makú’ dialects was not regarded since an entry from another ‘dialect’ of the same language was just enough for them to make their point on comparing the ‘Makú’ dialects with the Puinave language.

They also appeal to Koch-Grünberg’s careful notes when in 1913 (1913:471) he states that the sound of Puinave reminds him of the Makú languages from the Río Negro. Rivet & Tastevin, however, lack to include also Koch-Grünberg’s mention that the Puinave language had lexically nothing in common with the Makú languages of the Río Negro.

Rivet & Tastevin conclude that due to the similarities found (based strongly on pronominal forms that derive in large part from transcription errors, and other lexical entries that have themselves also many transcription flaws), and the “previous observations” of Koch-Grünberg, the ‘Makú’ dialects should be considered as genetically related to Puinave, and therefore they propose a Makú-Puinave family.

This affiliation proposed by Rivet & Tastevin remained widely accepted, mainly due to lack of additional data on these languages. With the addition of Hup and Nikak into the ‘Makú’ family classification, many scholars continued to refer to these languages as members of the family until the end of the 20th century (e.g. Nimuendajú 1950: 149, Greenberg 1960, Loukotka 1968 [1935]: 190-193, Mason 1950: 257, Kaufman 1990: 41, 1994: 60, Campbell 1997: 183).

The early 21st century saw a change in this, and many scholars began to question the ‘Makú’ classification or raised doubts about one or some of its members. Martins & Martins (1999) question the affiliation of Puinave to the ‘Makú’ family.

V. Martins (2005: 331-2, 341) suggests a relationship between two Makú branches: an Eastern Makú branch (Makú Oriental) in which he includes Hup, Yuhup, Dâw and Nadèb; and a Western Makú branch (Makú Ocidental) in which he includes Kakua, Nikak (see Cabrera et al. 1999; Mahecha 2009; Mahecha et al. 2000 for linguistic information on Nikak) and Puinave (see Girón 2008 for a linguistic

10 Original in German “Viele Wörter sind in beiden Sprachen identisch oder weisen nur geringe dialektische Unterschiede auf, die zum Teil wohl auch der Schwierigkeit bei der Aufnahme zuzuschreiben sind.”
description of Puinave). This latter branch, he states, cannot be clearly demonstrated although it is considered probable. Martins’ Eastern and Western branches together conform what he proposes as a Macro-Makú family.

Epps (2005:10; 2008) critically questions the ‘Makú’ grouping, and presents a skeptical view of affiliating Kakua, Nikak, and Puinave with what she suggested should be called a Nadahup family –the members of which are Hup, Yuhup, Dâw and Nadêb.

Finally, Girón (2008:428-435), also questioning the ‘Makú’ grouping (Puinave included), presents evidence that can play both in favor or against, a ‘Makú’ linguistic classification, and states that the evidence is inconclusive to claim that these languages form a linguistic family (here Girón includes Puinave, Kakua, Nikak, Hup, Yuhup, Dâw and Nadêb).

In 2009, with newly available data from Kakua, Bolaños & Epps (2009) take a critical position towards the classification of Kakua into the Nadahup language group, arguing that regular sound correspondences were not found to support such a linguistic relationship. Puinave was not included in Bolaños & Epps’ 2009 comparative study.

Only in 2015, with extensive data on Kakua, Hup and more novel data on Dâw, Epps & Bolaños (submitted) conclude that the linguistic evidence does not support a genetic affiliation between Nadahup and Kakua, Nikak and Puinave. Furthermore, they suggest a Nadahupan language family—which includes Hup, Yuhup, Dâw, Nadêb—, a Kakua-Nukakan family (including Kakua and Nikak, see Epps & Bolaños submitted), and Puinave as a separate language from these families. They strongly discourage the continued use of the term ‘Makú’ since it does not represent a linguistic classification and because of its highly pejorative social connotations for the speakers of these languages.

1.5 Kakua’s history of documentation

Silverwood-Cope (1972) provides a detailed, and by far the best, ethnographic documentation of Kakua. Additionally, other shorter ethnographic descriptions are given by SIL missionary Marilyn Cathcart (Cathcart 1973, and other unpublished manuscripts), and La Rotta (1977).

Like the ethnographic data, published linguistic data on Kakua are also very limited. Besides the work of SIL missionary M. Cathcart, published in the 1970s, only a small number of other references give linguistic data on Kakua. These are referenced below.

Cathcart (1979) has a description of the phonological system with special attention to tone. A joint paper on the encoding of clause linking and chronological progression in Kakua’s narratives is found in Cathcart & Levinsohn (1977).

In addition to these, one Kakua wordlists is published in Huber & Reed (1992), and another word list is provided by an early ethnographer exploring the area, Koch-Grünberg (1906). Other sources containing data of the language include a finished version of the New Testament finished in 2004 and published by Liga
Biblica (sponsored by SIL and developed through the years by Cathcart and Kakua consultants), a phonological comparison between Kakua and Spanish by La Rotta (1977), a Kakua narrative (by Cathcart and Lowers 1976), and a few words found in the superb anthropological description of the ethnic group, by Silverwood-Cope (1972).

Other sources make reference to the works listed above, and do not provide additional linguistic information on Kakua. These include Rivet & Tastevin (1920), who refer to the work of Koch-Grünberg (1906), Anderton (1989), and Meléndez Lozano (2000).

Until her death in 2014, Cathcart had her group of collaborators working on the translation of the Old Testament, as well as a dictionary of biblical references for Kakua-Spanish-Cubeo.

In 2010, Bolaños finished a phonological description of Kakua as her master’s thesis.

In 2014, the SIL publishes in their website a compilation of words and a small text (with translations in both English and Spanish), gathered by Cathcart (without a date), and a Swadesh list of Kakua gathered by Cathcart & Lowers (also without date).


1.6 Kakua dialects and clans

Kakua is subdivided into two main dialect areas: the Kakua spoken in the areas surrounding the village of Wacará, and the Kakua spoken in the areas surrounding Nuevo Pueblo. These two areas have some degree of dialectal variation occurring mainly in their lexicon and phonology.

The most salient phonological differences that I was able to perceive are a correspondence between the Wacará [ʧ] to [ts] in Nuevo Pueblo, and Wacará [a] to Nuevo Pueblo [ɨ]. The first of these two correspondences occurs everywhere in the lexicon where these sounds are found. The second correspondence occurs mainly in the following: Wacará kán3 ‘3SG.F’ and -kan ‘NEG’, corresponds to Nuevo Pueblo kín3 ‘3SG.F’ and -kin ‘NEG’. It also occurs with the assertion marker, which for Kakua of Wacará is =ka, while for Kakua of Nuevo Pueblo is =ki. 11 A discussion

11 Note that /a/, /ɪ/ and /k/ are attested phonemes in both dialects. With further research on dialectal variation it would be interesting to test if at some point there was a diachronic process in which
regarding differences in deixis between these two forms of assertion marking is found in Chapter 8.

Additionally, the Kakua people of Nuevo Pueblo express a spatial or temporal deictic difference in the assertion clitic. Whenever the referent is located or the event is occurring near the speaker, the assertion form of the clitic is =ka ‘ASS.PROX’; when the referent is located or the event occurs further away from the speaker, the assertion form is =ki ‘ASS.DIST’.

Another phonological difference between the Kakua spoken in Wacará and the Kakua spoken in Nuevo Pueblo, is that the Wacará varieties have completely merged the /o/ and /u/ phonemes into one single /u/ phoneme. The difference is maintained in the varieties of Kakua spoken in Nuevo Pueblo.

Given that my work concentrated on the village of Wacará, at this point I cannot provide further details on dialectal variation. For example, no grammatical features such as morphosyntactic or further phonological features were studied during the time when the data for this grammar was being collected.

In each of the dialect areas, different clans also have different clan-dialect variations. This was not studied either. Below I only list the clans of speakers of the Kakua spoken in Wacará. Some of these clans, such as the hɨwɁwã clan are originally from the area of Nuevo Pueblo, and speakers of this clan, though having been born in Wacará, still use many of the dialectal differences (lexical and phonological) found in the Kakua variety spoken in Nuevo Pueblo.

All Kakua clan names are invariably marked with the plural number marker for animate entities –wã ‘PL.AN’:

Table 1.1 Kakua clans in Wacará

<table>
<thead>
<tr>
<th>CLAN NAME</th>
<th>CLAN TRANSLATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ɂɨ́ɁwẽɁwã</td>
<td>‘clan children of the blowgun’</td>
</tr>
<tr>
<td>jedẽwã</td>
<td>‘clan parrot’</td>
</tr>
<tr>
<td>m斧beʔwã</td>
<td>‘clan boa’</td>
</tr>
<tr>
<td>dãñjitiwã</td>
<td>‘clan beading’</td>
</tr>
<tr>
<td>hɨwɨwã</td>
<td>‘clan bird’</td>
</tr>
<tr>
<td>tõjdaʔwã</td>
<td>‘clan bitter manioc’</td>
</tr>
</tbody>
</table>

According to the Kakua speakers of Wacará, most of them considered that the most conservative variety of Kakua was that spoken by the tõjdaʔwã clan. They, it was said, are the ones who still speak like the forefathers, with strong tonal distinctions and a slow paused speech, the tõjdaʔwã clan “almost don’t erase sounds” when speaking.

a merger of /i/ and /u/ occurred in one dialect, conditioned by preceding /k/, giving birth to the sole form =ka in the variants of Kakua spoken in Wacará, and keeping the difference of =ka ~ =ki in the variants of Kakua spoken in Nuevo Pueblo.
A correspondence that I did find between the tõjdaʔwã clan and the rest of the clans in Wacará, however, was that many words that started with the combination of sounds [ʧa] would be pronounced as [ha], where the sound [ʧ] would correspond to [h]. The word [ʧãh] ‘do’, for example, is invariably pronounced [hãh] ‘do’ by the tõjdaʔwã clan. Also, the intensifier which is pronounced [=tiɁ] ‘INTS’ in all other clans, is pronounced as [=ti] by members of the tõjdaʔwã clan.

I look forward to future work focusing on the dialectal variations in Kakua, and exploring the diachronic and synchronic developments that a dialectal study can help explain.

1.7 Field work and data collection

This grammar is based on data collected during field trips to the village of Wacará, and a few short visits to the village of Nuevo Pueblo, in Vaupés, Colombia. These field trips took place between 2009 and 2015. The total amount of time spent in the field was of 19 months. The longest time spent in the field was in 2011, when I stayed for a period of 5 months, with a few breaks of 2-3 days spent in Mitú to make back-ups of the data and communicate with my family.

Getting to the Kakua village of Wacará from Mitú takes one day, including a boat ride of approximately 3 hours and a walk through the forest of about 3-4 hours. The village of Nuevo Pueblo is at 5 days walk from Mitú, though the travel times varies depending upon the weather conditions and the weight being carried.

Once in either village, there are no communication means, and no electricity to recharge the equipment. Thus, a solar panel is an indispensable item that must be taken along. Though the village has a power generator, gasoline must be brought from Mitú. Therefore, during many weeks one can remain without the possibility of fast charging of the equipment through the power generator. This implies that working with a computer to translate and digitalize the data is not always possible.

The data were recorded using digital audio recorders (Tascam DR40, Tascam DR80, and Zoom H4n) and a Sennheiser external unidirectional microphone for elicitations and sometimes for recording narratives). During the field trips of 2012-2014, I also had a portable computer with a long-lasting battery. I was then able to transfer the digital data to external hard drives.

All of the editing, transcriptions and cataloging of the data was carried out in collaboration with Kakua speakers. These sessions took place either in the village (for the trips when I had a computer and sufficient power source available), in Mitú (I traveled with the speakers to Mitú and spent there several weeks doing transcriptions, translations and editing of materials), or even during visits of the Kakua people to Cali, when they came to meet my family and friends, my place of origin, and my living conditions.

My Kakua corpus comprises around 67 hours of recorded material. This material includes texts such as narratives, traditional mythological stories and stories about the origin of the Kakuas, stories about past events, spontaneous conversations, songs, ‘bed-time’ stories, directions and commands on how to perform particular
cultural acts, the making of particular cultural objects, or directions in the preparation of botanical or organic medicines, and a limited number of fragments of ritual speech and oratories. Additionally, 9 hours of recordings document elicitation sessions.

Only a small portion of the recorded data was transcribed in a digital format, while most of the data remains in field notebooks. Most of the text transcribed into digital format concerns stories, anecdotes, directions and commands, mythological stories of origin, and spontaneous conversations. The recordings of ritual speech and ritual or sacred oratories have been declared to have restricted access by the Kakua people and no transcription of these genres was attempted.

The digital transcriptions and translations were made using Toolbox. A few texts are transcribed and aligned in ELAN.

A lexicon of 1860 lexical entries was electronically created using a basic format in Toolbox dictionary. The Toolbox dictionary helped creating interlinear glossing which speeded up the process of glossing and editing.

The data were gathered from texts, class notes, and elicitation questionnaires, such as Dahl (1985) for the tense, aspect, and mood questionnaire, or some of the elicitation materials developed by the Language and Cognition group at the Max Planck Institute for Psycholinguistics, such as the picture series for positional verbs (Ameka et. al. 1999).

Many elements of the lexicon were obtained through elicitation of different wordlists, the lexical dataset of the project Dynamics of Hunter and Gatherer Language Change (Bowern et al. 2015), and vastly enriched through the years by the analysis of texts and my daily interactions with the Kakua people.

Translations include a Spanish and an English one.

In August 2015, through a project financially supported by the Firebird Foundation concerning the documentation of the traditional knowledge of Kakua botanical diversity and the medicinal uses of plants, two Tascam audio recorders, microphones, two computers and two video cameras were taken to the village. The Kakua people are now actively using these devices to record, besides the data aimed at by the project, additional linguistic data from the few remaining Kakua elders.

Copies of all the recorded data were given to the leaders of the Kakua village of Wacará. Additionally, the new computers have been handed over containing copies of all the recordings and photos collected during the years of 2009-2015.

The data collected during 2009-2010 was archived at the Archive of the Indigenous Languages of Latin America (AILLA).

An ethics protocol was signed at the beginning of this project in 2009.
Chapter 2
Phonology

2.0 Introduction

This chapter presents a preliminary description of the phonology of Kakua. Kakua shows very interesting phonological features on both the segmental and the suprasegmental levels. The phonological system of Kakua is characterized by a relatively large segmental inventory—compared to that of its neighboring Tukanoan languages—and contrastive tone and nasalization.

The most common syllable structure is CVC. Most morphemes are monosyllabic and bisyllabic at the maximum.

This chapter is divided into four major sections. Section 2.1 presents a description of Kakua’s segmental phonology. The syllable structure of Kakua is presented in 2.2. Suprasegmental phonology is presented in Section 2.3. Finally, section 2.4 presents some aspects of morphophonemics in Kakua. A summary of the chapter is given in 2.5.

2.1 Segmental phonology

2.1.1 Introduction

This section presents a basic description of Kakua’s segmental inventory. Compared to most of its Tukanoan neighbors, Kakua shows a fairly large inventory of consonants. While the inventory of Kakua consonants phonemes have seventeen consonant, most of the neighboring Tukanoan languages display an average of ten to twelve consonant phonemes (see Barnes 1999:211).

The vowel inventory in Kakua, on the other hand, with its five contrastive vowels, is quite typical for the languages of the Vaupés area, when compared to East Tukanoan languages. The Nadahupan languages Hup and Yuhup, however, show a much larger inventory of vowels, see Epps (2008) for Hup; Ospina (2002) for Yuhup; see also Barnes (1999: 211) for an overview of the phonemic inventories for Eastern Tukanoan languages, where a six-vowel system is proposed for proto Eastern Tukanoan: i, ɨ, u, e, o, a.

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1 The analysis presented here is part of my master’s thesis from 2010. A few minor revisions were made to the version of 2010; these have to do primarily with the representation of the high mid vowel ɨ, the status of mid back vowel /o/, some morphophonological processes, and morphological glosses. For the rest of it, at this point I continue to agree with the analysis of the phonology presented before since it best accounts for the data presented both in 2010 and for the data gathered in the years that followed.
None of the phonemes in Kakua’s phonemic inventory contrast in terms of nasalization. As discussed in detail in §2.2 below, nasalization is a property of the morpheme, and is not a property of the individual segment.

In the following discussion, the examples are given in both phonemic and phonetic transcriptions (represented using dashes and brackets, respectively).

### 2.1.2 Vowels

The Kakua vowel inventory consists of 5 contrastive vowels.

**Table 2.1: Kakua’s Vowel Inventory**

<table>
<thead>
<tr>
<th></th>
<th>Front</th>
<th>Central</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>i</td>
<td>i</td>
<td>u</td>
</tr>
<tr>
<td>Mid</td>
<td>e</td>
<td></td>
<td>(o)</td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td>a</td>
<td></td>
</tr>
</tbody>
</table>

In the inventory presented in Table 2.1 above, a mid back vowel /o/ is included as a sixth marginal phoneme. The status of this phoneme is discussed below in this section.

The vowel inventory does not have contrastive nasal segments; in nasal contexts all of Kakua’s five vowels can occur.

The contrasts distinguishing Kakua vowels in oral contexts are illustrated in Table 2.2 below with (near) minimal pairs:

**Table 2.2: Kakua’s contrastive vowels in oral contexts**

<table>
<thead>
<tr>
<th></th>
<th>i</th>
<th>i</th>
<th>u</th>
<th>e</th>
<th>a</th>
</tr>
</thead>
<tbody>
<tr>
<td>/i/</td>
<td>/i/</td>
<td>/ɪʔ/</td>
<td>/ŋu/</td>
<td>/ŋeʔ/</td>
<td>/ŋaʔ/</td>
</tr>
<tr>
<td>‘sprout’</td>
<td>‘cross’</td>
<td>‘to’</td>
<td>‘aunt’</td>
<td>‘be’</td>
<td></td>
</tr>
<tr>
<td>/bik/</td>
<td>/bik/</td>
<td>/bik/</td>
<td>/bìk/</td>
<td>/bìk/</td>
<td>/bìk/</td>
</tr>
<tr>
<td>‘one’</td>
<td>‘caña’</td>
<td>‘grow’</td>
<td>‘soil’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/kiʔ/</td>
<td>/kìʔ/</td>
<td>/kùʔ/</td>
<td>/kèʔ/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘CL:CYLINDRICAL’</td>
<td>‘sweet’</td>
<td>‘give’</td>
<td>‘2PL’</td>
<td>‘centipede’</td>
<td></td>
</tr>
</tbody>
</table>
As stated above, vowels do not contrast in terms of nasalization at the segmental level. Table 2.3 below illustrates Kakua’s vowels in nasal contexts. Note that all of Kakua’s five vowels can occur in both oral and nasal environments:

Table 2.3: Kakua’s contrastive vowels in nasal contexts

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>‘seed’</td>
<td>‘be painful’</td>
<td>‘river shrimp’</td>
<td>‘middle/half’</td>
<td>‘middle/half’</td>
<td></td>
</tr>
<tr>
<td>/t̥i/ [t̥i]</td>
<td>/t̥i/ [t̥i]</td>
<td>/t̥i/ [t̥i]</td>
<td>/t̥i/ [t̥i]</td>
<td>/t̥i/ [t̥i]</td>
<td></td>
</tr>
<tr>
<td>‘be greasy’</td>
<td>‘FRUSTRATIVE’</td>
<td>‘throw’</td>
<td>‘oposite side’</td>
<td>‘swim’</td>
<td></td>
</tr>
<tr>
<td>‘liana’</td>
<td>‘TERMINATIVE’</td>
<td>‘be fermented’</td>
<td>‘continue/ follow/be finished’</td>
<td>‘raise/increase in size’</td>
<td></td>
</tr>
<tr>
<td>‘to smoke’</td>
<td>‘return/do again’</td>
<td>‘blow air’</td>
<td>(inanimates)</td>
<td>(inanimates)</td>
<td></td>
</tr>
<tr>
<td>‘father’</td>
<td>‘carry/bring/ take’</td>
<td>‘to dream’</td>
<td>‘to smell bad/body odor’</td>
<td>‘climb/go up’</td>
<td></td>
</tr>
<tr>
<td>/d̥i/ [d̥i]</td>
<td>/d̥i/ [d̥i]</td>
<td>/d̥i/ [d̥i]</td>
<td>/d̥i/ [d̥i]</td>
<td>/d̥i/ [d̥i]</td>
<td></td>
</tr>
<tr>
<td>‘sugar cane’</td>
<td>‘rapids/waterfall’</td>
<td>‘similar/ related’</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>/h̥i/ [h̥i]</td>
<td>/h̥i/ [h̥i]</td>
<td>/h̥i/ [h̥i]</td>
<td>/h̥i/ [h̥i]</td>
<td>/h̥i/ [h̥i]</td>
<td></td>
</tr>
<tr>
<td>‘to shine’</td>
<td></td>
<td></td>
<td>‘mountain’</td>
<td>‘to stand up/wake up’</td>
<td></td>
</tr>
</tbody>
</table>
Table 2.3. Kakua’s contrastive vowels in nasal contexts

<table>
<thead>
<tr>
<th>~i</th>
<th>~l</th>
<th>~u</th>
<th>~e</th>
<th>~a</th>
</tr>
</thead>
<tbody>
<tr>
<td>~bɪɨ / [mɪː]</td>
<td>‘3sg.fem’</td>
<td>/bɪɨ / [mʊː]</td>
<td>‘wild pig’</td>
<td>/bɪɨ / [mʊː]</td>
</tr>
<tr>
<td>/ɪ / [mɪ]</td>
<td>‘to step on’</td>
<td>/ɪ / [mɪ]</td>
<td>‘cocoon’</td>
<td>/ɪ / [mɪ]</td>
</tr>
<tr>
<td>/ɪ / [mɪ]</td>
<td>‘mother’</td>
<td>/ɪ / [mɪ]</td>
<td>‘be afraid/scared’</td>
<td>/ɪ / [mɪ]</td>
</tr>
</tbody>
</table>

In Table 2.1, showing Kakua’s vowel inventory, a back mid vowel /o/ is included as a marginal phoneme. In a previous version of the analysis of Kakua, /o/ was treated as a marginal sound, occurring only in a limited number of words, as listed in (1) below. For the words listed below, speakers of Kakua in Wacará did not accept variations with [u]. This might indicate that /o/ occurs only in restricted contexts, namely when /o/ is followed by /a/, as in (1a, 1c, and 1e). This, however, does not account for the cases shown in (1b and 1d). 1d and 1e are very likely to be loans into Kakua (see below), which have adapted fully to the phonology of Kakua. The list presented below is not an exhaustive list of the words with /o/ in Wacará’s Kakua (see additional words in (6)), but there is no reason to believe that it is not representative. A study dedicated to the status of /o/ for Kakua speakers of Wacará, and comparison with speakers from Nuevo Pueblo is needed to further clarify this aspect of synchronic phonology of Kakua. Finally, note that speakers of Nuevo Pueblo also pronounced the words in the list in (1) below as [o]:

1) a. /hòa/ ‘downriver’
   b. /jakoʔ/ ‘crab’
   c. /gōa/ ‘nail’
   d. /horaʔ/ ‘banana’
Phonology 25

e. /koatá/ ‘white fronted spider monkey’ (Ateles belzebuth sp)²

Examples in (2) show that the word for banana, listed in 1d above, is a very likely a borrowed word in Kakua:

2) Kakua  Wanano  Tuyuca  English
[horaʔ]  [ho]  [hoʔo]  ‘banana’

During the years following the first proposal for Kakua phonology, I had the opportunity to compare some words between the Kakua varieties spoken in Wacará and the varieties spoken in Nuevo Pueblo in order to check for the status of this [o] sound. As a result, I propose that the [o] sound in fact occurs only marginally in the dialects of Kakua spoken in the village of Wacará (in limited contexts perhaps, see comment for the list of words in (1) above), while being attested for the Kakua varieties spoken in the village of Nuevo Pueblo. Examples are given in (3) below:

3)  Wacará  Nuevo Pueblo
a. tû́j  tốj  ‘type of bitter manioc’
b. mûp  mûp  ‘to rot’
c. hû́p  hû́p  ‘to dry’
d. juʔbâ  jö́bâ  ‘make something exit across an opposite side’

The extent to which [o] and [u] are or not in contrastive distribution for the varieties spoken in Nuevo Pueblo, is not assessed here. The data gathered was not sufficient as to show contrastive distribution. Instead, what it shows is that every instance of the [o] sound in Nuevo Pueblo, corresponded to [u] in the varieties spoken in Wacará.³ Nonetheless, it must be stated that not every instance of [u] in Wacará corresponded to [o] in Nuevo Pueblo, as shown in the following list:

4)  Wacará  Nuevo Pueblo
a. hû́ɓ  hû́ɓ  ‘to suck’
b. hû́k  hû́k  ‘get wet’
c. kû́ʔ  kû́ʔ  ‘give medicine’
d. dû́h  dû́h  ‘to fart’
e. bû́d  bû́d  ‘to cut’

Only two minimal pairs contrasting [o] and [u] for the Kakua of Nuevo Pueblo were found, and are shown in (5) below:

² koatá seems to be a regional Wanderwort, probably from an Arawak or Tupí-Guaraní source (see Epps, in preparation)
³ Recall that the words in the list in (1) were also pronounced with [o] in Kakua of Nuevo Pueblo.
5) a. mûmoʔ  
   ‘to plant big seeds’
   mûmuʔ  
   ‘type of mushroom’

   b. ʔâmoʔ  
   ‘to pack’
   ʔâmuʔ  
   ‘be happy’

For the Kakua varieties of Wacará, mûmuʔ serves to express both ‘to plant big seeds’ and ‘type of champignon’. Only context can disambiguate the meaning of this word. Also in Wacará, while ʔâmuʔ means ‘to pack’ or ‘organize inside a container’, the word expressing ‘be happy’ is wèj. Both ʔâmuʔ and wèj were accepted for the Kakua speakers of Nuevo Pueblo as words meaning ‘be happy’. I have not tested for whether or not a similar word with similar semantics is found in the surrounding languages of the area to infer a borrowing into Kakua.

Based on the contrasts presented above only, I propose, with reservations, that Kakua had /o/ as a contrastive sound that was lost as a contrast and became neutralized into one phonemic sound in the dialects spoken in Wacará, while remaining two different contrastive sounds in the Kakua dialects spoken in Nuevo Pueblo.4 The data in hand, however, are not sufficient to support this hypothesis and future dialectal studies are needed in order to have more evidence against or in favor of this hypothesis.5

For the moment being, the data at hand only supports the vowel inventory shown in Table 2.1 above for the Kakua varieties spoken in Wacará, where the back mid vowel [o] will be considered a marginal phoneme.

A phonological inventory for the vowels of Kakua dialects spoken in Nuevo Pueblo is given in Table 2.4 below.

Table 2.4. Vocalic inventory Kakua dialects of Nuevo Pueblo

<table>
<thead>
<tr>
<th></th>
<th>Front</th>
<th>Central</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>i</td>
<td>i</td>
<td>u</td>
</tr>
<tr>
<td>Mid</td>
<td>e</td>
<td></td>
<td>o</td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td>a</td>
<td></td>
</tr>
</tbody>
</table>

Given that the phonological analysis presented in this study was based exclusively on data from Kakua dialects spoken in Wacará, the vowel inventory used in this study is that presented in Table 2.1 at the beginning of this section.

---

4 As noted above, the merger of /u/ and /o/ in dialects of Wacará might not have occurred when /o/ is followed by /a/.

5 A comparison with Kakua’s sister language, Nikak, might also shed light on the unresolved status of /o/.
Most bisyllabic roots in Kakua have vowel harmony, whereby the same vowel quality is shared across the two syllables (see Section 2.4 below for description of exceptional cases of bisyllabic roots without vowel harmony).

### 2.1.3 Phonotactics of vowels

This subsection summarizes the distribution and restrictions of Kakua’s vowels.

The syllabic structure of Kakua roots is such that unexceptionally they must have an onset (see §2.2 below for a description of syllable structure). Thus, since roots of the type VC or V are not allowed, vowels do not occur in root initial position. Only suffixes can have syllabic structures of the type VC. In these type of suffixes, any vowel of Kakua’s vowel inventory may occur in initial position.

Vowel sequences do not appear to be a regular feature in the phonology of Kakua. Only a very limited number of vowel sequences have been found in the current lexical database, these are shown in (6) below. Note that many of these sequences also have /ɑ:/.

6) a. /pêa/ [pêa] ‘to finish’
   b. /hêa/ [hêa] ‘sky’
   c. /hoa/ [hoa] ‘down river’
   d. /bua/ ['bua] ‘heal’
   e. /jôaʔ/ [dʒôaʔ] ‘clean front yard’
   f. /hôaʔ/ [hôaʔ] ‘meet’
   g. /tôaʔ/ [tôaʔ] ‘approach’
   h. /ʔuat/ [ʔuat] ‘untangle a knot’
   i. /ʔũat/ [ʔũat] ‘prick with a finger into a small hole’
   d. /koatá/ [koatá] ‘white fronted spider monkey’ (*Ateles belzebuth* sp)

A diachronic evaluation of these words may help explain these unusual sequences of vowels in Kakua. The word for ‘finish’ for example, pêa, illustrated in (6) above has a similar meaning and at least part of the phonological form of the verb pê ‘be last’. It might be that Kakua pêa ‘finish’ derived from a compound of the element pê ‘be last’ and another postponed element (suffix, clitic, or root) that got lexicalized resulting in what is today considered one lexical word with an unusual sequence of vowels.

Additionally, for forms like koatá ‘spider monkey, sp’, in (5) and (1) above, may best be explained as a borrowing (see comment above).

Vowel length is not a phonemic feature of Kakua’s vowel inventory. Vowel length consistently occurs as a phonetic process in open syllables, especially in word-final positions /CV/ [CVː]:

7) /ʧi/ [ʧiː] ‘pineapple’
8) \( /{\text{jǔ}}/ \) měm = tiʔ \( \rightarrow /{\text{ʤǔː měm = tiʔ}}/ \) hépaʔ = ni \( \rightarrow /{\text{ʤǔ: měm = tiɁ hépaʔ = niː}}/ \) \\

armadillo 2SG = INTS \( \rightarrow /{\text{ʤǔː měm = tiɁ hépaʔ = niː}}/ \) answer = S,S \( \rightarrow /{\text{ʤǔ: měm = tiɁ hépaʔ = niː}}/ \) \\

‘Armadillo (nick name), you answer’

More sporadically, phonetic vowel lengthening also occurs in closed syllables with voiced obstruents and glides as codas \( /{\text{CV:C+glide}}/ \) \( \rightarrow /{\text{CV:C+glide}}/ \) \( \rightarrow /{\text{CV:C+voice}}/ \) \( \rightarrow /{\text{CV:C+voice}}/ \). This last instance of phonetic vowel lengthening in \( /{\text{CV:C/}}/ \) syllables occurs with variation among speakers. Thus, words such as \( /{\text{bûd}}/ \) ‘cut’ may be realized both as \( /{\text{bûːd}}/ \) or \( /{\text{bûd}}/ \). Likewise, words involving glides, such as \( /{\text{hûj}}/ \), may be realized both as \( /{\text{hûːj}}/ \) or \( /{\text{hûːj}}/ \).

In the previous version of Kakua phonology of 2010, I included a set of three lexical elements where glides combined to form a diphthong. These were shown in (9) below:

9) a. \( /{\text{hja}}/ \) \( \rightarrow /{\text{hjà}}/ \) ‘forest’
   b. \( /{\text{hjat}}/ \) \( \rightarrow /{\text{hjàt}}/ \) ‘place where light is reflected’
   c. \( /{\text{djat}}/ \) \( \rightarrow /{\text{njàt}}/ \) ‘everything/everybody’

Since then, I reevaluate two of these three forms, and present a different representation as shown in (10) below:

10) a. \( /{\text{hja}}/ \) \( \rightarrow /{\text{hjà}}/ \) ‘forest’
   b. \( /{\text{hì-at}}/ \) \( \rightarrow /{\text{hjàt}}/ \) (light.up-NMLZ) ‘place where light is reflected’
   c. \( /{\text{djàt}}/ \) \( \rightarrow /{\text{njàt}}/ \) ‘everything/everybody’

Note that for the set above, only the word for ‘forest’ \( /{\text{hjà}}/ \), remains as an exception (alternatively, this could also have been diachronically \( /{\text{hì-a}}/ \), where -a might have once been a suffix of some kind, now lost). The word for ‘a place where light is reflected’ was reevaluated and it was concluded that it was in fact a compound of the verb \( /{\text{hì}}/ \) ‘to light up’ and the nominalizer suffix -at. Likewise, a more careful phonetic analysis of the word for ‘everything/everybody’, unveiled a glottal voiceless occlusive that was previously not detected. The form is then reassessed and instead of the form \( /{\text{djàt}}/ \), I now correct it to \( /{\text{djàt}}/ \), where there is no diphthong for this word.
2.1.4 Consonants

Kakua has seventeen contrastive consonantal segments. The consonant inventory is given in Table 2.5 below:

Table 2.5 The Kakua Consonant Inventory

<table>
<thead>
<tr>
<th>Voiceless Stops</th>
<th>Bilabial</th>
<th>Dental-Alveolar</th>
<th>Palatal</th>
<th>Velar</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>p</td>
<td>t</td>
<td>k</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Voiced Stops</td>
<td>b</td>
<td>d</td>
<td>g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glottalized stops</td>
<td>bʔ</td>
<td>dʔ</td>
<td>gʔ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricatives</td>
<td>f</td>
<td></td>
<td>h</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral</td>
<td></td>
<td>l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximant</td>
<td>w</td>
<td>j</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glottalized Approximants</td>
<td>wʔ</td>
<td>jʔ</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>tf</td>
</tr>
</tbody>
</table>

Two of Kakua’s consonants, /f/ and /l/, are not encountered in morpheme-final position. The voiced velar stop /g/ and its glottalized counterpart /gʔ/, on the other hand, only appear in morpheme-final position. From a typological perspective, it is not unusual to find a gap in the voiced velar slot in the phonological inventory of a language (see for example Gamkrelidze 1975, Ohala 1983, Maddieson 1984). Nonetheless, it is indeed very interesting to note that in a large number of languages spoken in the Vaupés area, the velar voiced stop does not appear in morpheme-initial position (see e.g. Chacon 2014, Aikhenvald 2002), so Kakua’s restricted distribution of voiced velar /g/ and its counterpart /gʔ/ might respond to an areal feature. Glottalized consonants cannot occur in initial position. As for the rest of the other consonants, they can appear in morpheme-initial, medial, and final position.

Nasalization (see section §2.3.1) is a property of the morpheme, and morphemes are either fully nasal or fully oral. This suprasegmental feature predicts that voiced segments surface as fully nasal allophones in nasalized contexts or as oral when in oral contexts. The allophonic variations for voiced obstruents in oral environments, for example, have three different realizations: they can surface as pre-nasalized \[^{0}\text{C}_{\text{voice}}\] in morpheme-initial position, post-nasalized \[^{N}\text{C}_{\text{voice}}\] in morpheme-final position, and plain voiced when in intervocalic position. Across morpheme boundaries these voiced obstruents can also be nasalized as \[^{N}\text{C}_{\text{voice}}^{N}\text{C}\]
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or [C-\textsuperscript{N}C_{\text{voice}}]. The realization of voiced stops in oral and nasal contexts is discussed at more length in the subsection on voiced stops below (§2.1.2.3).

Kakua’s glottalized consonants (orthographically represented as C') are phonetically different from the conventional ejective consonants also represented as C' or C'' in other languages\textsuperscript{6}. Although they can have a subtle ejective realization, these glottalized consonants in Kakua can be more accurately phonetically described as having a laryngealization effect on the following vowel (when occurring in morpheme-initial position) or as unreleased consonants (when found in morpheme-final position). More discussion regarding this set of consonants is found below in §2.1.2.7.

Kakua’s inventory of consonants and their realizations show interesting similarities with other Vaupés languages. In addition to the restricted distribution of /g/ in Hup, for example, Epps (2005, 2008) has proposed a series of glottalized stops and glottalized glides. Also, Chacon (2014) reconstructs glottalized consonants for Proto-Tukanoan.

Likewise, the allophonic variation of nasals and voiced stops, as well as liquid [l] and/or flap [ɾ] as allophones of voiced alveolar /d/ is a very wide spread characteristic across Eastern Tukanoan languages in the Vaupés area (Aikhenvald 2007) (in Kakua /d/ has [ɾ] as an allophone and /l/ is a separate phoneme). Such phonological similarities may be motivated by language contact.

In addition to the phonological similarities to other languages of the region, Kakua’s inventory of phonemes also shows interesting differences, such as the labiodental fricative /f/ and lateral phoneme /l/ (see description below). Although they have a restricted distribution, these phonemes are in contrastive distribution with other sounds, thus supporting the analysis of these sounds as phonemes of the language.

2.1.5 Consonantal allophones and alternations

2.1.5.0 Introduction

The oral or nasal quality of the morpheme, position of the consonant within the morpheme, and/or the quality of adjacent segments are the more salient factors that could determine the characteristic of the allophonic variation of a given consonant. For example, if the consonant /j/ is found in a nasal context, its allophonic realization will have a [+nasal] quality but also a specific quality subject to its position within the morpheme. Its realization is then [ɲ] in morpheme-initial position and [j] in morpheme-final position.

It is interesting to note that word boundaries are very relevant in determining the surface realization of the consonant. For example, the word ʔäb ‘go up’ when elicited in isolation is pronounced [ʔaɓ\textsuperscript{e}], while when in a construction such as

\textsuperscript{6} In the previous 2010 version of this phonology, the glottalized consonants were represented only as C'.
ʔã = ʔã˘b-ap = be (3SG.M = go.up-PST = REC.PST) ‘he climbed up’, the same word is pronounced as [ʔã˘b] where the voiced obstruent is not postnasalized.

Kakua’s consonant inventory displays a wide range of different allophones depending upon their position in the morpheme, whether morpheme-initial, medial, or final.

In the subsections below, the allophones and the distribution of Kakua’s consonants will be discussed in more depth, and an illustration of the morphophonemic facts is presented in Section §2.4. Contrasts between phonetically similar consonants, particularly those having a similar place of articulation, will be shown to support the phonemic status of the consonants described.

2.1.5.1 Voiceless obstruents

Voiceless obstruents can appear initially, medially, and in final position of the morpheme or the syllable. All voiceless obstruents are phonetically unreleased in coda position at the end of a morpheme. When in nasal contexts, these obstruents do not undergo nasalization.

A. /p/

The voiceless bilabial stop in morpheme-initial position is illustrated below, and its phonetic realization is [p]:

11) /p˘ã/ [p˘ã] ‘guamo fruit’

/~p˘ã˘ʔ/ [p˘ã˘ʔ] ‘potential mood’

/p˘ã/ [p˘ã] ‘revenge/ vengeance’

/p˘ã˘b/ [p˘ã˘b] ‘blow into the fire to make it burn’

/~p˘ã˘/ [p˘ã˘] ‘tail’

In morpheme-final position its phonetic realization is unreleased [p’]. Examples illustrating the occurrences of /p/ are found below:

12) /~ʧ˘ã˘p/ [ʧ˘ã˘p] ‘bewitch’

/ʧ˘ã˘p/ [ʧ˘ã˘p] ‘cross’

/ʔ˘ã˘ʔ/ [ʔ˘ã˘ʔ] ‘be sharp’

/~b˘ã˘p/ [b˘ã˘p] ‘preacher bird’ (bird sp)

The voiceless bilabial stop /p/ when occurring in morpheme-internal position is illustrated below and its phonetic realization is [p]:

13) /f˘˘p/ [f˘˘p] ‘be thin’

/~t˘˘p/ [t˘˘p] ‘to flail about on the ground’

/~ʔ˘˘p˘ã˘ʔ/ [ʔ˘˘p˘ã˘ʔ] ‘weaved basket to place manioc bread’

Minimal pairs illustrating the contrast of /p/ ≠ /b/ and /p/ ≠ /b’/ are illustrated below:
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14) /pâb/ [pâb̚] ‘cotton’ /bâb̚/ [bâb̚ ‘drink’
/pîʔ/ [pîʔ] ‘liana/piece of forest’ /bîʔ/ [bîʔ] ‘to hide’
/têp̚/ [têp̚] ‘be sharp’ /têb̚/ [têb̚] ‘to smell bad’
/pê/ [pê] ‘be last/follow/continue’ /=be/ [b̚e] ‘REC.PST’
/hâp̚/ [hâp̚] ‘young/new’ /bâb̚/ [bâb̚ ‘drink’

Minimal pairs showing the contrastive distribution of /p/ ≠ /w/ are in the examples below:

15) /pîʔ/ [pîʔ] ‘liana/piece of forest’ /wîʔ/ [wîʔ] ‘edible root’
/wâp̚/ [wâp̚] ‘to accompany someone’ /=wâw/ [wâw] ‘head’
/mêp̚/ [mêp̚] ‘blood’ /=bêw/ [mêw] ‘stream’

16) /p/ is also found in contrastive distribution with /f/:
/=pîh/ [pîh] ‘tail’ /=fîh/ [fîh] ‘to whistle’
/pâw]/ [pâw] ‘burning feeling (skin)’ /fâw/ [fâw] ‘be twisted’
/pêw]/ [pêw] ‘to pound/hammer’ /=fêw̃/ [fêw̃] ‘fall.sideways (INAN)’

B. /t/ 
The voiceless dental-alveolar stop /t/ can occur in morpheme-initial position as the examples in (17), morpheme-final position (18) and morpheme internal position (19).

In morpheme-final position its phonetic realization is unreleased [t̚]. Examples illustrating contrastive distributions of /t/ ≠ /d/, /t/ ≠ /d̚/, /t/ ≠ /j̚/, /t/ ≠ /ʧ̚/, and /t/ ≠ /l/ are given in (20)-(23) below.

17) Voiceless dental-alveolar /t/ [t] in morpheme-initial position:
/tîb/ [tîb̚] ‘seed’
/tîj/ [tîj] ‘to be good’
/tëw/ [têw̚] ‘to work’

18) Voiceless dental-alveolar /t/ [t̚] in morpheme-final position:
/=wît]/ [wît̚] ‘defecate’
/hît/ [hît̚] ‘grate’

19) Voiceless dental-alveolar /t/ in morpheme internal position:
/=hât̚]/ [hât̚] ‘before’
/tît̚]/ [tît̚] ‘metal plate/bowl’

20) /t/ = /d/:
/tâj̚/ [tâj̚] ‘to pierce’ /dâk̚/ [dâk̚] ‘write/draw’
/=wit]/ [wit̚] ‘name’ /wid/ [wid̚] ‘stomach’
The figures below show two spectrograms illustrating the contrast between glottalized voiced dental-alveolar /dɁ/, and the voiceless dental-alveolar /t/ in morpheme-final position [t̚]. Both these phonemes /dɁ/ and /t/ are perceptually very similar; the spectrums, however, show a difference on the voicing portion of both sounds. Compare both sounds in the spectrums below.

Figure 2.1: /ʧɨ̀dɁ/ [ʧɨ̀dɁ] ‘aunt’ Spectrum of glottalized voiced dental-alveolar /dɁ/
In Figure 2.1 above, the glottalized voiced dental-alveolar stop /dɁ/ clearly contrasts with the voiceless dental-alveolar stop /t/ in Figure 2.2. In Figure 2.1 the glottalized voiced stop shows pulses of voicing during its pronunciation whereas in Figure 2.2 the voiceless dental-alveolar stop does not. These contrasts are highlighted in a circle surrounding the area where the contrast occurs.

C. /k/

The voiceless velar stop /k/ occurs in morpheme-initial and medial position as [k]. In morpheme-final position its phonetic realization is unreleased [k̚]. The examples below illustrate the contrastive distributions of /k/ ≠ /ʔ/, /k/ ≠ /g/, /k/ ≠ /ɡ̚/.

24) /k/ Morpheme-initial:
/kēb/ [kēb̚] ‘agouti’
/kīt/ [kīt̚] ‘log/cylindrical shape’
/kīj̚/ [kīj̚] ‘bullet ant’

25) /k/ Morpheme-medial position:
/bākəʔ/ [bākəʔ] ‘body’
/kākə/ [kākə] ‘frog’

26) /k/ Morpheme-final position:
/dāk/ [dāk̚] ‘write’
/tjūk/ [tjūk] ‘wash’
27) /k/ = /ʔ/
   /~ʧûk/ [ʧûk̚] ‘chew’
   /~hûk/ [hûk̚] ‘to get wet’
   /kèb/ [kèb̚] ‘lapa’
   /ʔèb/ [ʔèb̚] ‘to smell bad’

28) /k/ = /g/
   /~kàk/ [kàk̚] ‘person’
   /jûk/ [ʤûk̚] ‘hair/feather’
   /jûg/ [ʤûg̚] ‘(for a part of the tree) to fall off the tree’

29) /k/ = /g/!
   /jûk/ [ʤûk̚] ‘hair/feather’
   /jûg/ [ʤûg̚] ‘poke a hole with a stick causing for the things inside come out’

D. /ʔ/  
The glottal stop /ʔ/ can occur in morpheme-initial, medial and final position. Vowel-initial morphemes are restricted to suffixes (see Section §2.2 on syllable, morpheme and word structure). The glottal stop in Kakua is a segment on its own, but glottalization is also a secondary feature associated with glottalized consonants (b’, d’, g’, j’, w’ see §2.1.5-§2.1.6 below). Examples are presented below to show its contrastive distribution and to support its identity as a phonemic segment.

30) /ʔ/ in word initial position. Note /ʔ/ ≠ /k/ (see also example 26 above).
   /~ʔà/ = [ʔà] ‘3SG.M’
   /ʔàp/ [ʔàp̚] ‘father’
   /~ʔèd/ [ʔèd̚] ‘see’
   /ʔì/ [ʔì̥] ‘hole’

31) /ʔ/ in word final position. Note /ʔ/ ≠ /k/.
   /~bàʔ/ [màʔ] ‘water/hammock’
   /kùʔ/ [kùʔ] ‘heal/give medication’
   /daʔ/ ['daʔ] ‘CL:round’
   /bìʔ/ ['bìʔ] ‘other’

32) /ʔ/ ≠ /t/
   /~jûʔ/ [ɲûʔ] ‘swamp’
   /jûʔ/ [ɲû̥] ‘to bring’
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33) /ʔ/ in word medial position

\[ /wîʔ-kan/ \quad [wîʔkan] \sim [wîʔkan] \quad \text{‘not be/not exist-NEG’} \]

\[ /dêʔe/ \quad [dêʔe]\sim[dêe] \quad \text{‘who’} \]

The following figure illustrates the glottal stop [ʔ] occurring in medial position.

The occurrence of the glottal stop in word-medial position causes laryngealization on the surrounding vowels. Most of the time, the glottal stop in medial position is not fully realized in the surface form, and the vowels are left with traces of laryngealization (creaky voice). This laryngealization primarily affects the vowel following the glottal stop.

Figure 2.3 below illustrates a case where the glottal stop is not fully realized and a trace of laryngealization can be seen affecting the vowel immediately following the underlying place of the glottal stop. This is seen in the figure in the distances on the pulses where the glottal stop is affecting the vowel.

Figure 2.3. Medial glottal stop realized as laryngealization on the vowel (/dêʔe/ [ndêʔe]\sim[ndêe] ‘who’)

A glottal stop in morpheme-final position can also often affect the vowel preceding it, giving a laryngeal quality to the vowel (creaky voice). This is shown in Figure 2.4 where the vowel in the root /~baʔ/ (highlighted in the first circle) surfaces with laryngealization [ma] and the glottal segment is not fully realized.
2.1.5.2 Voiced obstruents

Voiced obstruents in Kakua in oral contexts have pre-nasalized allophones in morpheme-initial position, and post-nasalized allophones in morpheme-final position. In nasalized contexts (nasal morphemes) the voiced obstruents are realized as their nasal allophones.

Kakua’s voiced obstruents undergo pre- and post-nasalization subject to their position in the morpheme.

Obstruents in Kakua are not contrastive on the basis of orality or nasality; rather, they are contrastive on the basis of voicing: voiced stops as opposed to voiceless stops. Also, glottalization contrast between glottalized voiced stops, versus plain voiced stops.

Pre- and post-nasalization represent a salient phonetic property to differentiate voiced stops from voiceless stops. In particular, post-nasalization of voiced stops in morpheme-final position is distinctively audible.

This section illustrates the realization of voiced obstruents and their allophonic variations in oral or nasal contexts.
A. /b/

In morpheme-initial position the voiced bilabial stop /b/ has a pre-nasalized realization [ⁿb], and post-nasalized realization when morpheme-finally [bⁿ]. Word-medially /b/ is commonly realized as [b]. Nasal morphemes are assumed as being underlyingly (lexically) nasal, in these contexts /ⁿb/ is always fully realized as its nasal counterpart allophone [m].

Table 2.6 summarizes the allophones of /b/ in nasal /ⁿb/ and oral /b/ contexts:

<table>
<thead>
<tr>
<th>/b/</th>
<th>morpheme-initial</th>
<th>morpheme-medial</th>
<th>morpheme-final</th>
</tr>
</thead>
<tbody>
<tr>
<td>oral context</td>
<td>[ⁿb]</td>
<td>[b]</td>
<td>[bⁿ]</td>
</tr>
<tr>
<td>nasal context</td>
<td>[m]</td>
<td>[m]</td>
<td>[m]</td>
</tr>
</tbody>
</table>

34) /b/ [mb] in morpheme-initial position:

/ᵇāb'/ [ⁿⁿbⁿ³'] ‘drink’
/ᵇig/ [ⁿⁿⁿ³ⁿ³'] ‘fall’
/ᵇālaʔ/ [ⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿⁿ’n

The following figure illustrates the prenasalization of the voiced bilabial obstruent in initial position. The pre-nasalization portion is circled in the figure. The release of the obstruent is seen as a burst that immediately follow the prenasalization portion.
Figure 2.5 Pre-nasalization of voiced bilabial obstruent

(‘bâlaʔ/ [mbâlaʔ]~[mbâɾàʔ] ‘squirrel’)

Morpheme-finally the bilabial voiced stop /b/ is post-nasalized [bm̩]:

35) /hîb/ [hîb̩] ‘value/price/vengeance’ /ʔàb/ [ʔàb̩] ‘go up’
    /làb/ [làb̩] ‘stream’ /bàb/ [bàb̩] ‘be ripe’

Figure 2.6 below illustrates pre- and post-nasalization in the phonetic realization of the Kakua word /bàb/ ["bàb̩] ‘be ripe’. The nasalization is seen in low sections at the bottom of the energy spectrum, two strong dark lines preceding and following the vowel.

The nasalization portion of post-nasalized obstruents is considerably more salient and audible than in pre-nasalized obstruents. The post-nasalization of voiced obstruents in general is obligatory in final position since the nasal component of the post-nasalized allophone, sets the phonetic contrast between plain voiced stops and glottalized voiced stops.
In cases in which a vowel-initial suffix is added to the final voiced stop, the post-nasalization becomes optional and may even be left out in speech. Imperative mood, for example, is formed by adding a vowel to the root of the verb, thus, when forming the imperative of /ʔǎb/ ['ʔǎb] ‘to go up’, the vowel of the root is reduplicated and the imperative form is /ʔǎb-á/ ‘go.up-IMP’. In cases like this, speakers may or may not post-nasalize the morpheme-final consonant of the root and the phonetic realization of this form may be [ʔabá] or [ʔabá]. More discussion on the phonotactics of consonants is given at the end of this in section.

In morpheme-internal position, /b/ is realized as [b]:

36) /webit/ [webit] ‘child’
   /kibiʔ/ [kibiʔ] ‘be cold’ (caused by an external factor)

In nasal morphemes /b/ is fully realized as its nasal allophone [m]:

37) ~/bì/ [mì] ‘wild pig’       ~/bì/ [ʔìm] ‘anteater’
   ~/bajá/ [máná] ‘iguana’     ~/ʔíb/ [ʔìm] ‘lake’
   ~/bubu/ [mùmù] ‘mushroom’   ~/bèbè/ [mèmè] ‘to tremble’

Note that additionally the vowel indicating the imperative mood also gets nasalized as follows: [ʔabá]. This apparently happens also in Yuhup (Nadahup, see Botma 2005), also spoken in the Vaupés area, but not in Yuhup’s sister language Hup, where [mbmb] occurs in such contexts (see Epps 2008).
Contrasts of /b/ ≠ /p/, /b/ ≠ /b/, /b/ ≠ /f/, and /b/ ≠ /w/ are shown below:

38) /b/ ≠ /p/
   /bʔ/ ["bʔ"] ‘to hide something’
   ~bʔ/ [mঞ] ‘snake’
   /ʔɛb/ [ʔɛ:b] ‘to smell bad’
   /pʔ/ [pʔ] ‘liana’
   ~pʔ/ [pঞ] ‘to wait’

39) /b/ ≠ /ʔb/,
   /ʔib/ [ʔʔb] ‘bring/take to’
   /~fান/ [fান] ‘hormiga arriera’

40) /b/ ≠ /g/
   /hিb/ [hি:b] ‘value/price/vengeance’
   /hিখ/ [hিখ] ‘hang a hammock’

41) /b/ ≠ /d/
   /bংaʔ/ [nংaʔ] ‘to grow/be ripe’
   /~bং/ [mং] ‘3SG.F’ (proclitic)
   /ʔং/ [ʔং] ‘to sink’
   ~dং/ [nংdং] ‘be lost/dissapear’
   /fান/ [fান] ‘older sister’

42) /b/ ≠ /f/
   /bংʔ/ [nংʔ] ‘to grow/be ripe’
   /~bং/ [mং] ‘3SG.F’ (proclitic)
   /fংʔ/ [fংʔ] ‘be jealous’
   ~fং/ [fংfং] ‘1PL.’

43) /b/ ≠ /w/
   /ʔib/ [ʔʔb] ‘bring/take to’
   /~bংʔ/ [nংʔ] ‘2SG’
   /bংʔ/ [nংʔ] ‘squirrel’
   /wংʔ/ [wংʔ] ‘be swollen/bloated’

44) /d/ = /t/ (see also examples in (20) above)
   /dাছ/ [dাছ] ‘to break’
   /wিদ/ [wিদ] ‘stomach’
   /wিত/ [wিত] ‘= REP.EVID’
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45) /d/ ≠ /d/:

/ˈwɪd/ [ˈwɪd] ‘mix’  
/ˈj不惜/ [ˈj不惜] ‘woman’

In morpheme-medial position, /d/ is typically pronounced as a flap [ɾ] while its pronunciation as [d] occurs often in careful speech:

46) Morpheme-medially /d/:

/ˈdSecurity(token)ɪd/ [ˈdSecurity(token)ɪd] ‘butterfly’

/ˈhireɪ/ [ˈhireɪ] ‘circle/surround’

/ˈbiɪɾɪ/ [ˈbiɪɾɪ] ‘be big’

Across morpheme boundaries, the phonetic realization of /d/ is [d]:

‘the skinny one’

48) /ˈwa=ɪdɪʔ/ [ˈwã=ɪdɪʔ]
1SG = relative = OBJ
‘to my relative’

Figure 2.7 below illustrates /d/ in morpheme-medial position being realized as flap [ɾ]:

Figure 2.7 Morpheme-medial /d/: [ɾ]: (/ˈdedɪʔ/ [ˈdɪɾɪ] ‘what’)
In nasal morphemes, /d/ is realized as its nasal allophone [n]:

49) /d/ : [n]

/ ~dèb/ [nèm] ‘be closed’
/ ~pìdàʔ/ [pìnàʔ] ‘POT’
/ ~fìd/ [fìn] ‘yesterday’

Also /d/ is contrastive with the palatal plain voiced glide /j/ (pronounced [dʒ] in morpheme-initial position), and also with the glottalized palatal /jʔ/ in final position and with the affricate /ʧ/ in initial position:

50) /d/ = /j/

/dì/ ["dì:] ‘crawl’
/dēj/ ["dēj] ‘descend’
/jàd/ ["ʤàd"] ‘woman’
/wàd/ [wàd" ] ‘go in’

/jì/ ["dʒì:] ‘grease’
/jēj/ ["dʒēj"] ‘poison’
/jâj/ ["ʤâj"] ‘to ease pain’
/wâj/ [wâj] ‘pull’

51) /d/ = /ʧ/

/dì/ ["dì:] ‘sugar cane’
/jìd/ ["ʧìd"] ‘to sit’

/jì/ ["ʧì:] ‘fall dropping’
/jìʔ/ ["ʧìʔ"] ‘manioc bread’

Table 2.7 below summarizes the allophonic variation of /d/ in nasal /~d/ and oral /d/ contexts.

<table>
<thead>
<tr>
<th>/d/</th>
<th>morpheme-initial</th>
<th>morpheme-medial</th>
<th>morpheme-final</th>
</tr>
</thead>
<tbody>
<tr>
<td>oral context</td>
<td>[&quot;d]</td>
<td>[r] ~ [d] in careful speech</td>
<td>[d&quot;]</td>
</tr>
<tr>
<td>nasal context</td>
<td>[n]</td>
<td>[n]</td>
<td>[n]</td>
</tr>
</tbody>
</table>

Figure 2.8 below illustrates pre- and post-nasalization of /d/. The spectrogram shows a strong nasalization portion preceding the voiced alveolar-stop and following the morpheme-final voiced stop.
Figure 2.8 Pre- and post-nasalization Kakua word /ded/ ["ded"] ‘how’

C. /g/

Kakua’s velar voiced stop has a restricted distribution and cannot occur morpheme-initially.

In morpheme-medial position velar voiced stop is realized as [g] and in morpheme-final position its realization is [g\̃]. Note that /g/ ≠ /d/, /g/ ≠ /g\̃/, /g/ ≠ /ʔ/, and /g/ ≠ /k/.

52) /ʔɨ̂g/ [ʔɨ̂g] ‘beetle (sp. long mandibles)’ /ʔid/ [ʔid] ‘younger brother’
   /jɪg/ [‘dɪg\̃’] ‘part of the tree that falls off’ /jɪg\̃/ [‘dɪg?] ‘to comb’
   /jɪʔ/ [‘dɪʔ] ‘FRUST’
   /bɪg/ [‘bɪg\̃’] ‘fall’
   /bɪk/ [‘bɪk\̃’] ‘reed used for baskets’

Morpheme-internally, the voiced velar /g/ is realized as [g]:

53) /bɛgɛp/ [‘bɛgɛp\̃’] ‘basket for storing manioc powder’
   /hâgap/ [hâgâp\̃] ‘spider’

In lexically nasal morphemes /g/ is fully realized as its nasal allophone [n]:

54) /–diɡ/ [nɪn] ‘to vomit’
   /–jâɡaʔ/ [nânjâʔ] ‘plant sp. use to control diarrhea’
Table 2.8 below summarizes the allophonic variation of /g/ in nasal and oral contexts.

<table>
<thead>
<tr>
<th>/g/</th>
<th>morpheme-initial</th>
<th>morpheme-medial</th>
<th>morpheme-final</th>
</tr>
</thead>
<tbody>
<tr>
<td>oral context</td>
<td>no morpheme-initial</td>
<td>[g]</td>
<td>[gʷ]</td>
</tr>
<tr>
<td>nasal context</td>
<td>no morpheme-initial</td>
<td>[ŋ]</td>
<td>[ŋ]</td>
</tr>
</tbody>
</table>

Figure 2.9 below illustrates the post-nasalization realization of morpheme-final voiced velar obstruent /g/:

Figure 2.9 Post-nasalized /g/ in morpheme-final position (/hīg/ [hīgʷ] ‘hang hammocks’)
2.1.5.3 Fricatives

Kakua has a set of two fricatives, both of them voiceless: the labio-dental voiceless fricative /f/, and glottal voiceless fricative /h/. It is intriguing that the labio-dental voiceless fricative /f/ is not found as part of the phonological inventory in Nɨkak, Kakua’s language sister. It is also not found in the neighboring East Tukanoan languages; see Barnes (1999 and Chacon 2009, 2014).

In nasal environments, both of these voiceless fricatives (/f/ and /h/) are nasalized.

A. /f/

Kakua’s voiceless labio-dental fricative /f/ is restricted to morpheme-initial position. I have found speaker variation in the realization of this fricative. The variation in the pronunciation of this consonant is related to the clan affiliation of the speaker (which historically was probably associated with geographic location). The phonetic realization of this phoneme varies between \[f\] ~ \[\phi\] ~ \[f\]. There is no environment conditioning these realizations, but rather, clan affiliation of the speaker determines the phonetic realization of this sound.

The majority of the speakers with whom I did audio recordings pronounced this fricative as \[f\] and for this reason I have deliberately chosen to represent this form /f/ as the underlying form (and in the phonetic transcriptions I am only showing one of the variations of realization of /f/).

55) Note the contrastive distribution of /f/ ≠ /w/

| /fɪb/    | [fɪb] | ‘to smoke’ |
| ~ /fɪb/ | [fi̞m] | ‘be hard/rigid/solid’ |
| /fɪb/    | [fɪb̪] | ‘again/return’ |
| /fɪw̥/    | [fɪw̥] | ‘be inclined’ |
| ~ /fɪʔi/ | [fiʔi] | ‘TEL.PROG’ |
| ~ /w̥ʔi/  | [w̥ʔi] | ‘(big) basket’ |

56) /f/ ≠ /p/

| ~ /fɪʔh/ | [fɪʔh] | ‘fish sp. (tucunaré)’ |
| /fɪʔh/    | [fɪʔh̪] | ‘repeat/do again’ |
| ~ /fɪʔh/  | [fɪʔh̪̬̬] | ‘to whistle’ |
| /p̥h/    | [p̥h] | ‘guamo fruit’ |
| /p̥h/    | [p̥h̪] | ‘boil’ |
| /p̥h/    | [p̥h̪̬̬] | ‘tail’ |

/f/ is also contrastive with /h/, see examples in (60) below.

In a phonological comparison between Kakua (Wacará variety) and Spanish, La Rotta (1977) claims that Kakua does not have a /f/ sound, and therefore Kakua speakers speaking Spanish assimilated /f/ with /p/ and /h/. She gives the following examples:

9 Epps & Bolaños submitted identify /w/ as a reflex in Nɨkak and reconstruct /f/ for Proto Kakua-Nukakan.
However, this phonetic assimilation of Spanish /f/ into Kakua /p/ or /h/ is not consistent through La Rotta’s paper. Later in the paper she gives examples in which the Spanish fricative sound /f/ is apparently also pronounced as [f] in Kakua:

My data show a pattern different from La Rotta’s, as shown in (55) and (56) above. It is possible that Kakua has developed the /f/ phoneme since La Rotta’s analysis and the origin of the /f/ sound in Kakua may correspond to a, e.g. by splitting either /p/, /h/ or /w/ into /f/ and its original source sound. In any case, synchronically, /f/ is indeed a phoneme in contrastive distribution with other sounds in Kakua. In any case, in the current situation of Kakua, as evident in the data I gathered, Spanish loans into Kakua involving the sound [f] are always retain [f] and to not replace it with [p] or [h]. /f/ is likely to have developed from /w/, first through devoicing of /w/ and later establishing a contrastive distribution. Epps & Bolaños (submitted) tentatively reconstruct /f/ for the proto Kakua-Nukakan forms where /f/ and /w/ have been encountered for Kakua and Nîkak respectively, since a robust correspondence was already found for /w-w/ in the two languages. According to the data at hand, I agree with this reconstruction and propose that, in the mean time and until we are able to propose a full reconstruction of the proto Kakua-Nukakan phonology, /f/ should be considered a phoneme in Kakua and, although its distribution is restricted to morpheme-initial position, a scenario were this phoneme is not so new in Kakua is not that unlikely.

B. /h/

Kakua’s voiceless glottal fricative /h/ occurs in morpheme-initial, morpheme-medial, and morpheme-final positions. It is contrastive notably with glottal stop /ʔ/ and with the voiceless fricative /f/.

When the morpheme is lexically nasal, the voiceless glottal fricative also has a nasal realization.

<table>
<thead>
<tr>
<th>Spanish</th>
<th>Kakua</th>
<th>English gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>fruta</td>
<td>[furuta]</td>
<td>‘fruit’</td>
</tr>
<tr>
<td>fresa</td>
<td>[feresa]</td>
<td>‘strawberry’</td>
</tr>
<tr>
<td>/hǐ/IGH</td>
<td>[hǐ:h]</td>
<td>‘to fly’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spanish</th>
<th>Kakua</th>
<th>English gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>foto</td>
<td>[hoto]</td>
<td>‘photo’</td>
</tr>
<tr>
<td>foca</td>
<td>[poka]</td>
<td>‘seal’</td>
</tr>
</tbody>
</table>

57) La Rotta (1977:13)

58) La Rotta (1977:18)
2.1.5.4 Glides

Kakua has two glides, /w/ and /j/. When in nasal contexts, these glides undergo nasalization. Also note their glottalized counterparts; see below.

### A. /w/

The labio-velar glide /w/ occurs in morpheme-initial, morpheme-medial, and morpheme-final.

62) /wâw/ [wâw] ‘head’
   /ʧîw/ [ʧîw] ‘carrizo flute/bone flute’
   /wiwâ/ [wiwâ] ‘wasp’
   /pawâʔ/ [pawâʔ] ‘catfish’
   /wawâ/ [wawâ] ‘CL:brushy’

In nasal morphemes, Kakua’s bilabial glide also undergoes nasalization:

63) /~ʔîw/ [ʔîw̃] ‘sleep’
   /~wâj/ [wâj] ‘be weak’

The examples below illustrate the contrast between /w/ and /p/ /b/, and /w/ (see also (55) above for contrasts between /f/ and /w/).

64) /w/ = /p/, /w/ = /b/
   /~wîh/ [wîh] ‘to smell rotten’
   /~pîh/ [pîh] ‘tail’
   /ʔèw/ [ʔèw] ‘to sing/to dance’
   /ʔèp/ [ʔèp̃] ‘be sharp’
   /ʔèb̃/ [ʔèb̃] ‘to smell bad’

/âd/ [âd̃] ‘go or be inside/enter’ /b̃d̃/ [”b̃d̃"] ‘to dig’
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65) /w/ ≠ /w'/

/hiːw/ [hiː] ‘jaguar’ /hiːw'/ [hiːʔ] ‘guide rituals’
/piːw/ [piː] ‘have a mass in the mouth’ /piːw'/ [piːʔ] ‘to spill’
/-pɔw/ [pɔw] ‘breadfruit tree seed’ /-pɔw'/ [pɔwʔ] ‘have a burning feeling on the skin’

/-ʔiːw/ [ʔiː] ‘to sleep’ /-ʔiːw'/ [ʔiːʔ] ‘to hide in between’

B. /j/

Kakua’s palatal glide /j/ occurs in morpheme-initial, morpheme-medial, and morpheme-final position.

In oral contexts /j/ is pronounced [*dʒ] in morpheme-initial position, and [dʒ] in morpheme-medial position. As discussed at the end of this section, I consider /j/ not [*dʒ] as the underlying phoneme because it is more elegant to propose that there is a series of glottalized and plain glides, /w/, /w’, and /j/, /j’, as this makes the set of glides more balanced. Additionally, an allophony of this kind is also found in other languages of the region, such as Hup (Epps 2008) and Tariana (Aikhenvald 2003:30). More discussion regarding the underlying representation of /j/ vs /j’/ is given at the end of this section.

In nasal contexts /j/ is found morpheme-initially and medially as its nasal allophone [ɲ]. In morpheme-final position its realization is [j]. Across morphemes its realization is [j] if followed by a voiceless consonant and is [dʒ] in oral contexts and [ɲ] in nasal contexts.

The palatal glide contrasts with the affricate /ʧ/ in initial position, and with its glottalized counterpart /jʔ/ in final position:

66) /j/ = /ʧ/ /j/ = /jʔ/

/ʃiːw/ [ʃiː] ‘sun’ /ʧiːw/ [ʧiː] ‘to tie’
/ʃiː/ [ʃiː] ‘grease/fat’ /ʧiː/ [ʧiː] ‘to drip/leak’
/ʃiːʔ/ [ʃiːʔ] ‘swim’ /ʧiːʔ/ [ʧiːʔ] ‘long thin leaves’
/ʃiːj/ [ʃiːj] ‘to poison’ /ʧiːj/ [ʧiːj] ‘to look up’
/-ʃiːj/ [ɲiːj] ‘to spread’ /-ʃiːjʔ/ [ɲiːʔ] ‘spoilt/badly knitted’

/baːj/ [baːj] ‘small’
/-beːja/ [maːpə] ‘iguana’
/-ʃiːw/ [ʃiːw] ‘net’
/-ʃiːj= /= [ɲi] ‘2PL =’

Table 2.9 below summarizes the allophonic variations of /j/.
A Grammar of Kakua

Table 2.9 Allophonic variations of /j/

<table>
<thead>
<tr>
<th>/j/</th>
<th>morpheme-initial</th>
<th>morpheme-medial</th>
<th>morpheme-final</th>
</tr>
</thead>
<tbody>
<tr>
<td>oral context</td>
<td>[ŋʤ]</td>
<td>[j]</td>
<td>[j] and [ʤ] across morphemes</td>
</tr>
<tr>
<td>nasal context</td>
<td>[ɲ]</td>
<td>[ɲ]</td>
<td>[j] and [ɲ] across morphemes</td>
</tr>
</tbody>
</table>

2.1.5.5 Lateral

Kakua has one lateral consonant occurring only morpheme-initially and morpheme-internally positions in both nasal and oral contexts. When in intervocalic position, it occurs in free variation with the flap [ɾ].

It is important to note that the set of words containing a morpheme-initial lateral in the corpus is limited. In spite of the reduced number of examples available, /l/ contrasts with /d/ and /t/ as shown in the minimal -or near minimal pairs- contrasting /l/ ≠ /d/ and /l/ ≠ /t/ shown in examples (67) below.

Both /l/ and /d/ have an intervocalic flap allophone in oral contexts where the contrast of /l/ and /d/ is neutralized.

67) Note /l/ ≠ /d/, and /l/ ≠ /t/

<table>
<thead>
<tr>
<th>/l/</th>
<th>/d/</th>
</tr>
</thead>
<tbody>
<tr>
<td>/läh/</td>
<td>/däh/</td>
</tr>
<tr>
<td>/láb/</td>
<td>/dáb/</td>
</tr>
<tr>
<td>/lã/</td>
<td>/dã/</td>
</tr>
<tr>
<td>/lãʔ/</td>
<td>/dãʔ/</td>
</tr>
<tr>
<td>/pílãʔ/</td>
<td>/pílãʔ/</td>
</tr>
<tr>
<td>/báãʔ/</td>
<td>/dáãʔ/</td>
</tr>
<tr>
<td>/báʔ/</td>
<td>/dáʔ/</td>
</tr>
<tr>
<td>/búʔ/</td>
<td>/dúʔ/</td>
</tr>
</tbody>
</table>

The lateral phoneme /l/ never occurs in morpheme-final position, whether in native lexical words or in loan words.

68) Spanish Kakua

/papel/ /papelaʔ/ ‘paper’

In the example above, a vowel and a glottal stop are added probably in order to avoid /l/ in final position. Nonetheless, I do not have evidence to claim that this has indeed been the process in Kakua since there are also examples of borrowings from Cubeo that already have the epenthesized form, suggesting that it was already a Cubeo process when it came into Kakua (see more description in Section §2.3):
Kakua’s lateral consonant is intriguing for two reasons: On the one hand, it is interesting to note that it has been reported that Nikak, Kakua’s sister language, has a flap [ɾ] consonant in its phonemic inventory (see Cabrera et al. 1999:369). On the other hand, /l/ is not found as a phoneme in any other of the Vaupés languages (see Barnes 1999 and Chacon 2009 for Eastern Tukanoan; Epps 2005 for Hup; Ospina 2002 for Yuhup). To my knowledge, lateral phonemes in languages spoken in the Vaupés area have been documented for Tariana only, and even there it also seems to be a restricted phoneme with limited occurrences (Aikhenvald 2003:29-30).

2.1.5.6 Glottalized consonants

Kakua shows a series of glottalized consonants, consisting of the glottalized stops /bɁ/, /dɁ/, /gɁ/, and glottalized glides /jɁ/, and /wɁ/. This series of glottalized consonants shows a wide range of allophonic variations depending on their position in the morpheme.

In final position the glottalized consonants are unreleased:

Example 70) above shows a contrastive minimal pair of glottalized and plain voiced bilabial stops, /bɁ/ ≠ /b/.

Note that the glottalized consonant does not contrast in voicing (they are both voiced) with its non-glottalized counterpart (where the glottalized /bɁ/ is unreleased while the plain /b/ is released and undergo post-nasalization in word final position). The example illustrates the distinctive phonetic realization of glottalized consonants (CɁ), and plain consonants (C), in word-final position, where the glottalized voiced stops do not undergo post-nasalization while the plain consonant invariably do surface as post-nasalized.

2.1.5.7 Glottalized voiced obstruents

Glottalized stops are restricted to voiced stops. Voiceless stops don’t have voiceless glottalized counterparts. These glottalized voiced stops have a wide range of allophonic variation depending on their position in the morpheme.

The distribution of these glottalized voiced obstruent phonemes is very restricted. They only occur in morpheme-final position. These phonemes are phonetically realized as unreleased voiced stops, or as a sequence of [CɁ?]. These

---

10 A previous stage of the phonological analysis of Kakua (2010), presented the possibility of glottalized voiced obstruents in morpheme-initial position. This analysis was discarded in the light of more data and reassessments gathered in the subsequent years. Morpheme-initial glottalized obstruents were not found. An interesting study to undertake would be to search for possible ‘hidden’ morpheme-initial glottals that may leave a laryngealization effect onto the following vowel.
glottalized obstruents do not undergo post-nasalization as opposed to their non-
glottalized counterparts.

The glottalized voiced stops also have nasal allophones, are nasalized in nasal
contexts [Nʔ] ~ [NC~hormogenic]. The distribution of the nasal allophones of glottalized
voiced stops reflect their distribution in oral contexts.

Perceptually, is very difficult to perceive the voicing of morpheme-final
(glottalized) stops; however, when a vowel-initial suffix is added to glottalized stops
in final position, the contrast with voiceless stops becomes more salient, revealing
the underlying difference between final voiceless stops and final glottalized stops.
When a vowel initial suffix is added to a morpheme with a glottalized consonant
final root a laryngealization of the vowel in the suffix is always audible.

At this point of my research I have not encountered these voiced glottalized
obstruents in either morpheme-initial or morpheme-medial positions. Therefore, I
will illustrate the occurrence of these consonants based on the available data.

An alternative analysis to the series of glottalized consonants is considered at
the end of this section.

A. /bɁ/

The glottalized bilabial voiced obstruent occurs only in final position.
Examples and phonetic realizations of this phoneme are shown in (71) below:

71) /bɁ/ [bʔ] ~ [b]. Note /bɁ/ ≠ /b/, and /bɁ/ ≠ /p/.

/b/  /p/  [piʔ] ~ [piʔ] ‘edible seed sp’  /d/  /t/  ‘ant’ sp.

/p/  [pɪbɁ] ~ [pɪb] ‘drink’  /p/  [pɪb]  ‘cotton’

/h/  /h/  [hɁp] ~ [hɁp] ‘new/young’

The three figures below illustrate the contrast between /bɁ/ /b/, and /p/ in
morpheme-final position. Note the trace of voicing pulses in Figure 2.11 (morpheme-
final /bɁ/) and compare with Figure 2.10 (morpheme-final /p/).

Figures 2.11 and 2.12 illustrate minimal pairs of glottalized bilabial /bɁ/ (/pɪbɁ/
[“pɪbɁ”] ‘drink’; Fig. 2.11) and plain voiced bilabial /b/ (/pɪb/ [“pɪb”] ‘be white/ripe’;
Fig. 2.12).
Figure 2.10 Morpheme-final voiceless bilabial stop
(/hâp/ [hâp̚] ‘young’)

Figure 2.11. Morpheme-final glottalized bilabial stop
(/bâb̚/ [‘bāb̚] ‘drink’)

Figure 2.12. Contrast /b/ ≠ /bɁ/ in final position

(/bəbɁ/ ["bəb"] ‘be ripe’)

Table 2.10 below summarizes the allophonic variation of /bɁ/ in nasal and oral contexts.

<table>
<thead>
<tr>
<th>/bɁ/</th>
<th>morpheme-initial</th>
<th>morpheme-medial</th>
<th>morpheme-final</th>
</tr>
</thead>
<tbody>
<tr>
<td>oral context</td>
<td>no morpheme-initial</td>
<td>no morpheme-medial</td>
<td>[bɁ]</td>
</tr>
<tr>
<td>nasal context</td>
<td>no morpheme-initial</td>
<td>no morpheme-medial</td>
<td>[mp]~[mɁ]</td>
</tr>
</tbody>
</table>

In nasal environments the allophone of the glottalized voiced stop in morpheme-final position is often realized as a cluster with a homorganic nasal stop as the unreleased portion of the glottalization [NC_homorganic] ~ [NɁ]:

    = /~hèp/ [hẽp] ‘to be jealous’

/~fàbɁ/ [fàmp']-[fàmp] ‘root for chicha’ = /~fàb/ [fàm] ‘cutting ant’

The homorganic voiceless consonant in the phonetic realization of this glottalized nasal is consistently lost across word boundaries, and the nasal allophone of the glottalized voiced obstruent is realized like the plain voiced stop in nasal
environments: e.g. /~hěb\̂/ [hěmp’] is phonetically realized as [hěm-] across word boundaries when a vowel-initial suffix is added to the root.

Only in careful speech is this difference emphasized, where the glottal portion following the voiced stop is audible:

[404x668]73) ~ʔa = ~hěb\̂-ep = be [ʔāhěmepbe]
3SG.MASC = eat-PST = REC.PST
‘He just ate’

The figures below show the contrast of the phonetic realization of the nasal allophone of the voiced bilabial glottalized stop /~b\̂/ across morpheme-boundaries:

Figure 2.13: Glottalized bilabial voiced stop /~b\̂/ in nasal context followed by C initial suffix /~bi = ~hěb\̂ = ~da = ka/ [mĩhěmpnãka]–[mĩhěmpnãka]
(3SG.FEM = eat = DECL = ASS) ‘She is eating’

Note that in the area highlighted, the glottalized stop in morpheme-final position shows a spacing on the pulsing of the frequency energy. This indicates the realization of the glottal portion of [mʔ]. Note also that in the spectrogram in the following figure, the recent past clitic =be ‘REC.PST’ is transcribed as =b’e to reflect the laryngealization of the vowel in the morpheme. This could be a long-distance effect of the glottal portion from the preceding morpheme to which =be ‘REC.PST’ is attached.
Figure 2.14: Phonetic realization of glottalized bilabial voiced stop //~bɁ/ (nasal context) in morpheme boundary: vowel-initial suffix attached /~/bi=-hebɁ-ep=be/ [mĩhɁemepbe] (3SG.F = eat-PST = REC.PST)
‘She (just) ate’

B. /dɁ/

The distribution of the glottalized alveo-dental voiced obstruent is also restricted –as is the case for glottalized bilabial voiced obstruent presented above in this section–. It only occurs in morpheme-final position.

Table 2.11 below summarizes the allophonic variation of /dɁ/ in nasal and oral contexts.

<table>
<thead>
<tr>
<th>/dɁ/</th>
<th>morpheme-initial</th>
<th>morpheme-medial</th>
<th>morpheme-final</th>
</tr>
</thead>
<tbody>
<tr>
<td>oral context</td>
<td>no morpheme-initial</td>
<td>no morpheme-medial</td>
<td>[dɁ]</td>
</tr>
<tr>
<td>nasal context</td>
<td>no morpheme-initial</td>
<td>no morpheme-medial</td>
<td>[nt]-[nɁ]-[ntɁ]</td>
</tr>
</tbody>
</table>

In oral contexts, /dɁ/ is realized as [dɁ]-[dɁ]. In nasal contexts it surfaces as either [nɁ] or as a cluster of consonants with a homorganic voiceless consonant [nt]-[ntɁ]-[nɁ].
74) Note that /d/ ≠ /d/, and /d/ ≠ /t/:

[~dûd] [nûnt] ‘barbasco (poison)’

[~dû] [nût] ‘ibapichuna’

tree sp.

[~jîd] [ţîn] ‘chase’

[~âd] [mâd] ‘be awake’

[~jîd] [ţîd] ‘smoke meat/fish’

[~âd] [mâd] ‘to dig’

[~âd] [mâd] ‘women’

[~kâd] [kân] ‘3SG.FEM’

[~kâd] [kân] ‘3SG.MSC’

[~kâd] [kân] ‘3SG.F’

[~did] [nin] ‘PROX.DEM.F’

[~did] [nin] ‘PROX.DEM’

Figures 2.15 and 2.16 below illustrate the contrast between nasal allophones /d/ and /d/. In figure 2.15, the highlighted area shows the voicing portion of the nasalized phoneme /d/ being abruptly interrupted by the glottal obstructuent portion of the nasalized phoneme:

Figure 2.15: Phonetic realization of nasal allophone of glottalized voiced alveolar stop /d/:

In figure 2.16, contrasting with 2.15 above, the highlighted area shows the uninterrupted realization of the nasalized phoneme /d/ [n]:

[~nînt] [nînt] ‘PROX.DEM.F’
Figure 2.16: Phonetic realization of nasal allophone of plain voiced alveolar stop:

(~/kǎːd/ [kǎːn] 3SG.M’)

C. /ɡɁ/

In morpheme-initial position glottalized voiced velar /ɡɁ/ cannot occur, following the restricted distribution pattern of its non-glottalized counterpart /ɡ/ and of the whole series of glottalized voiced obstruents. I also have not found evidence of this phoneme occurring in medial position.

Minimal pairs of /ɡɁ/ and /ɡ/ are shown in the examples below.

In oral contexts, /ɡɁ/ is realized as [ɡɁ]~[ɡ̚].

75) Note that /ɡɁ/ ≠ /ɡ/, /ɡɁ/ ≠ /k/, and /ɡɁ/ ≠ /ʔ/

/ɡ̚iɡ̚/ [pɪɡ̚'] ‘make noise clapping on water/drawn’

/ɡ̚iɡ̚/ [pɪɡ̚] ‘to make soft’

/~pʊʔ/ [pʊʔ] ‘sharp end’

/~bʊk/ [mʊk'] ‘men’s ceremonial chant’

/ɡ̚iɡ̚/ [’dʒɪɡ̚] ‘to comb’

/ɡ̚iɡ̚/ [’dʒɪɡ̚] ‘fall off a tree’

/ɡ̚iɡ̚/ [’dʒʊk’] ‘hair/feather’

/ɡ̚iɡ̚/ [’dʒɪʔ] ‘FRUST’

From my data I can only provide evidence of the behavior of /ɡɁ/ in oral contexts. I expect, however, that in nasal environments /ɡɁ/ also follows the same behavior of nasal contexts described for /bɁ/ and /dɁ/, where the nasal allophones for these phonemes consisted of a hormogonic unreleased nasal or a hormogonic nasal and a glottal stop: [N]~[NɁ]. Thus, I expect that in nasal contexts, the nasal allophone of /ɡɁ/ should be [ŋɁ]~[ŋ̚] and its distribution should also reflect the same
restrictions on the distribution of /g/ in oral environments. This hypothesis needs to be tested once more data becomes available.

When the glottalized voiced velar /g/ is followed by a vowel-initial suffix, in oral contexts, /g/ is neutralized with /g/.

76) /~ʔa = t-pig’-iP = wit = be/ [ʔāpig’ipwitbe]
3SG.M = EVID-make.noise.clapping.on.water = REP.EVID = REC.PST
‘he drowned (it is said)’

When followed by a consonant-initial morpheme, /g/ can be realized either as [gʔ]-[g’], or insert a vowel between the velar obstruent and the glottal portion of the glottalized phoneme. The inserted vowel copies the quality of the vowel in the root. For example, if /pig’/ ‘make noise clapping on water/drown’ is followed by the inferred evidential clitic =tagā, /pig’/ can be realized either as [pig’], or insert a vowel producing the following realization [pigʔ]. The realization where a vowel is inserted, occurs only in fast speech. When elicited, speakers produced the realization where no vowel was inserted.

Example in (77) below illustrates these two possible realizations:

77) /~hâh  ~ʔa = t-pig’ = tagā/ [hâh ṭāpig’tagā]–[hâh ṭāpigʔtagā]
listen! 3SG.M = EVID-drown = INF.EVID
‘Listen! (looks like) he is drowning’

Compare the behavior of /k/ in morpheme-final position followed by consonant- and vowel-initial suffixes. The contrast between /g/ and /k/ is maintained (unlike the contrast between /g/ and /g/ when a vowel-initial suffix follows):

78) a. /bāk/ [bāk’] ‘to exit’
/~wa = bāk = -da = ka/ [wā = bāknaka]
1SG = exit = DECL = ASS
‘I am getting out’

b. /~ba = bāk-á/ [mabāká]
2SG = get.out-IMP
‘Get out!’ (leave!)

11 Again, although I propose for this description that no glottalized voiced stop occurs in morpheme-initial position, I acknowledge that it might be the case that historically glottalized consonants occurred in onset position, but the contrast might have become neutralized with time. In any case, the full neutralization of glottalized consonants preceding a vowel (i.e., if no laryngealization actually occurs), then this would support the claim that the glottalized consonants only appear in coda position.
2.1.5.8 Glottalized glides

Glottalized glides in Kakua occur only in final positions. The series of glottalized glides are considered here as counterparts of the plain glides /j/ and /w/ (following the analysis for voiced stops presented in 2.1.2.3 and 2.1.5 above) with a restricted distribution. In morpheme-final position, the phonetic realization of these glottalized glides contains both glide and glottal stop components [Glide ʔ].

A. \(/j\)'

The glottalized palatal glide \(/j\) occurs only in morpheme-final position.

The phonetic realization of \(/j\) is [j ʔ] in oral contexts and [j̀̃ ʔ] in nasal contexts as summarized in the following table:

<table>
<thead>
<tr>
<th>oral context</th>
<th>morpheme-initial</th>
<th>morpheme-medial</th>
<th>morpheme-final</th>
</tr>
</thead>
<tbody>
<tr>
<td>no initial position</td>
<td>no medial position</td>
<td>[j ʔ]</td>
<td></td>
</tr>
<tr>
<td>nasal context</td>
<td>no initial position</td>
<td>no medial position</td>
<td>[j̀̃ ʔ]</td>
</tr>
</tbody>
</table>

The following examples illustrate \(/j\) in both oral and nasal contexts. Note that \(/j\) is different from \(/j\), as shown by minimal or near minimal pairs:

79) \(/j\)ěj\) [nʤějʔ] 'to poison'  \(/j\)ěj\) [ʧêj] 'to look up'
\(/~jâj\) [ɲ plaisj̀̃ʔ] 'spoilt/not well knitted'  \(/~jâj\) [ɲ plaisj̀̃] 'to spread'
\(/~ʧ āj\) [ʧǎ̀̃j̀̃ʔ] 'ripe avina fruit'  \(/~ʧ āj\) [ʧǎ̀̃j̀̃] 'to pile'

The following spectrogram shows a laryngealization effect of /j ʔ/ on the voicing portion of the glottalized glide. The laryngealization is shown by the spacing of the pulses highlighted in the circled area:

12 A previous version of this grammar recognized \(/j\) also in morpheme-initial position with a phonetic realization of [ʧ]. See 2.1.8 below for the description of /ʧ/ as a phoneme in its own right. The analysis of [ʧ] and [j] as allophones of /j/ was based on two considerations. On the one hand, both [ʧ] and [j] sounds were considered to be in complementary distribution, where [ʧ] only occurs in initial position, while [j] only occurs in final position. Additionally, /j/ was being analyzed as a glottalized counterpart of /j/ (as it is being analyzed in the current version). In parallel following the phonetic realization of /j/ in morpheme-initial position as [ʧ], /ʧ/ was considered as the voiceless counterpart of /ʧ/ in morpheme-initial position, resulting in [ʧ] and [ʧ] as contrastive (phonetic) counterparts of a /j/ and /j/ respectively.
Figure 2.17. Kakua glottalized glide /jʔ/ before consonant initial suffix. (/tějʔ-ja/ [tějʔ-dğa] ‘hand-?')

B. /wʔ/

The glottalized labio-velar glide /wʔ/ occurs only in morpheme-final position.

<table>
<thead>
<tr>
<th>/wʔ/</th>
<th>morpheme-initial</th>
<th>morpheme-medial</th>
<th>morpheme-final</th>
</tr>
</thead>
<tbody>
<tr>
<td>oral context</td>
<td>no initial position</td>
<td>no medial position</td>
<td>[wʔ]</td>
</tr>
<tr>
<td>nasal context</td>
<td>no initial position</td>
<td>no medial position</td>
<td>[wʔ]</td>
</tr>
</tbody>
</table>

The glottal portion of /wʔ/ has a laryngealization effect on the following vowel. This is seen on V-initial suffixes attaching to morphemes with a /wʔ/ in final position.

The following examples illustrate the contrast between /wʔ/ and /w/:

80) Note /wʔ/ ≠ /w/

| /fawʔ/ | [fáwʔ] ‘rat’ | /faw/ | [fáw] ‘smoke’ |
| /fèwʔ/ | [fēwʔ] ‘strong bad smell’ | /fèw/ | [fēw] ‘to tie’ |
| /fìwʔ/ | [fìwʔ] ‘beam’ | /fìw/ | [fìw] |
| /hìwʔ/ | [hìwʔ] ‘rituals guider’ | /hìw/ | [hìw] ‘jaguar’ |
| /wìwʔ/ | [wìwʔ] ‘draw territory lines’ | /wìw/ | [wìw] ‘wasp’ |
In nasal contexts, /w/ undergoes nasalization [ẁ̃ʔ]:

81) /~hₐw/ [h̃ǎw] ‘come/return’
    /~hãw/ [hãẁ̃ʔ] ‘become covered by vegetation’

/~dₐw/ [nãẁ̃ʔ] ‘tell a story’
/~pₐw/ [pãẁ̃ʔ ‘burnin feeling skin’
/~ʔiₐw/ [ʔĩw] ‘to hide in between’
/~/ [ʔɪ̃w] ‘to sleep’

### 2.1.5.9 Summary of glottalized series

As seen in this subsection on glottalized consonants, Kakua has a set of glottalized voiced obstruents and glottalized glides distinct from the set of plain voiced stops and glides. This series of glottalized consonants does not have contrastive voiceless glottalized counterparts (there are no glottalized voiceless stops).

An alternative, but less elegant, analysis for glottalized consonants would be to suggest that these are not one single segments but rather they are underlyingly consonant clusters made up of two segments /C/ + /ʔ/. In nasal contexts the glottal stop would then assimilate as a homorganic voiceless consonant. This analysis, however, is made less appealing by the fact that no consonant clusters seem to be allowed in Kakua’s syllabic and word structure. Therefore, if glottalized consonants were to be considered two separate segments /C/ + /ʔ/, this set of clusters will not be allowed in morpheme-internal position. Also, this analysis would not predict why the cluster combination is limited to a small set of consonants and not applied to the entire phoneme inventory. Additionally, it seems that many languages throughout the Amazonian region have glottalized consonants of some sort (see Michael et al. 2015). This regional pararell gives grounds to argue for an areal feature of glottalized (restricted in its distribution) series of consonants, and accepting the glottalized consonant series as a phonologically plausible analysis.

### 2.1.5.10 Affricate ʧ

In a previous version of the description of Kakua phonology (Bolaños 2010), I had proposed that [ʧ] is an allophone of /ʃ/’. Here I propose that /ʃ/’ as a phoneme in its own right, with a restricted distribution.

Recall from §2.1.2.4, §2.1.2.4 and §2.1.2.6 above that there are other consonants occurring with a restricted distribution, i.e., /g/, /l/, and /Ɂ/.

Table 2.14 below summarizes the allophonic variations of /ʃ/’
Table 2.14 Allophonic variation of /ʧ/

<table>
<thead>
<tr>
<th></th>
<th>morpheme-initial</th>
<th>morpheme-medial</th>
<th>morpheme-final</th>
</tr>
</thead>
<tbody>
<tr>
<td>oral context</td>
<td>[ʧ]</td>
<td>no medial position</td>
<td>no final position</td>
</tr>
<tr>
<td>nasal context</td>
<td>[ʧ]</td>
<td>no medial position</td>
<td>no final position</td>
</tr>
</tbody>
</table>

The following examples illustrate /ʧ/ in its restricted morpheme-initial distribution. Note that /ʧ/ is different from /j/ and /t/.

82) /ʧêw/ [ʧêw] ‘to tie’  /ʧêw/ [ŋʧêw] ‘sun’
 /ʧi:/ [ʧi:] ‘to leak’  /ʤi/ [‘ʤi] ‘grease/fat’
 /ʧib/ [ʧib] ‘seed’
 /ʧêj/ [ʧêj] ‘to look up’  /ʤêj/ [‘ʤêj] ‘to poison’
 /ʧêjʔ/ [ʧêjʔ] ‘hand’

/-ʧǎw/ [ʧǎw]/ ‘to stop’
/-ʧəd/ [ʧən] ‘friend/partner’

2.1.6 Comparative note

It is very relevant to note that a very similar phonological pattern of glottalized consonants has been proposed for Hup (Epps, 2005, 2008) and Yuhup (Ospina 2002, Martins 2005,). In these languages the glottalized consonants also have very similar phonetic realizations and a wide range of allophonic distinctions. This parallelism is, in fact, very interesting from a typological perspective for two reasons: i) this strikingly similar phonological pattern of glottalized consonants is being displayed by apparently unrelated languages spoken in the same linguistic area. If this is a shared phonological feature among Kakua, Hup, and Yuhup, it is interesting to understand how exactly these glottalized consonants are prone to be shared whereas other sounds are not (for example, both Hup and Yuhup show a much diverse set of contrastive vowels than Kakua). ii) It is also interesting that this phonological pattern is not found in the neighboring Tukanoan languages. It is important to note, however, that Epps’ (Hup) and Ospina’s (Yuhup) analyses differ with regard to glottalized consonants. However, more recent analysis on Yuhup presented by Silva & Silva (2012) is much more similar to Epps’ (2008) analysis of Hup with regard to the phonological description of these two sister languages.

Recall that the classification of the ‘Makú’ family strongly relied on Koch-Grünberg’s perception of the ‘Makú’ languages having a similar sound (see discussion in Chapter 1 on the history of the classification of the ‘Makú’ family). For future research it will be very interesting to inquire into the etymological source of the glottalized versus non-glottalized counterparts of these phonemes, and evaluate if possible, whether these sounds were present in the proto Kakua-Nikak phonology, or if they were introduced in the languages as loans.
2.1.7 Phonotactics of consonants

This subsection summarizes the distribution and restrictions on Kakua’s consonants.

Unlike neighboring Eastern Tukanoan languages, Kakua presents closed syllables. Moreover, the preferred syllabic structure in Kakua is CVC (see section §2.2 below).

With the exception of Kakua’s fricative /ʃ/, lateral /l/, and affricate /ʧ/, any consonant in the phonemic inventory can occur in coda position.

With the exception of Kakua’s voiced velar obstruent /g/ and the series of glottalized consonants, both voiced obstruents /bɁ/, /dɁ/, /gɁ/ and glottalized glides /jɁ/ and /wɁ/, all consonants may occur in onset position.

Sequences of consonants within the same morpheme are strongly avoided in Kakua’s morphemic structure (see Section §2.4 for morpheme/word structure).

2.2 Syllable structure

2.2.0 General description: syllable

The preferred syllable structure in Kakua is CVC. Most of Kakua’s morphemes are monosyllabic (84% of the word list used for this work). Syllables without an onset occur only in V-initial affixes.

Though at a lower rate, open syllables (CV) are also encountered. In word-final position, however, these open syllables undergo phonetic vowel lengthening, forming heavy syllables [CV:].

The process of phonetic vowel lengthening, together with Kakua’s preferred CVC syllabic structure, seeks to produce heavy syllables as the ideal prototype of syllabic structure (as the hierarchy below shows).

The syllabic weight can be understood in terms of a continuum favoring CVC syllables, and whenever an open syllable cannot be avoided, then phonetic vowel lengthening provides extra weight to the surface structure. Virtually, this continuum will gradually become flexible in order to include less preferred structures until finally reaching the less heavy syllabic structure:

\[
\begin{align*}
\text{CVC} &> \text{CV:} > \text{CV} > \text{VC} > \text{V} \\
/\text{CVC}/ &\text{ includes: content word roots, affixes, clitics} \\
/\text{CV}/ \text{ (and [CV:]) includes: content word roots, affixes, clitics} \\
/\text{VC}/ &\text{ includes: V-initial affixes} \\
/\text{V}/ &\text{ includes affixes}
\end{align*}
\]

In mono- and bisyllabic loans involving root-final open syllables, the CVC structure is adopted whenever possible, demonstrating a preference for the CVC syllabic pattern. In borrowings with open syllables, by default the glottal stop /ʔ/ is
epenthesized in the coda position of the final syllable of the word. Speakers of Kakua speaking Spanish usually transfer the CVC pattern to Spanish:

<table>
<thead>
<tr>
<th>Spanish</th>
<th>Kakua</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>[si]</td>
<td>[tiʔ]</td>
<td>‘yes’</td>
</tr>
<tr>
<td>[pa.peʔ]</td>
<td>[pa.pe.ʔaʔ]</td>
<td>‘paper’</td>
</tr>
<tr>
<td>[me.sa]</td>
<td>[me.saʔ-паʔа]</td>
<td>‘table-cl.flat’</td>
</tr>
<tr>
<td>[ма.ɾi.na]</td>
<td>[ʔинãʔ]</td>
<td>‘Marina’ (proper name)</td>
</tr>
</tbody>
</table>

As noted in the examples above, in loan words the glottal stop occurs as a default epenthetic consonant as a strategy to increase syllable weight, forming an ideal heavy CVC syllable, whether epenthesized in onset or in coda position.

Vowel-initial suffixes do not insert any epenthetic consonant at the syllable/morpheme boundary even when the morpheme to which the suffix attaches is an open-syllable morpheme: CV-VC. This shows evidence that these V-initial suffixes do not have empty consonant slots. Some of these V-initial suffixes do have unspecified vowel slots (e.g. past marker -Vp) in which cases the vowel in the suffix copies the vowel quality of the root to which the suffix is bound.

### 2.2.1 Bisyllabic morphemes

As noted above, Kakua does not have diphthongs or syllable-internal consonant clusters. Bisyllabic morphemes are no exception and neither consonant clusters nor diphthongs are allowed within the same morpheme. In addition, bisyllabic morphemes also do not have coda consonants in the second syllable. This sets a CV-CV syllabic structure for bisyllabic morphemes; however, note that bisyllabic morphemes represent only a 16% of the word-list in my data of Kakua. In the remaining majority of words in my data, CVC syllables represents the overall preferred syllabic structure.

At the morpheme and word level consonant clusters are frequently avoided by inserting an epenthetic vowel in between adjacent cross-morphemic consonants. The epenthized vowel copies the last vowel of the morpheme that precedes it in the bound construction. However, some Spanish loans (as noted above in Section 2.1.2.6) have a consistent /a/ epenthetic vowel. A probable explanation for this exception is that these borrowings were introduced into Kakua through contact with Cubeo or other Tukanoan language instead of assuming that the consistency with the epenthetic /a/ is responding to a process developed in Kakua (see examples in (83) below).13

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13 Or possibly also from Nheengatu, which does the same thing and is probably the source of a lot of these loans (see Epps 2007 for similar discussion in Hup).
As noted above, Kakua strongly favors monosyllabic morphemes. Native Kakua morphemes are limited to two syllables. Morphemes with more than two syllables are highly likely to be borrowings:

- **parōlaʔ** ‘lantern’ (Spanish [fa.’rol])
- **ʧilulalaʔ** ‘pants’ (through Cubeo? probably originally from Portuguese)
- **piʧanaʔ** ‘cat’ (Portuguese ‘bicho’)

The multisyllabic borrowings from Spanish are often shortened when phonologically nativized in Kakua. Examples of these shortenings includes names of persons: [ʧent] ‘Vicente’, [ʔĩnãʔ] ‘Marina’, [ʧaběʔ] ‘Isabel’.

In a few exceptional cases, borrowed words do not undergo reduction of syllables; most of these cases correspond to Spanish loans that have word-final consonants that cannot occur in this position in Kakua, i.e. [l], [ɾ]. Such is the case of the word for book **papelaʔ**, borrowed from Spanish **papel** ‘paper’. Because Kakua lateral /l/ cannot occur in word-final position, an epenthetic vowel is inserted in the word-final position; finally, a glottal stop is also epenthized in the final position, following Kakua’s preference for closed syllables (however it is possible that these forms were borrowed already with this form from Cubeo, as mentioned above).

Finally, it is important to note another characteristic of bisyllabic morphemes, namely that most of them exhibit a form of vowel harmony, whereby the same vowel quality is shared across the two syllables. At this point of my research I have not yet dedicated sufficient analysis to reach a robust explanation for the cases where vowel harmony does not occur in bisyllabic morphemes. One possible analysis to account for bisyllabic morphemes in which vowels do not share the same quality is that these words originate in lexicalization of a bimorphemic form:

- **/wê.bit/** ‘child’ probably from /~wěʔ/ ‘change of shape’ (like from cocoon to butterfly) + /bit/ ‘other’: ‘other/one that is changing/mutating’

- **/~bu.li-jʔû/** ‘ear-CL.cover’ probably from /~bu/ ‘edge/border/ + ?/laj/? ‘make noise’ or ?/did/? ‘send a message’.

In sum, the great majority of Kakua’s bisyllabic roots do exhibit vowel harmony. Most exceptions are restricted to kin and body part terms. The exceptions are probably historically compounds, or loanwords.

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14 Exceptions to this includes some proper names, or bird names or names that are likely to be derived from onomatopoeic sources, e.g., **burakutuʔ** ‘type of night owl’.

2.3 Suprasegmental phonology

2.3.0 Introduction

The two primary suprasegmental features in Kakua are: i) contrastive tone levels, and ii) nasalization.

These features have phonemic status and occur at the syllabic or morphological level rather than at the segmental level.

This section is organized into two main subsections. Subsection §2.3.1 offers a description of nasalization in Kakua. Subsection §2.3.2 describes the tone system and its realization.

2.3.1 Nasalization

Nasalization in Kakua is a prosodic property of the morpheme that affects all segments within the morpheme (this excludes voiceless obstruents and the glottalized palatal glide in initial position given that they cannot be affected by nasalization). Every morpheme is specified as either being fully nasal or fully oral. Segments do not contrast at the phonemic level for nasality or orality, which cannot be considered properties of individual segments. Nasal morphemes in the phonemic transcriptions of this work are represented with a leading tilde: /~CVC/ (for monosyllabic roots, note that bysyllabic roots, affixes and clitics can have a different syllable structure).

As noted above, with the exception of voiceless obstruents and the glottalized palatal glide, nasalization affects and spreads throughout all segmental phonemes of the morpheme, which thus have both nasal and oral variants depending on the nasal or oral value of the morpheme in which they occur. Thus [m], [n], [ŋ] are all allophones of the voiced stop series /b/, /d/, /ɡ/, and glottalized [mɁ], [nɁ], and [ŋɁ] are allophones of the glottalized stops /bɁ/, /dɁ/, and /ɡɁ/.

The palatal glide /j/ has a nasal allophone [ɲ]. The fricatives /f/ and /h/ as well as the bilabial glide /w/ are also nasalized in nasal contexts. Also, glottalized glides /wɁ/, and /Ɂj/ have nasal allophones which vary depending on their position within the morpheme (see §2.1.2.7 above). Glottalized palatal glide /Ɂj/ is realized as a voiceless africative [ʧ] in morpheme-initial position. When in this position, the glottalized palatal glide does not undergo nasalization, following in this way the pattern for voiceless stops.

Likewise, vowels also undergo nasalization in nasal environments (i.e. in nasal morphemes).

Morphemes contrast on the basis of nasality or orality. This is illustrated in the following minimal, or near minimal, pairs below:

86) /hâʔ/ [hâʔ] ‘domesticated wild animal’
    /~hâʔ/ [ɦâʔ] ‘too small to fit’

87) /tʃɛj/ [tʃɛj] ‘to look up’
    /~tʃɛj/ [Ɂtʃɛj] ‘cocoon’
88) /pàb/ [pàb'] ‘cotton’

~/pàb/ [pàm] ‘to sleep together’

89) /did/ ["did"] ‘send a message’

~/did/ [nin] ‘PROX.DEM’

90) /jà/ ['ʧjà:] ‘walking-stick (insect sp)’

~/jà/ [pà:] ‘to soften food/a thing’

91) /wɨ̀t/ [wɨ̀t̚] ‘command/REP.EVID (enclitic)’

~/wɨ̀t/ [ẁ̃ɨ̀̀̃t̚] ‘name’

92) /ʔèd/ [ʔèd] ‘fruit sp. (lulo)’

~/ʔěd/ [ʔě̀̃n] ‘to see’

93) /bɨ̌bɁ/ [mɨ̌mb̚] ‘louse’

~/bɨ̂bɁ/ [mɨ̂̀̃mp̚] ‘search for lice’

94) /fɨ̀bɁ/ [f̃ɨ̀̀̃m] ‘to smoke’

~/fɨ̀b/ [f̃ɨ́m] ‘be hard’

In general, nasalization does not spread beyond the morpheme. The spreading of nasalization only occurs in vowel-initial suffixes. Elsewhere, if a nasal morpheme is compounded with an oral morpheme, the oral morpheme is not affected and does not undergo nasalization.

An example of nasal spreading onto vowel-initial suffixes is given below. The form of the past marker is -Vp, where the vowel of the past -marker morpheme is underlyingly unspecified. The vowel portion of the past suffix -Vp copies the features of the vowel of the root to which it is attached:


When the suffix (or clitic) is consonant-initial, no nasal spreading occurs. The following examples show the clitic =be ‘REC.PST’ occurring with nasal morphemes. Note that the nasal feature of the morphemes to which =be is encliticized, does not spread onto the clitic:

96) ~/hěbɁ/ [hěm̚] ‘eat’ + /=be/ ‘REC.PST’ → [hěm̚be] ‘just ate’.

97) ~/wîn/ [wî] ‘be sick’ + /=be/ ‘REC.PST’ → [wînbe] ‘was (recently)sick’.

Additional examples are given below, involving the classifier suffix /-daɁ/, and the clitics /=dîʔ/ ‘OBJ’, and /=bũ/ ‘LOC’:

98) ~/wěb/ [wěm] ‘1SG’ (I) + /=dîʔ/ [dîʔ] ‘OBJ’ → [wěm=dîʔ] ‘1SG=OBJ’

99) ~/bũ/ [mũː] ‘house’ + /=bũ/ [mũː] ‘LOC’ → [mũː= bũː]
100) /bàb/ [màm] ‘liver’ + /-daʔ/ [daʔ] ‘CL.round’ → [màm-daʔ] ‘liver’

Regressive nasal spreading across morphemes does not occur. Consider examples in 101) and 102) below:

101) /bàj/ [m bàj] ‘be small’ + /-di/ [nǐ] ‘ADJVZ’ → [“bāj-nǐ] ‘(the) small one’


Even in cases where a postnasalized voiced stop or vowel-final morpheme is followed by a nasal suffix, nasal spreading does not occur:

103) /bǎb-~di  hî~da/ [m bǎb m nĩ hî:nã] be.white-ADJVZ strain=DECL

‘strain manioc beer’

Words borrowed from Spanish do present forms combining nasal and oral segments in the same morpheme. These words are predominantly personal names:

104) andé ‘Andrés’

nabé ‘Bernabé’

habón ‘jabón’ (soap)

Examples (86)-(104) of this section show that nasality and orality in Kakua are, properties of the morpheme as a whole for native words, with the exception of vowel initial suffixes. These suffixes which copy the vowel quality from the root to which they attach, e.g. the nominalizer suffix -at ‘NMLZ’, undergoes nasal spreading and as such can be considered as copying the nasal property of the morpheme to which it attaches.

### III. Comparative note

The quality of nasality or orality as a suprasegmental property is found to be a phonological feature widely spread among Eastern Tukanoan languages, suggesting that prosodic nasalization in Kakua responds to a Vaupés areal feature.

A phonological sketch of Kakua’s sister language, Nikak, proposes nasalization as a prosodic feature in Nikak (see Cabrera et al. 1999). Presumably, Nikak speakers previously inhabited the Vaupés area before heading west to their current territory. The fact that Nikak also has prosodic nasalization presents two interesting questions to be pursued: First, it would be interesting to look at the possibility that suprasegmental level nasalization was already present in proto Kakua-Nikak. A second possibility, is to consider whether or not the suprasegmental nasalization feature found in both Kakua and Nikak could have been motivated by areal diffusion, introduced through contact with the Eastern Tukanoan languages before Nikak migrated outside the area onto the west. Eastern Tukanoan languages, is worth noting, have been described as having nasalization as a suprasegmental property. An inverse alternative is also possible. Where Kakua-Nikak passed on the
suprasegmental nasalization phenomena to the languages that arrived into the area after Kakua-Nikak have already been settled ther.

Unlike Eastern Tukanoan languages, Kakua does not present spreading of nasalization into units beyond the morpheme to which it is specified. From a comparative perspective, this represents a significant difference with the nasalization pattern found in the Tukanoan languages spoken in the Vaupés.

It could also be the case that suprasegmental nasalization in Kakua and Nikak was already in place in the proto language before their contact with Tukanoan languages. However, the fact that nasalization in these languages is so similar to what is found in many other of the Vaupés languages, makes it highly likely that this phonological feature responds to an areal pattern. If so, it would also be very interesting to determine whether prosodic nasalization affected Kakua and Nikak before their splitting or independently after the splitting.

Finally, Epps (2005:76-77) discusses the possibility that prosodic nasalization has developed in Hup through contact with Tukano, given the absence of nasalization as a suprasegmental feature in Dâw and Nadêb (Hup’s sister languages spoken outside of the Vaupés area and in little contact with Tukano).

### 2.3.2 Tone

Although contrastive lexical tone seems to be a phonological feature shared by a good number of languages all the way from the Vaupés area to Peru (Aikhenvald & Dixon, 1999:10), the typology of tonal systems of Amazonian languages has only recently begun to be explored. Hyman (2010) has investigated correlations between tone, metrical stress, syllable structure, coda voicing, and laryngealization in a number of Amazonian languages and suggests that it is possible that the development of tone in at least some South American languages is relatively recent (Hyman 2010:7).

Previous studies of the tonal system of Kakua are limited to Cathcart’s (1979) manuscript, and Hyman’s short (two-page) interpretation of this manuscript (Hyman n.d.). In Cathcart (1979) the inventory of tones in Kakua is described as having 4 tonal values: /H/, /L/, /HL/, and /LH/. Based on my data, I propose that Kakua displays a tonal inventory of 3 contrastive phonological tones: LH [rising] (/LH/ [LH]), HL [falling] (/HL/ [HL]), and L [low] (/L/ [L]). The analysis presented in this section is still in progress and should be taken as preliminary. Some problematic issues are discussed in §2.3.3 below.

I have chosen to orthographically represent Kakua’s three phonological tones with diacritics above the vowel in which the most of tone is realized (as it has been used throughout the text of this work). The realization of tone is discussed in more length in the present section). The three tones are represented as follow: LH [rising] tone with a caron [ˇ]; HL [falling] tone is represented with a circumflex accent [ˆ]; and L [low] tone with a grave diacritic [˘]. Note that even though tone is marked above one specific segment (the vowel), it should be understood as a prosodic feature associated with the entire morpheme.
Example in (105) below illustrates the three contrastive tones in Kakua in monosyllabic words with identical segments:

105) /L/: /ba/ [màː̃ː] ‘dig out dirt leaving dirt by the side of’

/HL/: /màː̃ːba/ [màː̃ː] ‘be old/wood’

/LH/: /màː̃ːba/ [màː̃ː] ‘leader’

Bisyllabic morphemes with contour tones could be analyzed as sequences of H-L, or L-H. However, accepting this as the phonemic tonal contrast for bisyllabic morphemes would create a more complex and more restricted tonal system in which monosyllabic morphemes would behave differently than bisyllabic ones. Note in this context that the [L] portion of a /HL/ contour tone blocks further spreading of the [H] portion of the contour, showing that the [L] tone in the contour is active, blocking spreading.

The way I argue to account for the phonetic realization of contour tones in bisyllabic morphemes is to assume the morpheme as the domain of tone. Hence, in the presence of contour tones, the contour is accommodated on the syllable receiving the highest peak of the contour, while the other syllable will hold the low pitch of the contour. Thus, a HL [falling] tone is typically accommodated on the first portion of the (bisyllabic) morpheme and drifts down towards the end of the morpheme, being audibly perceived as a HL-L melody.

Likewise, in the presence of a LH [rising] tonal morpheme, the lowest peak of the LH contour is accommodated on the first portion (i.e., syllable) of the –bisyllabic- morpheme gradually rising towards the end of the morpheme where the highest peak occurs. Consider the following phonetic representations below for bisyllabic morphemes:

106) Morpheme level tonal distinction

/LH/ /màː̃ːba/ [hèwè] ‘a moving unspecified entity’

/HL/ /hàː̃ːba/ /hèwè] ‘be open’

/L/ /hàː̃ːba/ /hàː̃ːba/ [hèwè] ‘a clearing in the forest’

16 Describing the phonetic realization of contour tones in this way may be compatible with a description of Kakua as a language with a word-accent system. Pitch, accent, and stress is not described in this phonological description of Kakua, primarily because of the limitations on providing a robust analysis of these phonological phenomena. It is important, however, to highlight that other languages of the region (like Hup, for example, see Epps 2008), have been described as having a kind of pitch-accent system, in which each word receives stress, and tone is realized on the stressed syllable. The unstressed syllable in these type of systems is not assigned any tone, which means that it is phonetically pronounced as a [L] tone. This is an attractive analysis for Kakua since, it would allow to propose that in the presence of a contour tone, the stressed syllable attracts the [H] portion, while the unstressed syllable attracts the [L] tone, accounting in this way for the peculiar feature that HL occurs only on the first syllable while LH occurs only on the second. This analysis would involve analyzing tone as a feature linked to a stress property rather than as a property of the morpheme.
An example of contrastive tones involving bysillabic words is given in (107):\textsuperscript{17}

\begin{itemize}
  \item \(/L/: \quad /ˈfili/ \quad [fili] \quad ‘\text{to soften}’
  \item \(/HL/: \quad /ˈm̩fiɡi/ \quad [fiɡi] \quad ‘\text{to melt}’
  \item \(/LH/: \quad /ˈm̩fiɡi/ \quad [fiɡi] \quad ‘\text{drag water inside a river by the force of water}’
\end{itemize}

Tonal contrasts are not restricted to particular word-classes, and all the different tone levels can be found in any of the word classes. The examples in (108) and (109) below show tone distinctions occurring in both noun verb roots:

\begin{itemize}
  \item \(/n̩ –bej/ \quad [m̩ɛj] \quad ‘\text{prints}’
  \item \(/n̩ –bej/ \quad [m̩ɛj] \quad ‘\text{fish trap}’
  \item \(–bih/ \quad [m̩iḥ] \quad ‘\text{river/arm}’
\end{itemize}

\begin{itemize}
  \item \(/n̩ \, \text{hid}/ \quad [h̩i̩d̩] \quad ‘\text{to surround (in a circle)}’
  \item \(/n̩ \, \text{hid}/ \quad [h̩i̩d̩] \quad ‘\text{teach bad habits}’
  \item \(–hud̩/ \quad [h̩u̩nt̚] \quad ‘\text{defecate}’
\end{itemize}

Some affixes and clitics are inherently toneless. Their pitch value is assigned from the tone of the immediately preceding tone-bearing morpheme. This means that a portion of the contour tones will spread onto the following affix/clitic: E.g., in the case of a /LH/ contour the affix/clitic will be affected by the H portion of the contour.

The group of toneless affixes and clitics consist of some TAM markers, and vowel-initial affixes that copy the vowel of the root to which they attached. Additionally, proclitics pronouns and some prefixes (see Chapter 7 and 8) are also toneless. For these pre-stem morphemes the phonetic realization is usually an L tone. The motivation for considering these proclitics and prefixes as toneless, instead of having a /L/ tone property of their own, is that these pre-stem morphemes do not necessarily have a strict pitch-level target (see description for /L/ tone in §2.3.2.3 below).

Some other affixes and clitics bear tonal distinctions on their own. A list showing tone and toneless affixes and clitics is given below:

\textsuperscript{17} It is important to stress here that in the presence of a /LH/ contour in a bysillabic morpheme, the L portion of the contour does not spread onto the second syllable. Rather, the melody will be divided in such a way that the first syllable receives the L portion of the contour, while the second syllable receives the higher portion of the raising contour (see §2.3.2.1-§2.3.2.2 below for description of contour tones).
### Table 2.15 Tone-bearing and toneless affixes and clitics

<table>
<thead>
<tr>
<th>Tone-bearing affixes and clitics</th>
<th>Gloss</th>
<th>Toneless affixes and clitics</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>-íɁ</td>
<td>‘POSS’</td>
<td>-í-</td>
<td>‘HAB’</td>
</tr>
</tbody>
</table>
| -V                              | ‘IMPERATIVE’| -ti-                        | ‘REP,EVID’ |<|—
| mik-                            | ‘REFLEXIVE /RECIPROCAL’| -ta-                  | ‘INF,EVID’ |
| -mân                           | ‘COL, PL’| -í-                      | ‘NON, VIS, EVID’ |<|—
| =hêɁ                          | ‘EMPH’  | -at                        | ‘NMLZ’ |
| =ti ~ =ti؟                   | ‘INTS’  | -ai                        | ‘ADJIZ/ A, NMLZ’ |
| =hîɁ                          | ‘COM’   | -wâ, -na, -nit            | ‘PL, AN, PL, AN, COL’ |
| =bû                           | ‘LOC’   | = jfàʔ                     | ‘D,S’ |
| =nît                          | ‘S.S’   | -bit, -beʔ                | ‘DIM’ ‘AUG’ |

<table>
<thead>
<tr>
<th>possessive proclitics =</th>
<th>(see Chapter 5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>personal pronoun proclitics =</td>
<td>(see Chapter 7)</td>
</tr>
</tbody>
</table>

-jiʔ | ‘FRUST’ | -kan | ‘NEG’ |

-îʔî | ‘TEL, PROG’ | -bip, -min | ‘FUT’ ‘INM,FUT’ |

=tagà / =tabè | ‘INF,EVID’ | -Vp | ‘PST’ |

=bûh | ‘DR’ action done from far’ | =ka | ‘ASS’ |

=héʔ | ‘EMPH’ | = be | ‘REC,PST’ |

= nit | ‘INTERR’ | = na | ‘DECL’ |

=bit | ‘ALSO’ | = hî | ‘REM,PST’ |

= diʔ | ‘OBJ’ | = wit | ‘REP,EVID’ |

The details of how toneless affixes and clitics receive their pitch value (e.g., regressively, recursively, etc.) still need to be worked out. However, it is clear that toneless affixes tend to occur at word boundaries, and tone-bearing affixes closer to the root. This is only a tendency that does not account for a good number of tone-bearing clitics shown in Table 2.15 above.

Tonal contrasts are then equipollent for the root/lexical level (contrasting the three tonal levels HL vs. LH vs. L), and tone is privative where some affixes do not

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18 For this reason, the phonetic realization of toneless affixes and clitics is represented without tone diacritics in this chapter.
bear specific underlying tones: Tone (= roots/words and some affixes and clitics) vs. No-tone (ø = affixes and clitics).

Tone is a suprasegmental property associated with the entire morpheme (the morpheme as the tonal domain). With the exception of inherently toneless affixes and clitics, a morpheme is always lexically specified for tone. No combination of tones is allowed; therefore, every tone-bearing morpheme accommodates one, and only one, tone (but see the exceptional case at the end of this section).

This distributional restriction of contrastive tones predicts that a morpheme (with the exception of the inherently toneless affixes and clitics) is specified for either entirely low tone (L), entirely rising (LH) or entirely falling (HL). This is illustrated in the representation in figure 2.17 below, where a morpheme is assigned only one tonal value.

Figure 2.18: HL, LH, and L tones in the morpheme as the tone domain

\[
\begin{array}{ccc}
\text{morpheme} & \text{morpheme} & \text{morpheme} \\
H & L & H \\
L & H & L \\
\end{array}
\]

In Kakua a morpheme has at least one and no more than two syllables (with the exception of onomatopoeic words and loans). Considering the morpheme as the domain of tone accurately accounts for the occurrence of the three contrastive tones in both mono- and bisyllabic morphemes. Figure 2.18 illustrates the root as the tonal domain accounting for mono- and bisyllabic roots:

Figure 2.19: Root as the tone domain.

\[
\begin{array}{c}
\sigma \\
\sigma \\
\sigma \\
\end{array}
\]

If the domain of tone was a smaller structure (i.e. syllable), bisyllabic morphemes would be assigned tone in an ambiguous fashion. Compare Figure 2.18

---

19 A previous version of the phonology of Kakua (Bolaños M.A thesis in 2010) proposed that the root was the domain of tone.
above with Figure 2.20 and Figure 2.21 below which predicts an ambiguous tone assignment, where the contour can be assigned to either the first or the second syllable without any clear condition predicting which syllable will host the contour:

Figure 2.20: Hypothetically ambiguous tone domain unit: the syllable

\[
\begin{array}{cc}
\text{morpheme} & \text{morpheme} \\
\sigma & \sigma \\
\sigma & \sigma \\
\end{array}
\]

Tone (e.g HL)  
Tone (e.g HL)

Furthermore, by considering the syllable as the unit domain of tone would not restrict for the occurrence of sequences of tone contrasts within the same root. Such sequences, in fact, do not usually occur in the language (see exceptional cases at the end of this section. See also an alternative analysis of tone and its interaction with stress-accent in footnote 17 above and §2.3.3 below):

Figure 2.21: Sequences of tonal contrasts within the same root

\[
\begin{array}{cc}
\text{root} & \text{root} \\
\sigma & \sigma \\
\end{array}
\]

Tone  
Tone (e.g HL-HL)

If the domain of tone were to be considered the mora, this would also create ambiguous representations of tone. If, for example, every segment of a morpheme has a mora (for example, if a voiced consonant has moraic weight, and a morpheme consists of \( CV_{\text{voice}} + VC_{\text{voice}} \)) this means that tone could virtually dock to every mora. Furthermore, no unambiguous prediction could be made regarding the mora to which the tone values should be assigned. Thus, any of the structures in Figure 2.22 below would be possible domains of tone:

\[ 20 \]

An alternative analysis is to consider the morpheme as the domain of tone phonologically (as it is presented here), but that phonetically smaller units can provide the locus for tones also to associate. This needs to be resolved in future studies of the phonology of Kakua.
Considering the morpheme as the domain for tone makes a correct prediction: if monosyllabic morphemes do not allow for more than one tone or tone sequences, then it makes sense to propose that bisyllabic morphemes do not allow for more than one tone either. Moreover, this analysis elegantly accounts for the surface realization of contour melodies in bisyllabic and monosyllabic morphemes (but see footnote 17 on an alternative analysis as a word-accent system). An illustration of the behavior of Kakua’s phonological tone distinctions is given in the subsections below.

2.3.2.1 HL contour tone

HL [falling] tone is phonetically realized as starting with a high peak pitch that falls into a low pitch, uninterruptedly passing through intermediate levels. As stated above, sequences of tones are not permitted within the same morpheme, hence, HL tone does not combine with any other tone within the same morpheme.

HL is not restricted to a particular morpheme type, syllable or moraic structure and it may virtually occur in any environment.

Examples in (110) illustrate HL contour tone in morphemes involving open syllables in monosyllabic morphemes (110), and bisyllabic morphemes (110):

110) a) /[^+H] t[^+H]ä/ [t[^+H]ä:] ‘flower’
/[^+H] h[^+H]ä/ [h[^+H]ä:] ‘to rise or wake up’
/[^+H] ~be/ [m[^+H]e:] ‘to warm the body next to a fireplace or in the sun’
/[^+H] la/ [l[^+H]a:] ‘times (e.g three times)’
/[^+H] de/ [d[^+H]e:] ‘alike/relative’
/[^+H] ?u/ [?[^+H]u:] ‘bitter’
/[^+H] ~ti/ [t[^+H]i:] ‘fire wood’
b) /HL hewe/ [hêwê] ‘be open’
/HL dawa/ [dáwâ] ‘rubber tree’
/HL fiği/ [fiği] ‘drag soil inside a river by the force of water’

Examples in (111) illustrate the HL contour tone in morphemes involving closed syllables in monosyllabic morphemes (111), and bisyllabic morphemes (111). In bisyllabic morphemes, the HL contour doesn’t fall on the second syllable. Instead, as presented in the transcriptions below, it falls only on the first syllable, whereas the second syllable receives the sequels of the L portion of the HL contour:

111) a) /HL ~ʧîji/ [ʧîji] ‘to step’
/HL ~bew/ [mêw̃] ‘prints’
/HL ŋаʔ/ [ŋâʔ] ‘to blossom’ (restricted for flowers of an entire tree)
/HL fîb’/ [fîbʔ] ‘to smoke’
/HL hap’/ [hâp̚] ‘young/new’
/HL hîd’/ [hid’] ‘surround’
/HL ŋiwʔ/ [ŋîwʔ] ‘cane or stick to hold something up’
/HL ~baj’/ [majiʔ] ‘be drunk’

b) /HL hagap/ [hâgàp̚] ‘spider’
/HL ~pejep/ [pejêp̚] ‘clay pot’
/HL bakaʔ/ [bâkàʔ] ‘body’
/HL ~higaʔ/ [hiŋâʔ] ‘be sad’

The following spectrograms illustrate minimal pairs of HL tone in open syllables, Figure 2.23, and closed syllables, Figure 2.24. Both words are shown in context in Figure 2.25.
Figure 2.23. HL tone in an open syllable /CV/ [CV:]. (/HLʧa/ [ʧâ:] ‘flower’)

Figure 2.24 Falling tone CVC voiceless syllable. (/HLʧaʔ/ [ʧâʔ] ‘to blossom’)\(^{21}\)

\(^{21}\) Note that it may be that ‘blossom’ is derived from [ʧâ:] ‘flower’, shown in Figure 2.23 above. However, it is not the case that verbs tend to derive from nouns only by adding a glottal stop.
Figure 2.25. Falling tone. Co-occurrence of morphemes with falling-tone in open and closed syllables.

/HL ʧa  HL ʧaʔ = -da = ka = HL -ʧahap/

flower  blossom = DECL = REAL = PROG

‘The flowers are blossoming’ (the flowers of an entire tree)

Voiced consonants usually accommodate part of the contour tone. Figure 2.26 below illustrates HL tone in a CVC<sub>voiced</sub> syllable.

Figure 2.26 HL tone in CVC<sub>voiced</sub> syllable (/HL ʰib/ [ʰɪbʷ])

‘price/consequence/vengeance’
In Figure 2.26 above, the lowest pitch of the HL contour is almost completely accommodated on the coda voiced stop, which might suggest an analysis as a sequence of a high and a low tone. Nonetheless, since HL contour occurs in open syllables CV (see Figure 2.23) as well as in closed syllables CVC-voice (see Figure 2.24), it would be less economical to propose that only in CVC_{voice} syllables a H-L distinction occurs. Therefore, the analysis proposed here takes it that in CVC_{voice} syllabic structures may have the same tone as other type of structures.

### 2.3.2.2 LH Tone

LH [rising] tone is characterized by a rising pitch, starting from a low pitch and gradually rising to a high pitch, uninterruptedly passing through intermediate levels.

The rising LH tone is not restricted to a particular syllable or morpheme structure, and as the examples below show, LH occurs in morphemes with open syllables, CV [CV:], and closed syllables CVC. Tables 2.16 and 2.17 illustrate minimal pairs. Some of the examples are repeated.

**Table 2.16. LH and HL minimal pairs in monosyllabic morphemes in open syllables:**

<table>
<thead>
<tr>
<th>LH</th>
<th>HL</th>
</tr>
</thead>
<tbody>
<tr>
<td>/LH ba/</td>
<td>/HL ba/</td>
</tr>
<tr>
<td>[mː:]</td>
<td>[mː:]</td>
</tr>
<tr>
<td>‘chief’</td>
<td>‘tree/wood/be old’</td>
</tr>
<tr>
<td>/LH hi/</td>
<td>/HL hi/</td>
</tr>
<tr>
<td>[hiː]</td>
<td>[hiː]</td>
</tr>
<tr>
<td>‘to shine’</td>
<td>‘son in law/strain’</td>
</tr>
<tr>
<td>/LH je/</td>
<td>/HL je/</td>
</tr>
<tr>
<td>[dʒɛː]</td>
<td>[dʒɛː]</td>
</tr>
<tr>
<td>‘avina’ (fruit sp)</td>
<td>‘fish sp’</td>
</tr>
<tr>
<td>/LH gi/</td>
<td>/HL gi/</td>
</tr>
<tr>
<td>[ɡiː]</td>
<td>[ɡiː]</td>
</tr>
<tr>
<td>‘be tired’</td>
<td>‘pineapple’</td>
</tr>
</tbody>
</table>

**Table 2.17. LH and HL minimal pairs in bisyllabic morphemes with open syllables:**

<table>
<thead>
<tr>
<th>LH</th>
<th>HL</th>
</tr>
</thead>
<tbody>
<tr>
<td>/LH hewe/</td>
<td>/HL hewe/</td>
</tr>
<tr>
<td>[hɛwɛ]</td>
<td>[hɛwɛ]</td>
</tr>
<tr>
<td>‘a moving entity’</td>
<td>‘be open’</td>
</tr>
<tr>
<td>/LH dawa/</td>
<td>/HL dawa/</td>
</tr>
<tr>
<td>[dɔwɔ]</td>
<td>[dɔwɔ]</td>
</tr>
<tr>
<td>‘a lot(quantity)’</td>
<td>‘rubber tree’</td>
</tr>
</tbody>
</table>

Figures 2.27 and 2.28 below illustrate a minimal pair contrast for LH [rising] and HL [falling] tones in morphemes with open syllables. Figure 2.29 shows these minimal tone pairs co-occurring.
Figure 2.27 Rising tone in open syllable
\(/1^1H/\text{-}ba/ [mǎː] \, \text{‘chief’}\)

Figure 2.28 Falling tone in open syllable.
\(/H^1\text{-}ba/ [mãː] \, \text{‘tree/wood/be old’}\)
Figure 2.29 Rising and falling tone in context.

\[ /^{LH}baʔi^{LH} jegeʔ^{HL} -ba-at = ka/ \]

Chief POSS clothes be.old NMLZ = REAL

‘The chief’s clothes are old’

Contour tones in morphemes involving closed syllables are shown in tables 2.18 and 2.19 below:

Table 2.18. LH and HL minimal or near minimal pairs in monosyllabic morphemes involving closed syllables

<table>
<thead>
<tr>
<th>LH</th>
<th>HL</th>
</tr>
</thead>
<tbody>
<tr>
<td>/^{LH}haʔ/ [hâʔ] ‘hole left by a fallen tree’</td>
<td>/^{HL} haʔ/ [hâʔ] ‘domesticated wild animal’</td>
</tr>
<tr>
<td>/^{LH}hebʔ/ [hëmp̚] ‘eat’</td>
<td>/^{HL} hem/ [hëm] ‘bird sp’ (gallito de roca)</td>
</tr>
<tr>
<td>/^{LH}gaʔ/ [fâʔ] ‘long.thin.pointed leaves’</td>
<td>/^{HL} fâʔ/ [fâʔ] ‘to blossom’</td>
</tr>
</tbody>
</table>

Table 2.19 LH and HL minimal or near minimal pairs in bisyllabic morphemes involving closed syllables

<table>
<thead>
<tr>
<th>LH</th>
<th>HL</th>
</tr>
</thead>
<tbody>
<tr>
<td>/^{LH}diɻg̃p/ [n̤ŋp̃p] ‘animal’</td>
<td>/^{HL} hagap/ [hâg̃p] ‘arbor’</td>
</tr>
<tr>
<td>/^{LH} hagap/ [hâg̃p] ‘arbor’</td>
<td>/^{HL} hagap/ [hâg̃p] ‘spider’</td>
</tr>
<tr>
<td>/^{LH} jegeʔ/ [ˈje̊g̃ʔ] ‘clothes’</td>
<td>/^{HL} hagap/ [hâg̃p] ‘spider’</td>
</tr>
</tbody>
</table>

Figure 2.30 and 2.31 below illustrates two minimal pairs of LH vs. HL.
As is the case of HL tone, in LH rising tone, a voiced consonant in coda position will typically accommodate part of the LH tone. Figure 2.32 below illustrates this case where the postnasalized portion of voiced consonant holds part of the highest peak of the LH contour tone.
Figure 2.32 LH tone in closed syllable with post-nasalization /\(^{LH}\) hiʔn/ [hiːdn] ‘to teach wrong; teach bad habits’

In Figure 2.32 above, the portion circled highlights the realization of LH tone where the highest frequency is still sustained during the nasal portion of the post-nasalized voiced consonant. Compare Figure 2.32 above with the falling HL in Figure 2.33 below where the nasalized portion of the post-nasalized voiced stop is accommodating the lowest portion of the HL contour.

Figure 2.33 HL tone in closed syllable with post-nasalization /HL/ /hiʔn/ [hiːdn] ‘surround, circle’
2.3.2.3. L(ow) tone

The third tonal value of Kakua’s phonological tone system is the low tone, characterized by its sustained low pitch throughout the morpheme.

Low tone is phonologically active and as stated above in the description of Kakua’s tonal system, the tonal distinctions are equipollent. The evidence for this is that those morphemes with lexical low tone always have a low-pitch target, even when occurring in the environment of contiguous roots having other tone distinctions (see 2.3.3 below for an alternative analysis where L tone might be considered also as unmarked for tone).

Morphemes bearing lexical low tone are not associated with zero or no-tone Ø. Morphemes lexically specified for low tone show contrastive minimal pairs or triplets with HL and/or LH contours. Table 2.20 below shows minimal pairs/triplets of L, HL and LH tones (some relevant examples are repeated from Tables 2.18 and 2.19 above):

Table 2.20. Low tone: minimal and near-minimal pairs/triplets:

<table>
<thead>
<tr>
<th></th>
<th>L</th>
<th>HL</th>
<th>LH</th>
</tr>
</thead>
<tbody>
<tr>
<td>/¹ ~ba' [må:]</td>
<td>‘dig out dirt leaving it by the side’</td>
<td>/'l1 ~ba' [må:]</td>
<td>‘tree/be old’</td>
</tr>
<tr>
<td>/¹ ñùh/ [ñùh]</td>
<td>‘to splash’</td>
<td>/'L1 ñùj/ [ñùj]</td>
<td>‘salt/plant sp.’</td>
</tr>
<tr>
<td>/¹ di/ [di:]</td>
<td>‘sugar cane’</td>
<td>/'L1 di/ [di:]</td>
<td>‘crawl’</td>
</tr>
<tr>
<td>/¹ hib/ [hib^]</td>
<td>‘go on a trip’</td>
<td>/'L1 hib/ [hib^]</td>
<td>‘consequence/vengeance’</td>
</tr>
<tr>
<td>/¹ hìʔ/ [hìʔ]</td>
<td>‘be bitter’</td>
<td>/'L1 hìʔ/ [hìʔ]</td>
<td>‘coati’</td>
</tr>
<tr>
<td>/¹ pìd/ [pìd^]</td>
<td>‘lift off a tree from the root’</td>
<td>/'L1 pìd/ [pìd^]</td>
<td>‘twist/twist’</td>
</tr>
</tbody>
</table>

Figures 2.34, 2.35, and 2.36 below illustrate tonal contrasts among a minimal triplet involving identical segments. The words represented in these spectrograms were produced by the same (male) speaker in elicitation:
Figure 2.34 The phonetic realization of low tone. Its mean pitch is 117Hz, its minimum pitch 100Hz and its maximum pitch is 120Hz: 
\[ L \sim ba/ \ [mə:\] \ 'dig out dirt leaving it by the side of where the hole is' 

Figure 2.35 The phonetic realization of LH [rising] tone. Its mean pitch is 143Hz, its minimum pitch is 102Hz and its maximum pitch is 220Hz: 
\[ LH \sim ba/ \ [mə:\] \ 'chief' \]
Figure 2.36 The phonetic realization of HL [falling] tone. Its mean pitch is 151Hz, its maximum pitch is 195Hz and its minimum pitch is 92Hz: /HL~ba/ [mâ:] ‘tree/be old’

These three figures show, that lexical contrast of tone is clearly detectable in the acoustic signal, at least in careful speech.

(L)ow tone is different from toneless character of some affixes or clitics see example (112) below. The toneless morphemes may be phonetically realized with different pitch levels according to the tones in its environment. Note that the form in 111b can actually not be pronounced in isolation.

112) /L~ba/ [mà:] ‘dig out dirt leaving dirt on the side of the hole’
/~/ba =~ / [ma] ‘2SG’ (proclitic)

The phonetic realization of toneless affixes and clitics is subject to: 1) the tonal specification of the morpheme to which these formatives are attached, and 2) their position within the phonological word (elements at the rightmost edge and the leftmost edge of the phonological word receive a high tone, see below). As mentioned above, the details of these processes still need to be worked out.

Finally, Figure 2.37 below shows the occurrence of (L)ow tone in context, where L is a target pitch, supporting the conclusion that L tone is not phonologically inert.
Figure 2.37 Low tone in context.

/ ^gl ju ^bak = di? ?a = ^ba-^feh = ~da = ka/

[ndʒu: “bàkdi? ?amà:-fèhnaka]

armadillo  dire = OBJ  3SG.M = dig.a.hole-leave = DECL = ASS

‘The armadillo is digging (has dug) a hole in the ground, and should be inside or is keeping something inside the hole’.

Regarding intonation, the realization of tones is additionally affected by intonation, which tends to fall towards the end of the phonological word. The phonological word associates a word-level prominence with the first high tone at the left-most edge of the phonological word and gradually downshifts toward the end of the phonological word (i.e. toward the right edge) and then a secondary high tone is assigned to the last element of the phonological word. This intonation pattern is at the same time a major indicator for the identification of the phonological word in Kakua, as including clitics. A high tone then associates with the last syllable of the clause as a boundary marker:

113) [wēbit = bũ mi-hīw = hī ?ti = tiwa = pūmi? hiwi

child = EMPH  house-jaguar = COM  3PL = play = WHILE  tapir

‘While the child was playing with the dog, the tapir escaped’

This intonation pattern applies to declarative as well as to interrogative clauses. Interrogative clauses are marked with the interrogative marker = ~dit [nit] suffixed to the verbal word, having no intonation difference with declarative clauses.
2.3.2.4 Exceptional cases

As stated in the introduction of this section, every lexical morpheme (excluding toneless affixes and elitics) must be specified for tone, and each morpheme must have one, and only one, tone. The corpus of my data shows only two exceptions where two tones co-occur within the same morpheme:

114) / LH + HL ʧaa/  [ʧãã] ‘lung’
/ LH + HL ~ʧeeʔ/  [ʧě̀̃ễʔ] ‘sardine sp’

A plausible hypothesis is that these two tone-compounded forms are derived from a compounding of morphemes with different tone distinctions that fused into a single morpheme. However, the source from which these forms might have been derived is not clear and at this point I will limit myself to simply mentioning these two exceptional cases.

Figure 2.38. Tone compounding.

2.3.3 Other possible analysis for the description of tone

Regarding the tonal inventory an alternative analysis can be proposed where instead of the three tonal distinctions presented here as HL, LH and L, only the contour tones were part of the tonal system (i.e., only HL and LH), and what is being analyzed as L tone could be, instead, described as a zero tone or atonal.22 This alternative analysis would have to account for the contexts, or constrains, that

22 Note that in Daw there is also HL and LH and [L], with [L] understood as atonal, and the atonal analysis is supported historically in that contour tones appear to have arisen where there were long vowels, while short vowels maintained the atonal value (S. Martins 2004).
condition tonal spreading over these toneless morphemes. Recall that there are some affixes that can phonetically accommodate portion of the tonal value from the stem to which they attach, whereas some morphemes (i.e., lexical roots) cannot, and thus are being described here as L tone morphemes. This suggests that tonal spreading is associated with bound morphology, but not with lexical roots, which resist spreading.

Regarding the domain of tone, it might also be possible to consider that a stress system interacts with the realization of tone, where tone would be attracted to the stressed syllable (as mentioned in footnote 17). Additionally, the mora could be another candidate to be the host of a tone. If tones would dock on moras, the syllable structure (whether mono or bisyllabic morphemes) would be less relevant for predicting where the tone should fall. Furthermore, it is also possible that phonologically the tone has a different domain than its phonetic realization. In this sense, the mora could be considered as the phonetic host of tonal values, whereas the phonological domain might be the word, the morpheme, or even the syllable (if a stress pattern is related to syllables, to the entire word, or to the morpheme).

While the analysis presented here accounts for much of the data, there are also phenomena that call for further research into the possible interactions of word-prominence, stress, pitch-accent, and the expression of tone values in Kakua.

2.4 Morphophonemics

This section will briefly address the morphophonemic processes in segmental and suprasegmental phonology.

Kakua shows processes of vowel copying, involving two suffixes of the type -V, and VC, that do not specify the quality of the vowel. These suffixes simply copy the vowel quality of the root to which they attach (these suffixes always immediately follow roots). When the root is bisyllabic and the vowels have different qualities, the first vowel of the root is copied.

The following examples illustrate the imperative suffix -V:

115) /~ba=hùj ú ~wèb=diʔ/ [mahùʤú wěmdíʔ] 2SG = listen-IMP 1SG = OBJ ‘listen to me!’

116) /~běb=diʔ ~wèb lapis-dubˁ=−da ~ba=híʔ/ [měmdiʔ wěm lapisdubˁna mahíɾí] 2SG = OBJ 1SG lápiz(SP)-CL:long.pointed = DECL 2SG = hold/keep-IMP ‘save a pencil for me’

117) /~ba=−bè-č/ [mamèːç] 2SG = call.out.someone-IMP ‘call him/her’
118) /~ba~hîgaʔ~kad= ~da= ka/ 
[mahîjãikanaka] 
2SG = be.sad-IMP-NEG = DECL = ASS 
‘don’t be sad!’

As mentioned in section §2.3.2, toneless affixes, like the past suffix -Vp, are 
unspecified for tone. In these cases, the unspecified morpheme is pronounced with 
the tonal value of the tone-bearing morpheme to which it attaches. Examples 
involving the past suffix -Vp are given below. Note that the suffix takes the tone 
value of the morpheme preceding it. It still needs to be determined how exactly other 
toneless affixes and clitics receive their pitch value. Therefore the phonetic 
transcription in these examples does not specify tone values for other toneless affixes 
and clitics.

119) /~bâـdaʔʔa=t~â:k-bèh-ep = tabè/ 
[ma-naʔʔatìkkèhèptabe] 
tree-CL:tree.like 3SG.M = NON.SENS-fall.vertically-go-PST = INF.EVID 
‘the tree was just falling down’

120) /kâdɁ=diʔ at=hîguʔ=ip = wit = be/ 
[kântdiʔ ʔatìgùʔip witbe] 
3SG.F = OBJ 3SG.M = EVID-to.appear-PST = REP.EVID = REC.PST 
‘a spirit appeared (in front of) to her’

121) /~fîd hîj~wa 
[fin hîjwā] 
yesterday take.a.handful.of.grains-PL(cubeos) 

kèt hîj-ip = be/ 
kèt hîk̪ep be] 
3PL arrive.here-PST = REC.PST 
‘the Cubeos came yesterday’

Some vowel-initial suffixes are also unspecified for nasalization, in these 
cases the nasalization feature of the preceding morpheme spreads the nasalization 
onto the unspecified vowel-initial suffix. Examples are given in (122) below. In (122) 
the vowel initial suffix -Vp is nasalized in its phonetic realization because the nasal 
feature of the preceding morpheme spreads the nasalization onto the -Vp suffix. 
Example in (122), on the other hand, shows that, since the morpheme to which -Vp 
is attached is not nasal, the vowel-initial suffix is also oral:
122) a. /~bi=ʧàh-ap=be/  
[mitʃàhâpbe]  
3SG.F = do-PST = REC.PST  
’she did!’  

b. /ʧâ~ʔa=ʧâʔ-ap=be/  
[ʧâ: ʔʧâʔâpbe]  
flower 3SG.M = blossom-PST = REC.PST  
‘the flower blossomed’  

Processes of deletion are much more common than insertion of segments; nonetheless, some borrowings from Spanish have epenthesized vowels to avoid clusters of consonants:  

123) Kakua  Spanish  English  
pedero  ‘Pedro’  ‘Pedro’ (proper name)  
barabadora  ‘grabadora’  ‘recorder’  

Some instances of devoicing seem to be associated with clan dialectal variation. These instances involve a process of homorganic (regressive) assimilation across morpheme boundaries, including root-affix boundaries. This process can be realized as either full devoicing (124) or partial devoicing (125). This process of devoicing, however, is not consistent across speakers or even for the same speaker, might be related to fast-speech:  

124) /b/ full devoicing: ["b] → [p] / p-  
[ʔa=beh-ep="be] → [ʔa-behêppe]  
3SG.M = go-PST = REC.PST  
‘he went’  

125) /b/ partial devoicing: ["b] → [b] / p-  
[ʔa=beh-ep="be] → [ʔa-beh-epbe]  
3SG.M = go-PST = REC.PST  
‘he went’  

2.5 Kakua phonology and the Vaupés  

This chapter presents an analysis of Kakua phonology. This analysis is not conclusive and future work is encouraged to deepen the understanding of Kakua phonology. A number of grammatical properties shared by many languages of the Vaupés River basin have served as grounds to define the Vaupés as a linguistic area within the wider Amazonia area. Among these shared grammatical properties are a few phonological features such as:
As seen through the analysis presented in this chapter, Kakua phonology displays all three of these shared phonological properties, and thus fits phonologically well into the linguistic profile of the Vaupés area. However, Kakua also shows other phonological features that seems not to be very widely shared among its Tukanoan neighbors. An example of this is Kakua’s syllabic structure: whereas most of Kakua’s neighboring Eastern Tukanoan languages do not have closed syllables23, Kakua presents a strong preference for CVC syllabic structure, such that roughly 84% of monosyllabic roots have a CVC structure. Nadahup languages, including Hup (Epps, 2008) and Yuhup (Ospina, 2002), also spoken in the Vaupés area, seem to be the only other languages in the region that are reported to also have a strong preference for closed syllables structures. Related to the preference for closed syllables, Kakua’s post-nasalized voiced stops are salient not only within Kakua’s phonetic realization of voiced stops, but also are a salient feature of these Nadahup languages. Post-nasalized stops have also been described as a prominent phonological feature of Hup (Epps, 2005), and Yuhup (Ospina, 2002).

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23 Barnes (1999:210) observes that most of the East Tukanoan languages have no coda. Moreover, in those languages said to have a coda, this is always a glottal stop, but the status of the glottal stop has been analyzed differently by different authors. See Stenzel (2007) for discussion of the glottal in Wanano.
Chapter 3
Types of morphemes and word classes

3.0 Introduction

This chapter presents an overview of the major word classes in Kakua. These are divided into open classes and closed classes of words. The defining grammatical features of these word classes are established by syntactic, semantic, and morphological criteria. The word classes in Kakua include nouns, verbs, a small set of adjectives, a small group of adverbs, a group of particles, and a large number of grammatical, bound morphemes.

The intricateness of Kakua’s grammar is due, for the most part, to its morphological complexity. Kakua morphology is highly affixing; most affixes are post-stem (suffixes), as is characteristic of the languages spoken in the Vaupés linguistic area (c.f., Dixon & Aikhenvald 1999, Payne 1990, Aikhenvald 2002b, 2012). Prefixing occurs in the verb phrase only and the number of prefixes in Kakua is far less than that of suffixes (see Chapter 8). Compounding in Kakua occurs very productively as a strategy of derivation, possession, or as a strategy to form new (lexical) meanings.

The verb morphology in Kakua is by far more complex than the morphology of nouns, regarding both inflection and derivation (cf., Chapter 8). A detailed discussion of inflection and word class-changing derivational processes related to a specific part of speech can be found in later chapters where for each part a thorough description is given.

Kakua syntax, on the other hand, is more simple and straightforward. The preferred order is SOV, although alternative orders are often allowed (see Chapter 12).

The word in Kakua consists of roots (at least one is obligatory) plus other optional elements such as prefixes, a large number of derivational and inflectional suffixes, and other formatives, such as clitics. Some discourse-related morphemes, namely particles serving as intensifiers, or adverbial particles, also cliticize to preceding hosts. For an overview of the definition of the Kakua word see Section §3.1 below.

The first aim of the present chapter is to offer an overview of the main types of morphemes of Kakua. Note that this chapter provides only a basic description of the main concepts that help define Kakua’s parts of speech and different morphological categories. Secondly, this chapter describes Kakua’s open and closed word classes. Open and closed word classes in Kakua differ in that open word classes admit new items, whereas the closed classes, on the other hand, strongly resist the introduction of new items.
An overview of the types of morphemes and a description of how affixes and clitics can be differentiated in Kakua is given in section §3.1.

The semantic, syntactic, and morphological characteristics of the open classes of words in Kakua are presented in §3.2. Section §3.3 provides a description of the semantic, syntactic and morphological characteristics of the closed classes of words.

3.1 Overview of types of morphemes

3.1.0 Overview of the morphosyntactic characteristics of the types of morphemes

This section summarizes the main characteristics of the different types of morphemes in Kakua.

Syntactically, morphemes in Kakua can be divided into two basic types of morphemes: free morphemes and bound morphemes.

Free morphemes are monomorphemic roots, which may represent nouns, adjectives, adverbs, or particles. Verbs, on the other hand, cannot occur as free morphemes (exceptions to this are discussed in Chapter 8 where a full description of Kakua’s verbal morphology is given).

Bound morphemes can be subdivided into three types: i) roots, ii) affixes, and iii) clitics. Bound roots have lexical semantic content, whereas formatives (affixes and clitics) tend to have a more abstract grammatical content. Some formatives, nonetheless, have a clear lexical source from which a grammatical function has been derived, and both the semantic meaning and the grammatical function can still be identified.

Most of the grammatical morphology in Kakua occurs after the stem. Thus, the set of suffixes and enclitics is larger than the set of prefixes and proclitics.

Affixes can be further subdivided into inflectional and derivational affixes. Derivational affixes are optional whereas inflectional affixes are obligatory.

A list of the different types of morphemes in Kakua is seen in Table 3.1 below:
Table 3.1 Overview of types of morphemes in Kakua

<table>
<thead>
<tr>
<th>FREE</th>
<th>BOUND</th>
</tr>
</thead>
<tbody>
<tr>
<td>• nouns</td>
<td>• verbs</td>
</tr>
<tr>
<td>• adverbs</td>
<td>• numerals (are built by</td>
</tr>
<tr>
<td>• adjectives</td>
<td>compounding of roots)</td>
</tr>
<tr>
<td>• particles</td>
<td>• inflectional (many)</td>
</tr>
<tr>
<td>(are both</td>
<td>• derivational (many)</td>
</tr>
<tr>
<td>mono and</td>
<td>• some TAME prefixes</td>
</tr>
<tr>
<td>bi-morphemic)</td>
<td>• valency-changing prefix</td>
</tr>
<tr>
<td></td>
<td>• proclitics pronouns</td>
</tr>
<tr>
<td></td>
<td>agreeing in person and</td>
</tr>
<tr>
<td></td>
<td>number with the subject</td>
</tr>
<tr>
<td></td>
<td>argument when attached</td>
</tr>
<tr>
<td></td>
<td>to verbs; indicating</td>
</tr>
<tr>
<td></td>
<td>possession when</td>
</tr>
<tr>
<td></td>
<td>attached to nouns.</td>
</tr>
<tr>
<td></td>
<td>• enclitics encoding</td>
</tr>
<tr>
<td></td>
<td>TAME values</td>
</tr>
<tr>
<td></td>
<td>• intensifiers and emphasis</td>
</tr>
<tr>
<td></td>
<td>morphemes</td>
</tr>
</tbody>
</table>

As opposed to the free morphemes and bound roots, affixes and clitics cannot function as heads of phrases. Those morphemes that can function as head of phrases are understood as words, whereas affixes and clitics form the set of formatives in Kakua. The morphosyntactic characteristics of these formatives are described in §3.1.2 below.

The semantics and morphosyntax of the different word classes in Kakua are described in §3.2 and §3.3 of this chapter.

3.1.1 Identifying affixes and clitics

A property common to affixes and clitics is that there are no pauses in between these formatives and their hosts. The main syntactic characteristic that differentiates affixes from clitics in Kakua is that clitics, unlike affixes, can attach to different hosts. The ‘freedom of host selection’ is a defining characteristic of prototypical clitics cross-linguistically (cf. Bickel & Nichols 2007: 174, see also Haspelmath & Sims 2010: 197ff.). Affixes, on the other hand, have a much more restricted syntactic distribution and are, for the most part, exclusive to a particular
parts of speech. An overview of some of the clitic morphemes and their hosts is given in Table 3.2.

Table 3.2 Examples of Kakua clitics

<table>
<thead>
<tr>
<th>Function</th>
<th>Form</th>
<th>Host</th>
</tr>
</thead>
<tbody>
<tr>
<td>proclitics</td>
<td>pronouns for 1, 2, and 3rd person singular and plural, marking possessors and subjects</td>
<td>(see Table 3.5, 3.6 below. See also Chapter 7 for thorough description of pronouns)</td>
</tr>
<tr>
<td>proclitics</td>
<td>different subject</td>
<td>=ʧaʔ</td>
</tr>
<tr>
<td>proclitics</td>
<td>declarative</td>
<td>=na</td>
</tr>
<tr>
<td>proclitics</td>
<td>inferred evidentiality</td>
<td>=taga</td>
</tr>
<tr>
<td>proclitics</td>
<td>interrogative</td>
<td>=nit</td>
</tr>
<tr>
<td>proclitics</td>
<td>same subject</td>
<td>=ni</td>
</tr>
<tr>
<td>proclitics</td>
<td>action from far</td>
<td>=buh</td>
</tr>
<tr>
<td>proclitics</td>
<td>case markers</td>
<td>=diʔ, =bū</td>
</tr>
<tr>
<td>proclitics</td>
<td>other discourse related emphasis and intensifiers particles</td>
<td>=tiʔ, =biká</td>
</tr>
<tr>
<td>enclitics</td>
<td>mood markers, epistemic modality markers, evidentiality</td>
<td>(many)</td>
</tr>
</tbody>
</table>

The freedom of host selection criterion is illustrated in examples (1)-(3). The interrogative clitic =nit can occur with a noun, as in (1), an adverb, as in (2), and a verb, as in (3):

1) \[ kān _pākuʔ = nit \]  
   3SG.M crab = INTER  
   ‘Is he a crab?’

2) \[ bi = nit \]  
   o \[ tʃeːbit = nit \]  
   now = INTER or(SP) tomorrow = INTER  
   ‘Now or tomorrow?’

3) \[ ma = fwiː-beh = nit \]  
   2SG = return-go = INTER  
   ‘are you coming back?’

Some morphemes, described here as clitics (such as the case of the clitic =buh ‘action from far’, which encodes the meaning of an action that is performed from a distance far from the actor) do not satisfy the criteria of freedom of host
selection. However, they are still being described as clitics here, because they occur after a string of clitic positions of their host. Thus, describing them as affixes would fail to account for the identity of the morphemes (clitics) which precede these set of clitics which do not have freedom of host selection.

The status of case markers as clitics vs. affixes will be discussed in some detail here, as one example how clitics can be distinguished from affixes in Kakua. Case markers have freedom of host selection in that they attach to nouns and adjectives (which share some, but not all characteristics of nouns, see section 3.3.5). On the other hand, case markers may only occur on verbs if these are in the subordinate clause (see Chapter 12 for a description of subordinate clauses in Kakua). Case markers also display a greater freedom of movement than affixes in two further respects. Firstly, they can occur on only one element of the noun phrase, rather than on each individual elements of the noun phrase (examples (4)-(8), which can be the second (4)-(6) or the first element (7).

4) \( \text{māw-bi}d\tilde{i}=\text{ip}=\text{wit}=\text{hī} \)  \( \text{[nin-dē]}=\text{di}? \)
   hit-be.big-PST = REP.EVID = REM.PST   this-like.this = OBJ

\[ /\text{bi}d\tilde{i} \quad \text{mī]/=\text{di}? \]
big    house = OBJ
‘(he) was knocking hard to this, to the big house’

5) \( \text{bi}ʔ? \quad \text{tʃēnē} \quad \text{tib} \quad \text{biʔ?} \quad \text{tʃēnē} \quad \text{tib}, \quad [\text{blīk} \quad \text{tib}]=\text{di}? \)
   other two seed other two seed one seed = OBJ

\( \text{kān}\tilde{i} \quad \text{mi}=\text{t-ʔblī}=\text{wit}=\text{hī} \)
3SG.F 3SG.F = EVID-take.out = REP.EVID = REM.PST
‘two by two seeds (he was counting), she took one seed’

6) \( \text{jēwhaptāk}=\text{jūb} \)  \( \text{[baj-ni-bit} \quad \text{bēṃ-at]}=\text{di}? \)
   midday = INTS   be.small-ADJVZ-DIM   eat-NMLZ = OBJ

\[ \text{ʔī}=\text{t-wīt-ip}=\text{wit}=\text{hī} \]
3PL = EVID-give-PST = REP.EVID = REM.PST
‘at midday they gave a little bit of food’

7) \( \text{māw-wāj-toṃ-beh}=\text{na}=\text{wit}=\text{hī}, \)  \( \text{kān} \)
   hit-pull-swing-go = DECL = REP.EVID = REM.PST 3SG.M

\[ /\text{ʔīgiʔ-ni-be}?=\text{di}? \quad \text{kān-be}] \]
have.wild.hair-A,NMLZ-AUG = OBJ 3SG.M-AUG
‘(he) hit and pulled up the one with the wild hair’
Secondly, =diʔ is attested to also occur after the remote past clitic =hĩ. Normally, the remote past clitic occurs at the very end of a construction. These examples are not common. I only have gathered a few. One such is:

8) [win-ni  baka =hĩ =diʔ]
   die=NMLZ  body =REM.PST =OBJ

   ?ĩ=t-ʔbĩ-hup =wit =hĩ
   3PL =EVID-take.out-listen-PST =REP.EVID =REM.PST
   (long ago when the eclipse was passing) they asked the dead cadaver’ (Spanish ‘el cadaver finado’)

Affixes, unlike any other type of morpheme in Kakua (this includes clitics and all of the word classes), can have syllables without onsets (see Table 3.3 below), or consist of just a consonant (Table 3.4). Also, only affixes can have unspecified vowels in their underlying structure. Thus, they allow for the copying of the vowel quality of the host to which they attach. As mentioned above, affixes do not have freedom of host selection. A list illustrating some representative examples of suffixes in Kakua and their hosts is given in Table 3.3 below:

Table 3.3 Examples of suffixes in Kakua

<table>
<thead>
<tr>
<th>Function</th>
<th>Form</th>
<th>Host</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominalizer</td>
<td>-at</td>
<td>verb</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(see Chapter 4 for description on nominalizer and nominalization)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negation</td>
<td>-kan</td>
<td>verb</td>
</tr>
<tr>
<td>(see Chapter 8 and Chapter 11)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past</td>
<td>-Vp</td>
<td>verb</td>
</tr>
<tr>
<td>(see Chapter 8 and Chapter 10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distant future</td>
<td>-bip</td>
<td>verb</td>
</tr>
<tr>
<td>(see Chapter 8 and Chapter 10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imperative</td>
<td>-v'</td>
<td>verb</td>
</tr>
<tr>
<td>(see Chapter 8 and Chapter 10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Possessive</td>
<td>-ʔt'</td>
<td>noun</td>
</tr>
<tr>
<td>(see Chapter 5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diminutive</td>
<td>-bit</td>
<td>noun</td>
</tr>
<tr>
<td>(see Chapter 5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number marking</td>
<td>-wā</td>
<td>noun</td>
</tr>
<tr>
<td>(see Chapter 4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>'PL,AN'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>'NA'</td>
<td></td>
</tr>
<tr>
<td></td>
<td>'PL,IN'</td>
<td></td>
</tr>
</tbody>
</table>

While both nouns and verbs have suffixes specific to these word classes, prefixes are exclusively verbal. These prefixes encode evidentiality and aspectual
distinctions and have valency-adjusting functions. Table 3.4 below gives a list of some representative examples of Kakua’s prefixes, their function and their forms:

<table>
<thead>
<tr>
<th>Table 3.4 Examples of prefixes in Kakua</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function</td>
</tr>
<tr>
<td>non visual evidentiality</td>
</tr>
<tr>
<td>2nd hand evidentiality</td>
</tr>
<tr>
<td>habitual aspect</td>
</tr>
<tr>
<td>reflexive/reciprocal</td>
</tr>
</tbody>
</table>

Note that the reflexive/reciprocal prefix mik- (see Chapter 7), and the prefix encoding second hand evidentiality in its reduced form t- (see Chapter 10 for description of evidentiality), when preceding a consonant-initial stem (prefix-CVC), violate the phonological restriction in Kakua that disallows consonant clusters. Note that exceptions to phonological restrictions in Kakua occur for other affixes as well (e.g. vowel copying and the onset-less syllables mentioned above). In what follows of this section, I present a set of three enclitics that can attach to various word classes to express emphasis or intensity of that constituent. These forms are: = jũb, which serves as an intensifier to nouns, with the semantic meaning of ‘truly’, or ‘really’. Example (9) illustrates this verb root jũb ‘be true’, from which this intensifier derives, occurring within a verbal construction. Example (10) shows the function of = jũb as an intensifier of a pronoun:

9) panʔni = tiʔ  nih-ip  wid- jũb = na = hĩ
   and.so = INTS  say-PST  swallow-be.true = EMPH = DECL = REM.PST
   'now (you) really messed up the saying’ (you really swallowed up the story)

10) tĩ  kāw-pēa  kān = diʔ = jũb  kāw
    fire.wood  burn-finish  3SG.M = OBJ = INTS  burn
    'once the fire was on, (I) burned him really’

This intensifier has freedom of host selection, and it can as well occur with another adverb, intensifying the meaning of the adverb to which it attaches. This is illustrated in (11) below:

11) tĩb-hĩj = nit = na  kān = diʔ  bikā = jũb
    return-come = S.S = DECL  3SG.M = OBJ  at.last = INTS
    kāw-ap = hĩ  bikā
    burn-PST = REM.PST  at.last
    'when we returned we burned him really at last, at last!’
In addition to the intensifier =jūb ‘truly’ illustrated above, Kakua narratives are full of the intensifier enclitic =ti ~ =tiɁ. Its meaning is that of an affirmation such as ‘truly’ or ‘exactly’. This intensifier =ti can also occur with both, nouns and verbs:

12) ?ã=t-hw=t=t? pĩ wēp-ep=hē?
3SG.M=EVID-come=REM.PST=INTS TERM be.strong-PST=INTS
‘he truly came really fast’

13) niwá Tʃabí wā=ʔp=ti=hī
grand.father Chabí 1SG=dad=INTS=REM.PST
‘the grandfather Sabino, in reality was my dad’

The intensifier enclitic =ti ~ =tiɁ occurs commonly in interrogative clauses, with interrogative pronouns and question words, and in adverbial particles such as pan=tiʔ ‘and so =INTS’, t=tiʔ =ma ‘then’, and with the adverbial particle hunhā =ti ‘long.ago =INTS’.

14) ?ī=ʔw=na hunhā =ti, bēʔe=nit hun = hēʔ
3PL = sing = DECL long.ago =INTS elder = S.S long.ago =INTS
‘long ago they (used to) sing, in the times of the elders’

15) pan=bi=t=t? ?ī=pĩ-nih-ip =hī
like.this =also =INTS 3PL = HAB-say-PST = REM.PST
‘just like this they always use to say’

The enclitic =hēʔ expresses contrastive adverbial emphasis like the English expression ‘just’, or ‘indeed’. This enclitic can attach to both verbs (16), nouns (17) and pronouns (18):

16) wā = beh-ep = hī f̕ aʔ-kan = hēʔ f̕ aʔ-kan = hēʔ
1SG = go-PST = REM.PST find-NEG = INTS find-NEG = INTS
‘I went and just didn’t find anything’

17) ?abwuli = hēʔ = be mi =t-beh-ep = ta = be
married-CL.FEM = INTS = REC.PST 3SG.F=EVID-go-PST = INF.EVID = REC.PST
‘just the married one left’
18) Q: \( kən \) \( koko = hi? \) 
   3SG.M coco = COM 
   ‘with coco?’ 

   A: \( kən = həʔ = ti? \) \( ?etə \) 
   3SG.M = INTS = INTS grandmother, VOC 
   ‘(with) him (Luciano) indeed grandma!’

3.2 Open classes

3.2.0 Introduction

Nouns and verbs conform the two open classes of words in Kakua. The elements of the open word classes in Kakua have, in principle, an unlimited membership. That is to say, the open classes of words in Kakua may include not only native words, but also readily accept borrowings, calques, and any other type of new lexical items such as words newly formed by semantic extensions or by the lexicalization of formerly more complex words (e.g., historical compounds that have undergone morphological and/or phonological fusion to form one complex lexical item).

The main element of the members of open classes is a noun or verb root that heads the noun or verb phrase accordingly.

Roots can be further divided into those that can occur as free elements and those that are obligatorily bound with inflectional or derivational morphology (Chapters 4 and 5 discuss the different free and obligatorily bound noun roots. Verb are described in Chapters 8 and 9).

In this study a free morpheme is understood as an element that is phonologically independent, i.e. it is not obligatorily bound to another free morpheme or to other bound morphology in order to form a full word.

A major distinction between Kakua noun and verb roots concerns the morphology each of these requires. Kakua nouns are formed by a free root that can occur without the need of additional morphology. Verbs, on the other hand, require for the most part a more complex morphology.

The main semantic, phonological, syntactic and morphological characteristics of Kakua nouns and verbs are described in the following subsections. Subsection §3.2.1 describes these main characteristics that define Kakua nouns. §3.2.2 deals with the main properties that characterize verbs.

3.2.1 Nouns

In Kakua, nouns are typically formed by a noun root which serves as the head of the phrase (a detailed description of subclasses of nouns is given in Chapter 4). Semantically, prototypical Kakua nouns are lexical items denoting things, places, names, animate and inanimate entities, abstract concepts such as thoughts and
feelings, and various ecological elements. This semantic characterization of the noun class complies with the typical typological characteristics of nouns (c.f. Givón 1979, Hopper & Thompson 1984, Thompson 1988, Schachter & Shopen 2007, among others). Examples of Kakua nouns are given in (19)-(20):

19) \( \text{nìn } \text{tíʃì, nìn } \text{Wacará} \)
   
   *this village this.M Wacará*
   
   ‘In this village, here in Wacará’

20) \( \text{wěm } \text{bìk-wili }=\text{hèʔ, tǎliʔti } =\text{díʔ, wà }=\text{tah-ap} \)
   
   1SG one-CL:fem = EMPH manioc = OBJ 1SG = plant-PST
   
   ‘I, alone, planted manioc’

Syntactically, nouns head noun phrases which can function as arguments of a predicate; thus, nouns are typical hosts for the marking of case to indicate the grammatical function of a head noun within a clause (see Chapter 6).

Kakua is a predominantly verb-final language, thus, noun phrases tend to precede the verb as illustrated in example in (21) below:

\[
\begin{array}{c|c}
\text{Noun phrases} & \text{Verb} \\
\hline
\text{bì, nìn } \text{húptʃì }=\text{díʔ, wěm } \text{tǎliʔti }=\text{hèʔ, wà }=\text{tah-ap }=\text{hè} \text{.} & \\
\text{nowDEM year/summer } = \text{OBJ 1SG manioc-root 1SG = plant-PST = REM.PST} \\
\end{array}
\]

‘Now, in this year I have planted manioc indeed’

There is no exclusive phonological trait that distinguishes nouns from other types of morphemes in Kakua.

The morphology of nouns is far less complex than that of verbs. Morphologically, and unlike verbs (see §3.2.2 below and Chapter 8 for the description of the verb morphology and structure)\(^1\), the vast majority of nouns roots can occur on their own as free morphemes. Examples (22) and (23) below illustrate nouns occurring as free morphemes:

22) \( \text{newè } \text{?à }=\text{beh }=\text{na }=\text{ka} \)
   
   man 3SG.M = go = DECL = ASS
   
   ‘the man goes away’

23) \( \text{ʔìbi } \text{wibi } \text{?à }=\text{tah-i }=\text{na }=\text{ka} \)
   
   uncle wild.turkey.hen 3SG.M = hunt-RED = DECL = ASS 3SG.M = PROG
   
   ‘uncle is hunting wild turkey hen’

---

\(^1\) Verb roots occur on their own only under specific syntactic or discourse related conditions.
Another morphological characteristic of nouns, as opposed to verbs, is that the number of affixes that combine in individual noun forms are by far fewer than those that combine with verbs. The maximum number of affixes that can be included in a simple noun form is five derivational and/or inflectional suffixes. Additionally, the Kakua noun template allows for only one proclitic, and a maximum of five enclitics. Figure 2.1 below illustrates a simplified version of the noun template. Obligatory elements are in bold (a detailed noun template is given in Chapter 4):

Figure 3.1. Simplified noun template

{PN = root(s)-suffix(es)=enclitics}

An example of a noun root and the morphology that attaches to it is given in (24) below:

24) $miʔ = tʃʃ̂ - hi̯d - biʔ - daʔ - na = héʔ$
   3SG.F.POSS = manioc-circle + DIM + CL: round + PL = EMPH
   ‘her very own little manioc breads’

Nouns do not take prefixes. Prefixes are restricted to verbs. Unlike verbs, nouns take affixes for number (25)-(26) and can be bound to shape classifiers (27):

25) $nɨw$ $nɨw - na$
   leaf leaf-PL.IN
   ‘leaf’ ‘leaves’

26) $bɨʔ$ $bɨʔ - wâ$
   louse louse-PLAN
   ‘louse’ ‘lice’

27) $wɨ - naʔ$
   leg-CL:tree
   ‘leg’

Nouns can also be the result of the nominalization of verbs. Example in (28) below illustrates de nominalization of verbs by attaching the nominalizer suffix -at. Other nominalization suffixes and nominalization strategies are described in Chapter 5.

28) $bɛm - at$ $wiʔ - kan$
   eat-NMLZ exist-NEG
   ‘there was no food’

---

2 See chapter 4 for a description of nominalization of verbs when taking shape classifiers. See chapter 5 for a description of classifiers in Kakua.
Only nouns can be possessed (alienable/inalienable possession. Possession is described in Chapter 5). Example in (29) below illustrates possession on a nominalized verb. Example (30) shows possession on a noun:

29) fɨʔi \(=\) min-āt
   1PL 1PL.POSS = speak-NMLZ be.on.top
   ‘only in our language’

30) nun-hɛf-kan = ħi
    wɛm  kołombi-a?-haʔ?=diʔ?
    be.down.below-know-NEG = REM.PST 1SG Colombia-POSS-mouth = OBJ
    ‘I did not know any Spanish’ (I didn’t know any Colombian mouth)

The strategy for negation in nouns differs from that of verbs in that verbal negation is marked with the negation suffix -kan, while the negation of nouns is expressed through existential negation, as in (31):

31) kɛt  webi’t  wɛiʔ-kan  yeǧeʔ  wɛiʔ-kan
    3PL  child  not.exist-NEG  clothes  not.exist-NEG
    ‘They don’t have children and don’t have clothes’

It is also an exclusive characteristic of nouns that they can be modified by numerals, or take quantifiers. Additionally, numerals and quantifiers can themselves function as head of noun phrases.

Finally, noun compounding is a productive strategy in Kakua of derivation or to express possessive relations. Noun compounding is described in Chapter 5.

The following list summarizes the main properties of nouns in Kakua. Properties summarized in (a)-(c) are exclusive to nouns; these properties also apply to derived nouns, but the underived noun roots are most relevant for establishing the difference between word classes. Properties summarized in (d) and (e) are properties shared between nouns and verbs.

a) Semantically: they refer to human beings, places, things, animate & inanimate entities, abstract notions
b) Syntactically: nouns function as heads of noun phrases. Noun phrases can function as arguments. Inflection for case occurs only on the noun phrase and on adjectives, and on verbs only when they are functioning a complements (see Chapter 13 on complement clauses).
c) Morphologically: there is a smaller repertoire of bound morphology that can combine with nouns than the repertoire of morphology that combines with verbs. The morphology of nouns includes the marking of number, shape and/or case. Nouns do not take prefixes.

---

3 Negation, both verbal and existential negation, is described in chapter 12.
d) Nouns form an open class of words. There are productive means to derive new elements (e.g., by compounding) or to allow new members (e.g., by borrowing, calquing). The noun parts of speech is formed by a potentially unlimited number of elements, including animate entities (human and non-human), inanimate mythological entities, objects, natural phenomena, toponyms, and anthroponyms among others.

e) Nouns can be monomorphemic (formed by a single free morpheme), or poly-morphemic (i.e., compounding, derivation).

3.2.2 Verbs

Verbs form the second open word class in Kakua. In general, the verb part of speech is formed by lexical items that function as heads of verb phrases. Semantically, in accordance with the typologically expected semantics of verbs (see Schachter & Shopen 2007: 9-13), Kakua verbs express actions (e.g., ʧǎ k ‘bite’), processes (e.g., mǒp ‘to rot’), and temporal or permanent states (e.g., paʔ ‘be.like’; ḫɛp ‘be.jealous’). In other words, Kakua verbs prototypically express relations that are anchored in time, processes or actions, or more general atemporal states of being such as dɨ ‘be red’, nɨm ‘be below’, etc. States denoting inherent or temporal properties are usually expressed by descriptive verbs (see Chapter 8 for a detailed description of verbs).

The semantic concepts expressed by verbs differ considerably from those expressed by nouns. Based on semantics itself, verbs and nouns can be identified as two different parts of speech. Morphological and syntactic properties of verbs are addressed below in this section.

Unlike nouns, verb roots in general cannot appear as free forms, i.e. cannot be uninflected. With the exception of some specific contexts in which verb roots can appear as free forms, verbs always require minimally a mood suffix (the exceptional contexts in which verb roots can appear as free forms are discussed in detail in Chapters 8 and 9).

All of the tense, aspect, mood and evidentiality distinctions are encoded in verbal morphology, but note that some of the enclitics encoding tense, aspect, mood and evidentiality can also occur on other parts of speech.

A verb root must always be specified by mood (enclitic), and when the specific semantic and discourse related criteria are met, the proclitics must always precede the verb root. Verb roots occurring as free elements have a very restricted range of contexts, one of them being citation forms (example 26, further below). In general, verbs in Kakua consist of at least one root plus an obligatory mood (e.g., declarative) clitic. A detailed description of verb morphology and structure is given in Chapter 8.

In addition to the obligatory morphology, verbs generally take proclitics that agree with the subject argument of the clause. For this reason, an intransitive verb marked with a person and number proclitic and a mood enclitic can serve as a complete sentence on its own:
32) \textbf{wã = beh = na}\n\[1SG = go = DECL]\n‘I am leaving’\n
A simplified verbal template is given in \textit{figure 3.2} below. Obligatory elements are in bold.

\textbf{Figure 3.2 Simplified verb template}\n
\begin{center}
\{PN = prefixes-reflexive/reciprocal prefix-root(s)-suffixes = clitics\}
\end{center}

Example (33) below illustrates the syntactic positions of morphemes in the verb template (highlighted in bold is the morphology other than verb roots):

33) \textbf{mi = t-waj-ʔãb-beh-jũ = up = na = wit = be = buh}\n\[3SG.P = \text{EVID}-\text{pull-go.up-go-toss.out-PST = DECL = REP.EVID = REC.PST = DIR}\]\n‘(it is said) She pulled him up, got him out (and) let him lying there (on the floor)’

Syntactically, verbs can head verb phrases that can function as predicates. Verb phrases in Kakua are preferably clause final. Examples (34) and (35) below illustrate verbs in their most common clause-final syntactic position:

34) \textbf{kān}\n\[3SG.M = \text{M-3SG-M-go = DECL = ASS}\]\n‘he goes’

35) \textbf{newé}\n\[jad-wĩlĩ = diʔ = \text{man-woman-CL:fem=OBJ}\]
\[3SG.M = \text{see = DECL = ASS}\]\n‘the man sees the woman’

Verb roots can compound together to derive new lexical verbs as in (36) and (37):

36) \textbf{bud-tʃũ j}\n\[\text{cut-step.on}\]
‘block the way’

37) \textbf{fũ = pĩ-nẽʔ-tʃũ-dũd = hẽʔ}\n\[\text{1PL = HAB-tighten-step-set.on.standing.up = EMPH}\]\n‘we will always only leave it clogged’ (the sewing machines)

Additionally, verb roots can succeed each other as a string of verb roots creating a complex description of one single main event. This concatenation of verb roots, or verb serialization, seems to be fairly widespread among the Vaupés
languages as a strategy for encoding a set of actions occurring as one single event (c.f. Aikhenvald 2002b, Aikhenvald 2006, Epps 2008, Aikhenvald 2012).

Example (38) below illustrates an instance of a sequence of verbs interpreted in Kakua as all describing a single event (refer to Chapter 9 for description of verb compounding and verb serialization in Kakua).

38) \( wā = ja b^\prime − ʔā b − b e h − hā d − f^\prime b − b e h = n ī t = p u i b a \)  
\( 1SG = to. pass-go. up-go-go.around.in.circles-turn-go = SS = EMPH \)  
‘I passed, went up and around and came back there, for real!’

In section 3.2.1 above on the description of nouns, examples were shown to illustrate the derivation of nouns from verb stems (nominalization of verbs, see example (28) above). This derivation of nouns allows for verb roots to occur in other non-verbal constructions. An additional example of nominalization of verb stems is given in (39) below:

39) \( mi = i p - w i n - a t \)  
\( 3SG.F = POSS = die-NMLZ \)  
‘her death’

Case marking morphology is exclusive to nouns and can only attach to verb stems once these have been nominalized:

40) \( p a t i e r a = n a \quad h i j b i = n a \quad j ē g e ? - w a j - a t = d i ? \)  
Puerto.Yeras = DECL arrive.there = DECL cloth-pull-NMLZ = OBJ

\( b u i t ē = n a \)  
learn = DECL
‘We went to Puerto Yeras to learn the sewing of clothing’

Verbs can also be adjectivized by attaching the adjectivizer suffix \(-ni\) to verb stems:

41) \( ti j \quad ti j - n i \)  
be.good be.good-ADJVZ
‘be good’ ‘good’

The following list summarizes the main characteristics of Kakua verbs:

a) Semantically, verbs denote relations anchored to temporal and atemporal processes, actions, or temporal or permanent states.

b) Syntactically, verbs can function as head of verb phrases that can themselves function as predicates.
c) Morphologically, most of Kakua’s morphology is expressed through verbal morphemes in the verb phrase. Morphological marking of tense, aspect, mood, voice and other elements, like polarity, all occur in the verb phrase.

3.3 Closed classes

3.3.0 Introduction

This section describes the closed classes of words. These classes in Kakua are parts of speech whose membership is limited and that do not allow for the introduction of new elements.

As opposed to the elements that form the open classes of words, the morphology of the members of the closed classes is more restricted, i.e., closed classes of words have a smaller range of bound morphemes with which they can occur compared to the members of the open classes.

The members of the closed classes do not allow for an unlimited number of elements. This justifies their recognition as closed word classes.

The closed classes of words in Kakua are: pronouns, interrogative pronouns and question words, demonstratives, numerals, quantifiers, adjectives, adverbs and other particles such as emphasis tags, discourse particles, exclamations, interjections, and hesitation particles.

Each of these closed classes are introduced in the following subsections and discussed in detail in further relevant chapters. An overview of Kakua’s pronominal paradigm is given in §3.3.1; interrogative pronouns and question words are described in §3.3.2. Demonstratives are presented in §3.3.3. A summarized description of numerals and quantifiers is presented in §3.3.4. The closed set of adjectives and how adjectives can be formed is described in §3.3.5. Adverbs are described in §3.3.6. Finally, the main range of Kakua’s assorted particles is be described in §3.3.7.

3.3.1 Pronouns

In this section I describe the pronominal paradigm in Kakua. This section is intended as an overview only; for a detailed description and discussion of Kakua’s pronominal forms and the pronominal system see Chapter 7.

Kakua has distinct forms for free and bound personal pronouns. Free pronouns can function as arguments without the need for extra affixes. The bound pronouns (proclitics) always precede a noun or verb. When cliticized to nouns, the bound pronouns express possessors. When cliticized to verbs, the bound pronouns function as cross-referencing proclitics of the subject argument of the clause. Unlike the free pronouns, bound pronouns do not have tone specification by default and instead their tone value is assigned by the elements following the bound pronoun.

Pronouns functioning as subject or object arguments of a clause take case markers.
Personal pronouns are specified by number (singular and plural), and person (first, second or third person). Gender distinction in Kakua is specified only for third person singular.

The Kakua pronouns are summarized in Table 3.5 and discussed in detail in Chapter 7.

Table 3.5 Kakua pronouns

<table>
<thead>
<tr>
<th>Function</th>
<th>Free PN</th>
<th>Bound PN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>wēm</td>
<td>wā =</td>
</tr>
<tr>
<td>2SG</td>
<td>mēm</td>
<td>ma =</td>
</tr>
<tr>
<td>3SG.M</td>
<td>kān</td>
<td>?ā =</td>
</tr>
<tr>
<td>3SG.F</td>
<td>kānʔ</td>
<td>mī =</td>
</tr>
<tr>
<td>1PL</td>
<td>fʔit</td>
<td>fʔ =</td>
</tr>
<tr>
<td>2PL</td>
<td>jēb</td>
<td>?ʔ =</td>
</tr>
<tr>
<td>3PL</td>
<td>kēt</td>
<td>nʔi =</td>
</tr>
</tbody>
</table>

Personal (bound) pronouns can be used to express possessors of nouns (see Chapter 5), or be combined with the possessor marker –ʔʔ, undergoing phonological fusion with the possessor marker to create possessive pronouns which are also proclitics. Free pronominal forms do not have possessive variant forms, i.e., there are no free possessive pronouns such as English ‘his, their, my’. The free forms of personal pronouns cannot be possessed, i.e. they cannot take the possessor suffix –ʔʔ.

Table 3.6 illustrates the forms for the phonologically fused person proclitics:

Table 3.6 Kakua possessive pronouns

<table>
<thead>
<tr>
<th>Function</th>
<th>Possessive PN (PN + -ʔʔ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>wʔʔʔ =</td>
</tr>
<tr>
<td>2SG</td>
<td>mʔʔʔ =</td>
</tr>
<tr>
<td>3SG.M</td>
<td>?ʔʔʔ =</td>
</tr>
<tr>
<td>3SG.F</td>
<td>mʔʔʔ =</td>
</tr>
<tr>
<td>1PL</td>
<td>fʔʔʔ =</td>
</tr>
<tr>
<td>2PL</td>
<td>?ʔʔʔ =</td>
</tr>
<tr>
<td>3PL</td>
<td>nʔʔʔ =</td>
</tr>
</tbody>
</table>
Personal pronouns can function as arguments of clauses as illustrated in example (42) below:

\[
\begin{align*}
\text{kan} & \quad \text{kan=di} \\
3\text{SG.F} & \quad 3\text{SG.N=OBJ} \\
\text{mi}=t-hěm^{'}-ep & \quad \text{wit}=\text{be} \\
\text{=ep} & \quad \text{=w} \\
\text{ɨ} & \quad \text{=t=be} \\
\text{3}\text{SG.F} & \quad \text{EVID-eat-PST=REP,EVID=REC,PST} \\
\end{align*}
\]

'She ate it' (it is said)

### 3.3.2 Interrogative pronouns and question words

The interrogative pronouns in Kakua all seem to have been derived from an interrogative element \( \text{de-} \), to which additional morphology has been added. Table 3.7 below shows the forms of interrogative pronouns in Kakua.

<table>
<thead>
<tr>
<th>Gloss</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>what</td>
<td>( \text{dedē} )</td>
</tr>
<tr>
<td>which</td>
<td>( \text{dēd} )</td>
</tr>
<tr>
<td>who</td>
<td>( \text{dēʔe} )</td>
</tr>
</tbody>
</table>

In addition to the interrogative pronouns, Kakua has a set of question words that are also built upon the basic element \( \text{de-} \), present in the forms for the interrogative pronouns. These question words are given in Table 3.8 below:

<table>
<thead>
<tr>
<th>Gloss</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>how</td>
<td>( \text{dēd}=\text{paʔ} ) (how=be.like)</td>
</tr>
<tr>
<td>where/when</td>
<td>( \text{dē} ) ( \text{dē}=\text{bā} ) ‘how many/when/where’</td>
</tr>
<tr>
<td>why</td>
<td>( \text{dē}=\text{paʔ}=\text{niʔ}=\text{na} ) (it can be translated roughly as ‘how exactly?’)</td>
</tr>
</tbody>
</table>

Interrogative pronouns and question words can be used as arguments of clauses. These words occur always sentence-initially. Examples are provided below:

\[
\begin{align*}
\text{dēʔe} & \quad \text{di} \quad \text{ti}=\text{be} \quad \text{ma}=\text{ǐ'en} \\
\text{who} & \quad \text{OBJ} \quad \text{INTS}=\text{REC,PST} \quad \text{2SG=see} \\
& \quad \text{‘Who did you see?’} \\
\text{dēdē} & \quad \text{ti}=\text{gā} \quad \text{jēw}=\text{diʔ} \\
\text{what} & \quad \text{INTS=ASS} \quad \text{sun}=\text{OBJ} \\
& \quad \text{‘what time is it?’}
\end{align*}
\]
A detailed description of interrogative pronouns and question words is given in Chapter 7.

### 3.3.3 Demonstrative pronouns

Kakua has a three-term demonstrative system: proximate, distal, and proximate emphatic. Gender inflection for demonstratives in Kakua only occurs in the proximate emphatic demonstrative pronoun.

Table 3.9 shows the forms of demonstrative pronouns in Kakua.

<table>
<thead>
<tr>
<th>Function</th>
<th>Form Demonstrative Pronoun</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Proximate</strong> 'there/this'</td>
<td>kan</td>
</tr>
<tr>
<td><strong>Distal</strong> 'that'</td>
<td>kun ~ nun</td>
</tr>
<tr>
<td><strong>Proximate emphatic</strong></td>
<td></td>
</tr>
<tr>
<td>masculine 'this right here'</td>
<td>nin</td>
</tr>
<tr>
<td>feminine 'this right here'</td>
<td>nin'</td>
</tr>
</tbody>
</table>

The proximate demonstrative *kan* ‘PROX.DEM’ is used to refer to objects which are close (though not immediately next to) to the speaker, to the hearer or to both. Also, it is used to refer to something that has already been mentioned in the discourse, e.g. ‘the one there’, or ‘this aforementioned’ object. The meaning of this proximate demonstrative can be translated as English ‘here’ or ‘there’:

46) *kan* = jûb = pûʔba

    **there** = INTS = EMPH

    ‘right there, all right!’

The distal demonstrative is used to refer to objects far away from speaker, hearer, or both. This distal demonstrative is usually also accompanied by a pointing gesture towards the distant referent. The referent can be either visible or not visible to speaker and hearer. An example is given below:
47) \( pi \, \text{kun=}na \, \text{w}i\text{d-da?} \)
TERM \( \text{that=} \) DECL sloth-CL:round

‘to that Sloth hill’ (speaker points to the place where the Sloth hill is supposed to be, although it is not visible from the point where the speech act is taking place)

The emphatic proximal demonstrative is used to refer to a referent that is immediately proximate to the speaker or hearer. It is also used to refer to the last element/participant previously mentioned in the discourse, like the latter in English. Constructions involving the emphatic proximate often imply that the object is within reachable distance, e.g. this very bark right here. The emphatic proximate demonstrative has specific forms for feminine and masculine referents. It can be used to refer to animate as well as to inanimate entities. Examples are given in (48)-(50):

48) \( f\text{t}=\text{n}i\text{w-w}a \, \text{b}a\text{d-da} \, \text{n}in=\text{b}u \)
1PL = grandfather-PL deceased \( \text{this.M=LOC} \)

\( ?t=t-\text{h}a\text{b-h}i\text{w}-ap=\text{wit}=h\text{i} \)
3PL = EVID-go.up-come-PST = REP.EVID = REM.PST

‘(It is said that) Our deceased forefathers came up to this very place’

49) \( j\text{e}-\text{ni}=\text{n}in? \)
lie-ADJVZ = this.F
‘this (female) liar one’

50) \( d\text{e}-\text{t}=\text{t}i\text{g}a \, \text{n}in=m\text{i-h}i\text{w} \)
who-POSS EMPH \( \text{this.M=house-jaguar} \)

‘whose dog is this one right here?’

3.3.4 Numerals and quantifiers

Numerals are built up by compounding noun roots (or adjectivized or nominalized verb roots), plus additional noun morphology such as case marking, number marking, and classifiers, among others. The numerals 5 and above involve a generative system consisting of adding terms for fingers and hands to the basic 1-5 forms.

The Kakua numeral system has native forms to express numerals from 1 to 20. Although Kakua speakers have reported that this numeral system can be extended to count for higher numbers than 20, by adding terms of body parts of other individuals (‘two hands and two feet and one hand from another person’), in actual practice any quantity beyond five is expressed by using Spanish loans.

A list of the Kakua cardinal numbers 1-5 is given in Table 3.10 below. A comprehensive list of all 20 cardinal numbers in Kakua and a detail description of the numeral system is given in Chapter 7.
Table 3.10 Kakua cardinal numbers 1-5.

<table>
<thead>
<tr>
<th>Form</th>
<th>Morpheme gloss</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>bǐk</td>
<td>one</td>
<td>one</td>
</tr>
<tr>
<td>ʧên</td>
<td>friend/partner/companion</td>
<td>two</td>
</tr>
<tr>
<td>ʧênwã</td>
<td>friend-PL.AN</td>
<td></td>
</tr>
<tr>
<td>ʧêne</td>
<td>friend-PL.IN</td>
<td></td>
</tr>
<tr>
<td>bïkpej/kanni</td>
<td>bïk-pej?-kan-ni</td>
<td>three</td>
</tr>
<tr>
<td>ʧênenamîk (inanimates)/</td>
<td>ʧêne-namîk</td>
<td>four</td>
</tr>
<tr>
<td>ʧênewânîmik (animates)</td>
<td>ʧêne-wânîmik</td>
<td></td>
</tr>
<tr>
<td>bïkhîrîbû tekiye</td>
<td>bïk=hî?=bû tekiye</td>
<td>five</td>
</tr>
</tbody>
</table>

In addition to numerals, Kakua has other morphemes that express quantity. These are: tâw ‘sometimes’, niʔat ‘all/every’, lâ ‘times/era’, dawâ ‘many’, and hena? ‘this much/count/measure’.

These quantifier-like terms can act as modifiers within noun phrases, or can occur by themselves as the head of the noun phrase. Examples of these morphemes are given below:

51)  kan = na provisions.  ʔɪ = t-ʔɪn-iŋ = tə = be exist. EVID = grind-PST = INF. EVID = REC.PST = corn = OBJ

   dawâ
   many
   ‘there they grinded a lot of corn’

52)  dawâ = wit = hî

   many = REP.EVID = REM.PST  kâk-wâ  person-PL  hin-iŋ = hî  exist-PST = REM.PST

   kan = na
   there = DECL
   ‘many people were there’

3.3.5 **Adjectives**

Adjectives are cross-linguistically defined as a class of words that modify nouns and that are used for denoting qualities or attributes (c.f., Dixon 2004:1-49, Schachter and Shopen 2007).
In Kakua, most attributive or quality meanings are expressed through descriptive verbs. A small set of words which are not verbs and can be used directly in attributive modification, however, can be identified.

The small set of adjectives in Kakua is formed by a total of four adjectives. Morphologically, these words can take both verb and noun morphology. Syntactically, the adjective words have a fairly free order and the modifier can occur either preceding or following the modified noun.

The adjectives have a likely etymology in verbs, as discussed at the end of this section. The four Kakua adjectives are given in (53) below:

53) hàp 'tall/up'
    hàp 'new'
    bɨdĩ 'big'
    jehēp 'bad'

All other qualities or attributive meanings in the language are expressed by descriptive verbs. When a descriptive verb is used for expressing an attribute or quality, the verb root is marked with the adjectivizer morpheme –ni following the modified noun in juxtaposition.

The class of adjectives is distinct from verbs and nouns. Unlike verbs, adjectives can occur as free morphemes without the need of derivational morphology to function as modifiers of nouns. Unlike nouns, adjectives can take all of the verbal morphology, and may function as heads of verb phrases.

The syntactic position of the four adjective words in Kakua is apparently not fixed, and whereas some speakers prefer an N Adj order, others have no clear preference for either one, accepting both as being just as good. It must be said, however, that allowing for either order to occur is much more common in elicitations than in natural texts, where the modifier tends to follow the modified noun. This might be explained in that the four adjectives in Kakua have an etymological source in verbs, and Kakua is predominantly a verb-final language.

The examples in (54) and (55) below illustrate a case in which the same speaker uses indistinctly both Adj N and N Adj orders in the same narrative text:

54) bɨdĩ kẹh
    big fish
    'big fish'

55) jōaʔ bɨdĩ
    backyard big
    'big backyard'
The adjectives in Kakua can take nominal morphology as in (56) and be the head of noun phrases without having to take any word-class changing morphology as in (57) and (58):

56) měm  hāp = bā = ka ʔinwiʔá
   2SG  up = LOC = ASS relative
   ‘you up there relative!’

57) bidi-daʔ = dĩ? ʔen = nit ma = niw-i
    big-CL:round = OBJ see = SS 2SG = choose-IMP
    ‘look and choose the big one!’

58) beh  kān  mi = t-beh = na = wit = hĩ  hāp-wili
    go  3SG.M  3SG.F = EVID-go = DECL = REP.EVID = REM.PST
    new-CL:FEM
    kēt = hĩʔ
    3PL = COM
    ‘he and the young woman went with them’

When descriptive verbs function as attributive modifiers, they are adjectivized by the adjectivizer suffix –ni.

The following examples in (59) and (60) below illustrate this adjectival function of descriptive verbs. Note also the order of constituents where the predicate remains in final position whereas the adjectivized verb precedes the verb phrase.

59) ʔên-é  hēa  dipi-ni ʔā = him = na = ka
    see-IMPER  sky  be.dark-ADJVZ  3SG = exist = DECL = ASS
    ‘look! the sky is dark’

60) wēm  hodaʔ-na = dĩʔ  bab-māʔ-ni
    1SG  banana-INAN.PL = OBJ be.ripe-to.age-ADJVZ
    wã = hēmʔ-ep = be
    1SG = eat-PST = REC.PST
    ‘I ate the ripe bananas’

This suffix –ni is polysemous. It can also encode agent nominalization when suffixed to other non-descriptive verbs (verbs of actions, states). This suffix is

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4 Although from examples (57) and (58) it seems that the classifier can have a nominalizing function (i.e., acting as derivational morphology), which is a common function of classifiers in many regional languages (see also nominalization via compounding of classifiers to verbs described in chapter 4), these adjectives can also occur as head of a NP without the classifiers, as can be seen in example (4) above.
glossed as ‘ADJVZ’ when functioning as an adjectivizer for descriptive verbs, and as ‘A.NMLZ’ when its function is agent nominalization. Examples of its function as agent nominalizer are given below. A further description of agent nominalization is given in Chapter 5:

61) \(\text{diw-} \text{ni}\)
   carry.on.shoulders-\text{A.NMLZ}
   ‘the carrier’

62) \(\text{kûʔu-} \text{ni}\)
   give.medicine/heal-\text{A.NMLZ}
   ‘doctor/healer’

   Like verbs, all of the members of the adjective classes in Kakua can take the adjectivizer/nominalizer suffix \(-\text{ni}\):

63) \(\text{hâp-} \text{ni}\)
   tall/up-\text{A.NMLZ}
   ‘the tall one’

64) \(\text{hâp-} \text{ni}\)
   new-\text{A.NMLZ}
   ‘newly/young one’

65) \(\text{jehěp-} \text{ni}\)
   bad- \text{A.NMLZ}
   ‘ugly one’

Attributive meanings such as taller vs. tallest in Kakua are expressed by comparative constructions involving the verb \(\text{ʧaʔ}\) ‘be on top’. Examples are given below. Comparative constructions may also be expressed by the juxtaposition of the compared elements. Comparative constructions and their attributive meanings are described in Chapter 13.

5 I have chosen to give different glosses here, even though it might be the case that the suffix \(-\text{ni}\) is actually acting as a nominalizer in both cases. If this was the case, examples like the one in (60) could be interpreted as ‘the ripe one’ (i.e. a noun-noun compound). Likewise, example in (61) \(\text{diw-} \text{ni}\) ‘the carrier’ could be interpreted as ‘(the one who is a) carrier’. It may thus be that the difference between what I am labeling ‘ADJVZ’ versus ‘A.NMLZ’ has to do merely with the modifier vs. head status of the element taking \(-\text{ni}\) (and maybe the active vs. stative status of the verb that is undergoing the derivation), as opposed to an actual dual function of the suffix. Therefore, the difference in glossing does not necessarily reflect a strong distinction in the function of this suffix, but rather, it is used to indicate the type of derivation best reflects the translation.
Types of morphemes and word classes

66) ʧʧ-ʔ-bidī

\textbf{be.on.top}-be.big\hspace{1em}\textbf{manioc.bread}-\text{CL:round}

‘the biggest manioc bread’

67) mā-na?

\textbf{ʧʧ-ʔ-hap = bā = ka}

\text{tree-CL:tree}\hspace{1em} \textbf{be.on.top}-be.tall = \text{EMPH = ASS}\hspace{1em} \text{man = OBJ}

‘the tree is taller than the man’

Finally, noun classifiers, diminutive and augmentative suffixes can also be used as modifiers (see Chapter 5 for detailed discussion):

68) ʔã=da-ʔ-be?

\text{3SG.M = CL:round-AUG}

‘he (the) big one’

69) ʔã=bit

\text{3SG.M = DIM}

‘he (the) tiny one’

Before concluding this section on Kakua adjectives, the following paragraphs discuss the origins of Kakua adjectives.

Synchronically Kakua adjectives behave differently from descriptive verbs, but good hypotheses can be made with regard to the etymological origin of these words. The adjectives \textit{hap} ‘tall/up’, and \textit{hāp} ‘new’ could be derived from the spatial noun \textit{hāb} ‘up river’. In this case, hypothetically, the noun \textit{hāb} ‘up river’ developed tone differentiations as well as the devoicing of the final consonant. However, an argument for a reverse process can also be proposed. In other words, it could also be that the spatial noun \textit{hāb} ‘up river’ has been derived from the adjectives \textit{hap} ‘tall/up’ and/or \textit{hāp} ‘new’. This last argument, however, does not explain why other spatial nouns have no clear resemblances with adjectives.\footnote{Note that in either of these scenarios the semantic link of ‘new’ remains unclear.} I consider these to be less likely scenarios for the development of these adjectives. An alternative scenario follows.

Another possible scenario is that both \textit{hap} and \textit{hāp} derived from the verb \textit{hā} ‘to get up’ plus the past marker of verbs, -\textit{Vp}, resulting in the inflected form \textit{hā-ap} ‘get.up-PST’. This is a more likely scenario, for at least three reasons: First, because it is consistent with the general pattern that adjectival concepts are expressed through descriptive verbs, so that one may expect that the attributive concepts ‘tall, up, new’ have initially been descriptive verbs. Second, because it is consistent with the analysis for the other two Kakua adjectives \textit{bidī} ‘big’ and \textit{jehèp} ‘bad’, which will leave us with one general explanation for the origin of a closed class of adjectives, coming from verbs, instead of several different strategies for obtaining adjectives as

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\textit{bidī} ‘big’ and \textit{jehèp} ‘bad’, which will leave us with one general explanation for the origin of a closed class of adjectives, coming from verbs, instead of several different strategies for obtaining adjectives as
a separate class from verbs and nouns. Finally, adjectives in Kakua can function as verbs, taking all the available verbal morphology, suggesting that adjectives in Kakua have a verbal origin.

The same argument given above to account for the derivation of the adjective words hâp ‘new’, and hap ‘tall/up’, can serve to explain the diachronic development of the adjective word jehěp ‘bad’. It could be argued that jehěp ‘bad’ is a lexicalized form from the verb jěh ‘be.damaged’ plus the general past marker –Vp. jěh-ep ‘be.damaged-PST’. Because of phonological processes, the realization of a rising tone in a bisyllabic morpheme is assigned to the last syllable, and thus, the tone of the verb root jěh ‘be.damaged’ has its realization in the last syllable when it has been lexicalized as a bisyllabic adjective jehěp.

The word jehěp can function as an adjective or as a verb, as shown in (70).

70) kan ?ā=jehěp=be 3SG 3SG =be.bad= REM.PST
‘it was bad’

Perhaps the least etymologically transparent of the four adjectives in Kakua is bɨdɨ ‘big’. However, even when its source is not clear, the fact that it can occur both as a verb and as a free form (adjective), without the need of the adjectivizer marker –ni, can serve as a sign to suspect its verbal origin. I acknowledge, however, that it is cross-linguistically common for adjective to share properties with either nouns or verbs. My argument is based on the large number of descriptive verbs that in Kakua serve to describe properties of nouns.

The examples in (71)-(73) below illustrate the adjective bɨdɨ ‘big’ used as an attributive modifier (with animate and inanimate entities):

71) teluʧa? bɨdɨ ?ā=t-ibuʔ-hip=tagā karkaj big 3PL =EVID-have-DUB =INF.EVID
‘they had a big quiver’

72) kan=na bɨdɨ mɨ̌=wɨt=hĩ there=DECL big house =REP.EVID =REM.PST
‘there was a big house’

73) bâkaʔ bɨdɨ body big
‘fat person/big person’

Like some verbs, the adjective bɨdɨ can also function as an adverb. When functioning as an adverb, bɨdɨ occurs at the beginning of the clause, as in examples (74) and (75) below, and its semantic meaning is that of ‘very much’:
The main features of the closed class of adjectives can be listed as follows:

a) Adjectival concepts in Kakua are generally expressed through descriptive verbs.

b) Attributive modification is expressed by adjectivized verbs, noun compounding or noun classification.

c) The adjectivizer suffix is –ni. It can be attached to (descriptive) verb roots to form adjectives. When attached to other verb roots (other than descriptive verbs), it can also function as agent nominalization.

d) The adjective or adjectivized element has free syntactic order, although normally it follows the modified element, it may also precede it.

e) The four adjectives identified in Kakua are items expressing the notions of 'big', 'tall/up', 'new', and 'bad'. These four forms can be used as free forms (as attributive concepts or modifiers), or as heads of a predicative construction.

f) The four attested adjectives do not take pronominal prefixes.

g) They share a number of features with verbs and some other features with nouns. Unlike nouns, adjectives can take verbal morphology and can be nominalized. And unlike verbs, adjectives can take nominal morphology.

h) Adjectives are synchronically monomorphemic, but some are probably historically derived

3.3.6 Adverbs

Like in the case for quality or attributive modification, modification of verbs and clauses in Kakua is mostly expressed by verbs. However, there is a set of words that are not verbs and that can also serve to modify verbs and clauses. These adverbs are morphosyntactically different from verbs and nouns.

Although most members of this set of words have a clear etymological source in verbs, they can be morphosyntactically distinguished from verbs in that they can occur as free morphemes, whereas verbs must always occur with additional inflectional morphology (see Chapter 8 for discussion of the exceptional cases when verb roots can occur as free morphemes).

Most adverbs can constitute a sentence on their own, like nouns. Unlike nouns, however, some adverbs cannot take case marking. Also, unlike nouns, adverbs can take verbal morphology.

On the basis of their syntactic behavior adverbs can be divided into two sets. A set of adverbs that occurs at the beginning of the clause they modify, and a set of adverbs that occur as particles at the end of the clause that they modify.
Manner meanings in Kakua, such as ‘quickly’, ‘strongly’, ‘well’, are expressed by verbs: $wajkan = na$ ‘be.quick = DECL’, $wep = na$ ‘be.strong = DECL’, $tj = na$ ‘be.good/be.well = DECL’.

Kakua adverbs express meanings typical of time adverbs and adverbs of degree.

A list of these adverb words is given in Table 3.11 below.

<table>
<thead>
<tr>
<th>Form</th>
<th>Meaning</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clause initial adverbs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>titima?</td>
<td>‘and so/ after that/ then’</td>
<td>time</td>
</tr>
<tr>
<td>pani?na</td>
<td>‘because of this/ and so/ this way’</td>
<td>degree</td>
</tr>
<tr>
<td>pânr</td>
<td>‘like this’</td>
<td>degree</td>
</tr>
<tr>
<td>minr</td>
<td>‘again/ once more’</td>
<td>frequency</td>
</tr>
<tr>
<td>?uba?he?ti?</td>
<td>‘but/nonetheless’</td>
<td></td>
</tr>
<tr>
<td>hãrı</td>
<td>‘long ago/ before’</td>
<td>time</td>
</tr>
<tr>
<td>manrı</td>
<td>‘this.much’</td>
<td>degree</td>
</tr>
<tr>
<td>bi</td>
<td>‘now/today/nowdays’</td>
<td>time</td>
</tr>
<tr>
<td>hunhã?ti?</td>
<td>‘(long.ago-before) formerly/aforetime’</td>
<td>time</td>
</tr>
<tr>
<td>puni?</td>
<td>‘meanwhile/while’</td>
<td>time</td>
</tr>
<tr>
<td>ũ?i?</td>
<td>‘meanwhile’</td>
<td>time</td>
</tr>
<tr>
<td>hã?ti?</td>
<td>‘previously’</td>
<td>time</td>
</tr>
<tr>
<td>biti?</td>
<td>‘right.now’</td>
<td>time</td>
</tr>
<tr>
<td>kin</td>
<td>‘never’</td>
<td></td>
</tr>
<tr>
<td>Clause final adverbs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>biká</td>
<td>‘at last’</td>
<td>degree</td>
</tr>
<tr>
<td>tit</td>
<td>‘before’</td>
<td>time</td>
</tr>
<tr>
<td>hı?he?</td>
<td>‘just like this/solely’</td>
<td>certainty (?)</td>
</tr>
</tbody>
</table>

These adverbs can be compounded, as in (76) below:

76) $babá = ŧa$? $ʔr = tâ-beh-cp = be$ $pânr^2$-$miň^2$ $lİke.\ this.-again$

$be.bright = D.S$ 3PL = EVID-go-PST = REC.PST $lİke.\ this.-again$

$hja = bû$ $ʔr = pan-beh = na$

$forest = LOC$ 3PL = enter.another.space-go = DECL

$pânr^2$-$miň^2$ $dēd = bû$ $ʔr = beh-cp = bû$

$like.\ this.-again$ what = LOC 3PL = go-PST = LOC

‘at dawn they went once again into the forest and once again they went aimlessly wondering around’
Additional examples of adverbs in Kakua are given below:

77) *hiʧa*  
feet

*bê?bêʔ*  
just.like.this

*hãʔ-tɭw-him-ip*  
cover-work-exist-PST

*dawâ*  
many

*hja=bû*  
forest = LOC

*bêh = na*  
dedo-paʔ=hiʔ?

*bîʔ*  
3SG

*hja=bû*  
forest = LOC

*bêh = na*  
go = DECL

'Many (of them) went covering just with their feet, when they went from one place to the other in the forest’

78) *nin=bû*  
DEM.this = LOC

*Wacrâ*  
Wacrâ

*ʔã=hɨ*  
PST

*m-at*  
POT

*pînaʔ*  
previously

*bãʔ*  
LOC

*ti*  
PST

*hjâ=bû*  
be/exist = DECL

'Before this Wacrâ existed, where exactly were (you)?’

79) *ʧuh-at*  
bath-NMLZ

*tit*  
before

*miʔ=wāw-jûk=dî?*  
3SG.F.Poss = head-hair = OBJ

'before (they) bathed her, they cut her hair’

80) *bîtêʔ=ka*  
right.now = ASS

*jêm=dî?*  
2PL = OBJ

*mi=ʔb-bîp=na=ka*  
3SG.F = take.out-FUT = DECL = ASS

'she is going to record you right now’

The adverb *bîkâ*, modifies an entire clause. Its meaning is similar to that of English expressions such as ‘alright!’, ‘at last!’, ‘then!’ that occurs at the end of clauses. It serves as an affirmation of the discourse, and it occurs always in clause-final position:

81) *ʔã=t-fêh*  
3SG.M = evid-rest

*bîkâ*  
at.last

'He rested at last!’
Finally, there is a grammatical morpheme that has an adverbial like function, in that, like adverbs, it modifies verbs or entire clauses. Unlike adverbs, however, it is more like a grammatical morpheme, and is here glossed as such. This is the morpheme puʔba which encodes an emphatic meaning similar to the expression ‘right there’ or ‘right that’.

An example of the emphatic adverbial like morpheme is given in (83)-(84) below. This morpheme occurs always clause finally and it serves to emphasize the entire noun phrase.

(83) měm maw=t j-ní jew-háp=diʔ puʔba
2SG 2SG =be.good-ADJ vz sun-up =OBJ EMPH
měm=bit ma=pǐ-tʃāp=nit=hī ʔibí
2SG=also 2SG =HAB-pray.on=INTERR =REM.PST uncle.VOC
‘right then (back in) the day when you were well, did you also make traditional prayers, uncle?’

(84) pi jôaʔ-tak=jūb puʔba
TERM clean.front.yard-middle=INTS EMPH
‘(he came) up until right there in the very middle of the front yard’

The main properties of adverbs in Kakua can be summarized as follows:

a) Adverbs in Kakua are morphosyntactically different from verbs, in that they can occur on their own, without need of additional inflectional morphology.

b) Adverbs modify verbs and clauses, and encode meanings such as time, degree and certainty.

c) Unlike nouns, some adverbs do not take noun morphology such as case marking.

d) Syntactically, adverbs tend to occur at the beginning of clauses.
3.3.7 Particles

Particles form a small but very heterogeneous classes of words. Particles are a group of words that –like most adverbs, adjectives and nouns- can occur as utterances on their own. Unlike adverbs and adjectives, these words do not function as modifiers.

Particles do not take any type of derivational or inflectional morphology. They do not compound together with other elements. Particles are monomorphemic words.

Particles can be used as minimal expressions, responses, or reactions in a discourse. This heterogeneous class of words includes discourse elements like the hesitation particle nép ‘who was it now?’, or discourse tags like bat ‘dude’, hǐʔ ‘and what do you know!’, expressions of astonishment like hǐw ‘no way!’; and interjections like ?agá ‘ouch!’.

A list of these particles is given in Table 3.12 below:

<table>
<thead>
<tr>
<th>Particle</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>ʔajú!</td>
<td>‘careful!’</td>
</tr>
<tr>
<td>ʔagá!</td>
<td>‘auch!’</td>
</tr>
<tr>
<td>hǎwʔ</td>
<td>‘who knows!/no idea!’</td>
</tr>
<tr>
<td>hǎ!</td>
<td>‘shhhhh! listen!’</td>
</tr>
<tr>
<td>hǐʔ</td>
<td>expression to denote tiredness</td>
</tr>
<tr>
<td>hǐw</td>
<td>‘I don’t believe you!’</td>
</tr>
<tr>
<td>bat</td>
<td>‘dude!’</td>
</tr>
<tr>
<td>hōʔ</td>
<td>‘what do you know!’</td>
</tr>
<tr>
<td>nép</td>
<td>‘who was it now?’</td>
</tr>
<tr>
<td>jaʔ</td>
<td>‘OK’</td>
</tr>
<tr>
<td>da</td>
<td>‘there! al right’</td>
</tr>
<tr>
<td>puah!</td>
<td>‘wow!’</td>
</tr>
</tbody>
</table>

Examples illustrating the use of these particles in Kakua are given below:

85) A: dé-beʔ?-ni-daʔ-hǐ bi kā
determinate-grow-ADJZ-CL:round-REM.PST EMPH
‘(the turtle) was chubby (when it was hungry)’

B: hǐw
‘I don’t believe you!’

A: hǐʔ, ʔā = hün = tigā
yes, 3SG.M = exist = EMPH
‘yes!, he was really!’
86) hiwi-wā pâ?-miṅ' = na = wit = hĩ hin-ip
    tapir-PL be.like.this-again = DECL = REP.EVID = REM.PST exist-PST
    puah!
    wow!
    ‘it was like this (big) like a tapir!, wow!’

87) nèp = bit behe = wit = be Daniē
    H.TAG = also go = REP.EVID-REC.PST Daniel
    ‘also this (what was is name now?) this Daniel went?’
Chapter 4

The noun: morphology and structure

4.0 Introduction

This chapter describes the morphology of nouns and the syntactic position of morphemes in the noun word.

Most of Kakua nouns are formed by monosyllabic (at most bisyllabic) roots (c.f., §2.3, Chapter 2, on the syllabic structure of morphemes in Kakua); morphemes with three or more syllables are exceptional and in most cases are lexical borrowings.

Kakua has a set of free and bound noun roots. A free noun root in Kakua can be sufficient as a minimal nominal word; i.e., without need of additional morphology, a bare noun root can function as head of a noun phrase, as an argument of a verb or postposition, and also as a nominal modifier.

Kakua nouns can be specified for number, shape, possession, case, and definiteness.

Nouns in Kakua do not take prefixes, and with the exception of proclitics, all of the noun morphology in Kakua, as is the case for many Amazonian languages (c.f., Aikhenvald 2012: 131), occurs exclusively after the stem. According to Aikhenvald (2012:131), it seems to be a fairly common cross-linguistic tendency that in predominantly sufficing languages, cross-referencing person-marking markers will be the only morphology occurring in a pre-stem position. In the case of Kakua, in which morphology is predominantly post-stem, the number of prefixes is very limited (only two prefixing slots), and the cross-referencing person-marking markers occur as proclitics.

Semantically, the elements belonging to the word class of nouns in Kakua denote animate and inanimate entities, including abstract concepts, substances, names (like proper and place names), natural and ecological phenomena, among others.

This chapter is subdivided as follows: Section §4.1 introduces a description of the two general types of nouns in Kakua: free and bound nouns. A template of the noun in Kakua and its morphological categories, such as case, number, and classification, is described in §4.2. This chapter ends with a description on the different types of nominalization strategies in Kakua in section §4.3.

4.1 Free and bound nouns

Kakua nouns can be divided into two types of nouns; nouns that are obligatorily bound (i.e., noun stems that cannot occur without additional morphology), and nouns that can occur freely (i.e., without need of any further morphology).
Bound noun stems are almost all obligatorily possessed. These include, but are not restricted to, nouns with human referents, like kinship terms, but also nouns denoting body parts, parts of a bigger entity, hunting and personal instruments. Also included in this group of obligatorily bound noun stems are a large number of nouns referring to inanimate entities which must be specified by a shape classifier suffix. The nature of these nouns is further described in Chapter 5 (on compounding, classification, and possession of nouns in Kakua), which also includes a discussion on the status of classifiers. Bound nouns thus require a possessive pro-form preceding the obligatorily bound noun (see Chapter 5 for a description of possession in Kakua, obligatoriness and the alienable/inalienable distinctions).

Kinship terms in Kakua, for example, are obligatorily possessed. Furthermore, they are possessed via a strategy of inalienable possession in which they take a proclitic pronoun, and not possessive pronouns (see Section §7.1 in Chapter 7 for a description of pronominal forms in Kakua):

1) a. wã=ip b. ?i=hî c. mi=mî
   1SG = father  3PL = son.in.law  3SG.f = daughter
   ‘my father’   ‘their son in law’  ‘her daughter’

   father   son.in.law   daughter

Nouns that can occur as free forms without need of additional morphology include proper names, nouns referring to animals, vocative forms of kinship terms, elements referring to parts of the natural environment (e.g., dirt, star, sun, dawn), and some objects that do not need to be specified by shape classifiers.

3) a. bib’ b. ?îm c. ?etá
   ‘louse’  ‘lake’   ‘grandmother.VOC’

4.2 Noun template

Nominal morphology in Kakua is by far less complex than verbal morphology. Kakua nouns never take prefixes. With the exception of proclitics (including possessive proclitics which obligatorily precede bound nouns), the morphology of nouns in Kakua is exclusively post-stem, and this includes suffixes and enclitics.

Free noun roots can stand on their own as the only obligatory element to form a noun word in Kakua, unlike verbs (see §3.1.1 and Chapter 8 for verb morphology). Free nouns roots can also function as arguments of a predicate or as an attributive modifier of another noun.

Of all of Kakua’s word classes, only nouns can be specified for possession. Nominal negation is expressed through existential negation constructions (see Chapter 12, §12.7 for a description on existential negation constructions).
The positions of morphemes in nouns is summarized in Table 4.1. Only the root (in boldface) is obligatory in forming a noun word in Kakua, except in the case of bound nouns (see §4.1). While free nouns will not require more than a noun root, obligatorily bound nouns require additional nominal morphology, these being proclitics, or classifiers. Some nouns can have more than one root (see §5.1 in Chapter 5 on noun compounding and classifiers). The noun word (as a grammatical word) ends at position 5. Nouns (as phonological words) may include clitics (positions 6-10).

Table 4.1 Template of the noun morphology

<table>
<thead>
<tr>
<th>Position within the Noun word</th>
<th>Elements</th>
<th>Description</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Proclitics</td>
<td>Proclitic pronouns (for inalienable possession), and possessive proclitics (alienable and inherent possession. See Chapter 5 for a description of alienable, inherent, and inalienable possession).</td>
<td>wã = ‘1SG’ ma = ‘2SG’ mìʔ = ‘2SG.POSS’ mìʔ = ‘3SG.POSS’ mìʔ = ‘3SG.F.POSS’ mìʔ = ‘3PL’ mìʔ = ‘2PL’ mìʔ = ‘3PL’</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>wãʔ = ‘1SG.POSS’ mìʔ = ‘2SG.POSS’ mìʔ = ‘3SG.M.POSS’ mìʔ = ‘3SG.M.POSS’ mìʔ = ‘3PL.POSS’ mìʔ = ‘2PL.POSS’ mìʔ = ‘3PL.POSS’</td>
</tr>
</tbody>
</table>
Table 4.1 Template of the noun morphology (continued)

<table>
<thead>
<tr>
<th>Position within the Noun word</th>
<th>Elements</th>
<th>Description</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Noun root</td>
<td>verb stem nominalizer</td>
<td>Derivational nominalizer or agent nominalization suffix.</td>
</tr>
<tr>
<td>3</td>
<td>Number</td>
<td>Plural</td>
<td>-wā ‘PL.AN’</td>
</tr>
<tr>
<td>4</td>
<td>Possession</td>
<td>Possession suffix</td>
<td>-ǐ ‘POSS’</td>
</tr>
<tr>
<td>5</td>
<td>Augmentative</td>
<td>Diminutive</td>
<td>-beʔ ‘AUG’</td>
</tr>
<tr>
<td>6</td>
<td>Case</td>
<td>Object Locative Comitative/instrument</td>
<td>=diʔ ‘OBJ’</td>
</tr>
<tr>
<td>7</td>
<td>Mood</td>
<td>Declarative Interrogative</td>
<td>=na ‘DECL’</td>
</tr>
<tr>
<td>8</td>
<td>Associatives</td>
<td>Associatives</td>
<td>=bū ‘ASSOC.SG’</td>
</tr>
<tr>
<td>9</td>
<td>Mood and evidentiality</td>
<td>Assertion Evidentiality</td>
<td>=ka ‘ASS’</td>
</tr>
<tr>
<td>10</td>
<td>Tense, emphasis, intensifier</td>
<td>Remote past Recent past Emphasis Intensifier</td>
<td>=hi ‘REM.PST’</td>
</tr>
</tbody>
</table>

In the remainder of this section, examples are given to illustrate each of the slots shown in Table 4.1 Template of the noun morphology above.

**Position 1: Proclitic pronouns**

Position 1 of the morphosyntactic template of Kakua nouns can be filled by proclitic pronouns. These occur only when indicating possession (whether alienable or inalienable). The form of the pronoun, possessive pronoun or plain proclitic pronoun, depends on the distinction between alienable and inalienable possession (alienable and inalienable possession is described in §5.3 of Chapter 5; the pronominal paradigm in Kakua is given in Chapter 7). Examples of inalienable nouns are given in (4)-(5) below. The proclitics are highlighted in boldface.

4) ḳăn ʔɛ=baʃ
3SG.M 3PL = brother.in.law
‘he, their brother in law’
5) \( w\tilde{a}=m\tilde{i} \)

\( 1SG=\text{house} \)

‘my house’

**Position 2: Roots and nominalizers**

Besides noun roots, this position can be filled by verb stems combined with suffixes deriving new noun stems from verbs. The derivational suffixes in this position are then the nominalizer \(-\text{at} \) ‘NMLZ’, and agent nominalizer suffix \(-\text{ni} \) ‘A.NMLZ’.

6) \( \tilde{t}=\tilde{h}\tilde{e}m\tilde{t}\text{-at} \)

\( 3PL=\text{eat-NMLZ} \)

‘their food’

7) \( k\tilde{u}\tilde{u}-\text{ni} \)

\( \text{give.medicine/heal-A.NMLZ} \)

‘doctor/healer’

A detailed discussion of nominalization strategies in Kakua is given below in §4.3.

**Position 3: Number marking**

Kakua distinguishes between singular and non-singular. Singular is unmarked. Non-singular number is marked by means of three different morphemes. The choice of these morphemes depends on the semantics of the noun. Some nouns, such as \( m\tilde{a} \) ‘water’, or \( b\tilde{e}p \) ‘mud’ don’t take number marking, suggesting that they form a set of mass nouns. However, the mass-count noun distinction in Kakua has not been studied further so far.

The plural suffix \(-\text{na} \) serves to encode plural number for most inanimate nouns, as illustrated in (8)-(9):

8) \( m\tilde{i}-\text{na} \)

\( \text{house-PL} \)

‘houses’

9) \( m\tilde{i}=n\tilde{ib}-\text{at-na} \)

\( 3SG.F.POSS=\text{say-NMLZ-PL} \)

‘her sayings’

The plural suffix \(-w\tilde{a} \) encodes plural number for most animate nouns, as illustrated in (10)-(11) below:
10) kāk-wā
    person-PL
    ‘people’

11) jū-wā
    armadillo-PL
    ‘armadillos’

A small set of nouns occur with the plural suffix -nit, as illustrated in (12):

12) nom-nit
    bloodsucker.leech-PL
    ‘leeches’

    The -nit suffix, is used to mark plurality for a small set of nouns that are
    conceived as belonging to a group or as moving in groups or bands. Note that this is
    not necessarily a group of smaller animals like leeches or mosquitoes, but also
    includes larger animals such as monkeys (though never human beings, or large
    animals like tapirs, or jaguars), as in (13) below:

13) nakni vs. nak-nit
    ‘monkey (generic)’ vs. ‘monkeys’

Position 4: Possessive suffix -ǐʔ

This position is filled by the possessive suffix -ǐʔ. Possession of nouns in
Kakua is marked on the dependent element of the possessive construction, i.e. the
possessive suffix is attached to the possessor.

14) hun=hĩ
    ʔā=pī-pē-hūj-up=hĩ
    kān
    here = REM.PST 3SG.M = HAB-finish-listen-PST = REM.PST 3SG.M

    jū-ǐʔ
    dō=nā
    armadillo-POSS news = DECL
    ‘and here ended the story of the armadillo’

15) tʃamu-ǐʔ
    mī=bū
    Samu-POSS house = LOC
    ‘(we were) at Samu’s house’

    Possession is not marked twice. Thus, if a proclitic pronoun precedes the
    construction the possessive suffix -ǐʔ is not used. This is shown in (16) below
    (compare to example (15) above):
16) a. *tsamu→tʔ \( \hat{a}i^\prime = m\-
\)ʔ = bů
Samu-POS S 3SG.M.POSS = house-POS S = LOC
‘(we were) at Samu’s house’

The nature of possession in Kakua and its grammatical requirements is further
described in Chapter 5.

Position 5: Diminutive/augmentative

This position is optionally filled by the diminutive suffix -\( \text{bit} \) ‘\( \text{DIM} \)’ as in (17)-(20), or the augmentative suffix -\( \text{be} \) ?‘\( \text{AUG} \)’, as illustrated in examples (21)-(24)
below:

17) \( \text{dip→bit} \)
firefly-\( \text{DIM} \)
‘little firefly’

18) \( \text{bāb’y→at→bit} \)
\( wā = hā\-\text{ap} = be \)
drink-\( \text{NMLZ} \)-\( \text{DIM} \) 1SG = do-PST = REC.PST
‘I made a bit of (a little) manioc beer’

19) \( wā = \text{nim→bit} \)
1SG = daughter-\( \text{DIM} \)
‘my little daughter’

20) \( mîʔ = \text{hēm’y→at→bit} \)
\( tōj→\text{hidi→bit} \)
3SG.F.POSS = eat-\( \text{NMLZ} \)-\( \text{DIM} \) manioc.bread-CL:round-\( \text{DIM} \)
‘her food, a little manioc bread’

21) \( \text{bāb→ni→be}? \)
be.white-\( \text{ADJVZ} \)-\( \text{AUG} \)
‘the big white one’

22) \( hīj→ni→be}? \)
\( \text{cry-NMLZ} \)-\( \text{AUG} \)
‘the big cryer’

23) \( \hat{a}j = \text{wam→da→be}? \)
1SG.POSS = clay.pot-CL:round-\( \text{AUG} \)
‘His big pot’

24) \( māj→be}? \)
anaconda-\( \text{AUG} \)
‘big anaconda’
Up to here are the positions filled by suffixes that are exclusively used on nouns. Positions 6 onwards are filled by enclitics that are not exclusive to the noun word, and can be added to other parts of speech. These enclitics, which are not part of the noun grammatical word, are presented below since they represent a part of the phonological word for nouns. They are presented here to show the order in which each of these enclitics attach to the nouns.

Position 6: Case markers

Case markers in Kakua are enclitics that indicate object case, locative case, and comitative/instrumental case. Case marking and grammatical relations are described in Chapter 6. The identity of case markers as clitics is discussed in Chapter 3, section §3.1.2. Examples of case markers in the noun phrase are given below:

25) kán hiw-wā = diʔ pin = na
3SG.M jaguar-PL = OBJ chase.away = DECL
‘he chased away the jaguars’

26) wā = ?ên = na = be wēm mēm = diʔ bikā
1SG = see = DECL = REC.PST 1SG 2SG = OBJ already
‘I’ve seen you already’

27) nin = diʔ = ka pa mēm = diʔ tīʔ-flat-hūj-up
here = OBJ = ASS dad 2SG = OBJ be.first-take.out-know-PST
‘Dad, you have been asked first of this’

28) kēt hja = bū ?ī = hiw-īp = wit = ĥī
3PL forest = LOC 3PL come-PST = REP.EVID = REM.PST
‘They came from the forest’

29) Mitū = bū flit = beh-ep = ĥī
Mitū = LOC 1PL = go-PST = REM.PST
‘We left to Mitū’

30) wēʔ = ĥū tūd-jak ma = jūʔ-ú
basket = COM broom.away-slash 2SG = toss.away-IMP
‘sweep away and toss away with the basket’

Position 7: Mood

The first enclitic that can attach immediately after the noun word is a mood marker, which can attach to non-verbal predicates. This position is filled by sentential

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1 See Chapter 3, section §3.1.2 for a description of the placement of clitics and constituency.
mood markers, which can either be the declarative enclitic =na ‘DECL’ or the interrogative enclitic =nit ‘INTER’. Kakua declarative marker =na is by far the most frequent marker found in Kakua texts. Examples in (31)-(33) below illustrate mood markers in the noun construction:

31)  kán = na ʔãj ʔ = na
  3SG.M = DECL 3SG.M.POSS = house-PL-AUG = DECL
  ‘ Those are his big houses’

32)  jāb-wā-wil-diʔ? = nit nín’
  ibacaba-PL-CL:female-CL:round = INTERR PROX.DEM.F
  ‘ is this the child girl of the ibacabas?’

A dubitative marker can also occupy this position. This is exemplified in (33) below:

33)  tej’fùa = hin = tagā
  fingernail = DUB = INF.EVID
  ‘ perhaps the fingernails’

A description of mood and the different mood markers (illocution and modality) in Kakua is found in Chapter 10.

Position 8: Associatives

Associative enclitics encode a type of possessive relation, in which a noun with an animate referent is considered to belong to a certain location or place. This type of possessive relation is also presented in Chapter 5 (§5.3.3).

The associative markers have a singular form = bû ‘ASSOC.SG’, and a plural counterpart = mûn ‘ASSOC.PL’. Examples (34)-(35) illustrate both these associative enclitics:

\[\text{Note that in example (32), the classifier follows the number suffix. Classifiers in Kakua behave as a subclass of nouns. Though the transcriptions might raise doubt regarding the atypical ordering of the classifier (as a suffix) following a number suffix, morphemes glossed as classifiers here should be understood as compounded nouns, where additional morphology may intervene between the two compounded nouns (N1-N2) which together form one phonological word. A definition of classifiers in Kakua is given in Chapter 5.}\]
Position 9: Mood and evidentiality

Following the mood enclitics from position 8, either the assertion mood marker =ka (as in (36) and (37)), or an enclitic encoding evidentiality can occur. These evidentiality enclitics are the reported evidential =wit ‘REP.EVID’ (as in (38)-(39)), or the inferred evidential =ta ~ =taga ‘INF.EVID’ (as in (40)-(41) below). See Chapter 10, section §10.5.3 and §10.6, for a description of the assertion and evidentiality markers, respectively.

The enclitics filling position 9 are mutually exclusive, but co-occur with those occurring in position 8.

36) ṡʔʔ = ṣin = ka kān tōjdaʔ-wā-wili
1PL.POSS = mother = ASS 3SG.F clan.name-PL-CL:fem
‘our mother is woman of the tōjdaʔwā clan’

37) hunhãʔ = tiʔ ʔēw-at mēm newē = ka mēm = diʔ
long.ago = INTS sing-NMLZ 2SG man = ASS 2SG = OBJ
wā = ḏyapa-bip
1SG = pass-FUT
‘I am going to pass to you the ancient songs because you are a man’

38) nep píʔ = wit = hi dečē píʔ
hesitation.TAG liana = REP.EVID = REM.PST HOW liana
ʔʔ = pī-nih dečē
3PL = HAB-say WHAT
‘Hmm, how was it that they always say (called) this liana?’

---

3 tōjdaʔwā is a clan name which translates roughly into English ‘big rotten manioc’.
The noun: morphology and structure

39) *ket* = *wɨt* = *be*  
   *waw-hiː* = *nɨt*  
   3PL = REP.EVID = REC.PST  
   be.first-arrive = S.S  
   'they came first (it is said)'

40) *tef* *tʃa-ɨ* = *tagə*  
   fingernail-DUB = EVID  
   'perhaps the fingernails’

41) *ʔĩ* = *mā* = *hi* = *ta* = *hĩ*  
   3PL = chief = DUB = EVID = REM.PST  
   'could that have been their chief?'

A further description of mood and evidentiality is given in Chapter 10.

Position 10: Tense, emphasis and intensifiers

Following evidentiality and assertion mood markers, enclitics encoding tense, emphasis or intensifiers enclitics can occur.

Some of Kakua’s tense markers, which are typically verbal morphology, can also be encliticized to nouns. Tense enclitics are obligatory whenever a reported evidential marker is present (see examples (38) and (39) above). The tense enclitics occurring in this position are the remote past marker = *hĩ* 'REM.PST' and the recent past marker = *be* 'REC.PST'.

42) *wã* = *ʔip* = *hĩ*  
   1SG = dad = REM.PST  
   'he was my dad’

43) *kān* = *wɨt* = *hĩ*  
   kān  
   3SG.M = REP.EVID = REM.PST  
   3SG.M = take.out = DECL  
   'he (it is said) took it out’

44) *mi-beh* = *ta* = *be*  
   3SG.F-go = EVID = REC.PST  
   'she might have just left’

Example (45) below illustrates the co-occurrence of intensifier and tense enclitics in a nominalized verb:

45) *kan*  
   *ʔĩ* = *ʔǐ* - *hįbi-at* = *ti* = *hĨ*  
   PROX.DEM  
   3PL = be.first-arrive-NMLZ = INTS = REM.PST  
   'their first ancient arrival there’
4.3 Nominalization strategies in Kakua

This section presents the different strategies used in Kakua to derive nouns from other parts of speech.

Kakua employs four strategies for nominalization, as discussed in the following. Section §4.3.1 presents the most general and productive nominalization strategy in Kakua, which consist of deriving nouns from verb stems by attaching the suffix -at (what I call the “V-at nominalization”). Section §4.3.2 describes the also productive nominalization of verb stem by attaching the suffix -ni. Finally, sections §4.3.3 and §4.3.4 present the less frequent, and apparently less productive, types of nominalizations in Kakua. §4.3.3 describes the process of deriving nouns by suffixing a noun classifier to a verb stem. §4.3.4 describes the few cases, and non-productive results of some V-V compounding that forms lexical nouns.

4.3.1 The $v(stem)$-at nominalization

Deriving nouns from verb stems is generally done in Kakua by attaching the nominalizer suffix -at to a verb stem (verb-at). This nominalizer suffix is polysemous, and its different nominalization meanings are: object nominalization, instrument nominalization, and locative nominalization, which can be characterized, following Comrie & Thompson (2007:338-342), as:

a) **Objective nominalization**: nouns designating the result or the typical or ‘cognate’ object of an action.

b) **Instrumental nominalization**: ‘an instrument for VERBing’.

c) **Locative nominalization**: ‘a place where VERB happens’.

a) **Objective nominalizations** in Kakua are illustrated in (46)-(48) below:

46) $\text{tfew} - \text{at}$
   \text{‘to cough’ VERB}

47) $\text{pàʔ -at}$
   \text{‘have fever’ VERB}

48) $\text{tʃāk -at}$
   \text{‘to bite’ VERB}

b) **Instrumental nominalizations** in Kakua are illustrated in (49)-(50) below:

49) $\text{tfid -at}$
   \text{‘to sit’ VERB}

4 Note that this example can also be interpreted as a locative nominalization.
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50) pêwʔ  ‘to hammer’ VERB
pêwʔ-at  ‘hammer’ NOUN (for the purpose of hammering)

c) A locative nominalization in Kakua is illustrated in (51):

51) kâk-tʃʔ-pâʔ-at
people-make/do-float-NMLZ
‘the place where people are born’

Once a verb has been nominalized, it can take prototypical noun morphology such as number marking as in (52)-(53):

52) ʔĩ=hěmʔ-at-na
3PL=eat-NMLZ-PL
‘their foods’

53) ʧɨ̃̂-at-pâʔ-aʔ-na
sit-NMLZ-CL:cover-PL
‘chairs’

It can also take case markers, as in (54)-(55) where the nominalized verb stems (v-at) are marked with the object case clitic = diʔ. Note that in example (54) the nominalized verb is part of a compound. Note also that the nominalization jâp-at (pass-NMLZ) ‘tip’ is not semantically transparent.

54) patiera=na   hɨjbi=na  jěgeʔ-waj-at=diʔ
Puerto.Yeras=DECL arrive.there=DECL clothes-pull-NMLZ=OBJ

buʔě=na
learn=DECL
‘(we) arrived in Puerto Yeras to learn clothes sewing’

55) dîk-bud-jũʔ=buh   ʔăf=pîh   jâp-at=diʔ
break-cut-toss=DIR 3SG.POSS=tail pass-NMLZ=OBJ

‘(I) broke the tip of his tail’

4.3.2 The v(stem)-ni nominalization: agentive nominalization

Agentive nominalization is achieved by adding the suffix -ni to a verb stem. The resulting noun refers to an (animate) entity that can be characterized as a frequent doer of an action, i.e., ‘one who VERBS’.

Note that the suffix -ni has a number of other functions. Besides deriving agentive nouns from verbs, it can also derive adjectives from descriptive verbs, as illustrated further below. Examples (56)-(59) below illustrate the derivation of agentive nouns from verbs in Kakua:
A Grammar of Kakua

56) hîguʔ- ‘to appear/ reveal/ show up’
    hîguʔ-ni ‘ghost’

57) kûʔ- ‘give medicine’
    kûʔ-ni ‘doctor’ (compare with ‘medicine’ below)
    kûʔ-at ‘medicine’

58) ŋw- ‘sleep’
    ŋw-ni ‘sleeper’ (one who sleeps frequently)

59) keh-mâw-ni ‘fisher’
    fish-kill-A.NMLZ

As mentioned above, when the suffix -ni attaches to a descriptive verb, it derives adjectives (and is glossed as ADJVZ), as illustrated in (60) below (a description of adjectives and qualitative meanings in Kakua is given in Chapter 3 and further illustrated in Chapter 8):

60) měm ma=t ɨj-ni j ēwháp=díʔ
    2SG 2SG =be.good-ADJVZ day=OBJ
    ‘the day you are well (good)’

4.3.3 The v(stem)-classifier nominalization: instrument nominalization (and others)

Another way of forming instrument nominalizations in Kakua is by attaching a noun classifier to a verb stem. This strategy emphasizes the shape of the referent of the derived noun, often encoding a meaning of ‘an instrument for VERBING’.

Examples (61)-(62) illustrate the verb-classifier nominalization strategy in Kakua:

61) hâh ‘slide.on.water’
    hâh-tʃû ‘boat’ (lit. the cover thing for sliding on water)
    slide.on.water-CL:cover

62) tʃâk ‘bite’
    tʃâk-daʔ ‘axe’ (lit. the round thing for biting)
    bite-CL:round

While classifiers can act as nominalizers on their own, attaching a classifier is far more common with verb stems that have already been nominalized with the nominalizer suffix -at, as illustrated in examples (63)-(67) below:
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63) têw-at-daʔ
   play-NMLZ-CL:round
   ‘ball’ (lit. round one for playing)

64) hêmʔ-l-at-daʔ
   eat-NMLZ-CL:round
   ‘fruit’ (lit. round one for eating)

65) hi-at-kit
   light up-NMLZ-CL:log
   ‘lantern’

66) a. dâk-at-dubʔ
   write-NMLZ-CL:pointed
   ‘pencil’

b. dâk-at-tulí
   write-NMLZ-CL:layers
   ‘book’

It is important to note that classifiers in Kakua are almost exclusively used with nouns or verbs that are nominalized (through the nominalization process of adding the nominalizer suffix -at or the agent nominalizer -ni). Exceptions to this were shown in examples (61)-(62) above (which do not require the nominalizer suffix -at). A case related to this is given in example (67), where a noun is derived from a verb by the addition of nìw ‘leaf’, which is a noun in Kakua, but resembles classifiers in its semantics as well as its use as nominalizer in this example.

67) a. dâdaʔ-nìw
   to.reflect-leaf
   ‘photo’

b. dâdaʔ-nìw ʔibʔ-l-at-daʔ
   to.reflect-leaf  take.out-NMLZ-CL:round
   ‘photo camera’

It would be also possible to analyze nìw ‘leaf’ in the example above as a classifier instead of as a noun. This is consistent with other languages of the area, where ‘leaf’ is commonly expressed with a classifier, and has developed extended meanings of, e.g., ‘paper’, ‘book’. In Kakua, ‘leaf’ has extended also to mean ‘paper’, though usually the Spanish borrowing papelaʔ is used.

Analyzing ‘leaf’ as a noun contrasts with v-classifier type of nominalization (without additional nominalizing morphology) that has been described as a typical nominalization strategy in many Eastern Tukanoan languages (neighboring groups of Kakua), like the following examples from Wanano (68) and Desano (69):
A Grammar of Kakua

Wanano: (Stenzel 2004):

68) *hoa-du*

write-*CL*:cylindrical/straight

‘a pen’

Desano: (Silva 2012):

69) *baya-wi*

dance-*CL*:house

‘a house of dance’

4.3.4 The v-v nominalization

Finally, the least productive type of nominalization in Kakua is v-v verb compounding. Being non-productive, these units are presumably perceived as fixed units by speakers, more like a lexical nouns, rather than a combination of verbs, also because the resulting meaning is often not transparently related to the meaning of the contained verb stems. An example of this type of lexical nouns from v-v compounding is given in (70) below, and only a few more of these are found throughout the corpus of Kakua grammar.5

70) *kâmaʔ-ʔǎb*

be.cold-go.up

‘shadow’

---

5 Another form that speakers also indicated as an alternate meaning for shadow is *dïdaʔ-ati* to.reflect-NMLZ. However, most accepted the one in (70) as a more accurate translation of shadow.
4.3.5 Summary of nominalization strategies

To summarize the four types of nominalization strategies in Kakua, Table 4.2 below provides a list of the characteristics of each of the nominalization forms illustrated in §4.3.1-§4.3.4 above in this section.

Table 4.2. Summary of the four Kakua nominalizing strategies:

<table>
<thead>
<tr>
<th>Form</th>
<th>Type of nominalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>v-at</td>
<td>Default productive strategy</td>
</tr>
<tr>
<td></td>
<td>- object nominalization</td>
</tr>
<tr>
<td></td>
<td>- instrument nominalization</td>
</tr>
<tr>
<td></td>
<td>- locative nominalization</td>
</tr>
<tr>
<td>v-nil</td>
<td>- agentive nominalization</td>
</tr>
<tr>
<td>v-classifier</td>
<td>- instrument nominalization</td>
</tr>
<tr>
<td></td>
<td>- not very frequent and not very productive (61), (62).</td>
</tr>
<tr>
<td>v-v compounding</td>
<td>- presumably learnt as lexical units by speakers</td>
</tr>
<tr>
<td></td>
<td>- the least productive of the nominalization strategies.</td>
</tr>
</tbody>
</table>
Chapter 5  
Noun compounding, noun classification, and possession

5.0 Introduction  
This chapter describes the different strategies of forming complex noun words in Kakua, combining different nominal elements such as noun roots, (possessive) pronouns, and classifiers. The combination of nominal elements in Kakua can serve to express different semantic relationships between the combined elements, such as classification or possession, and are often lexicalized to some extent.

One type of combination of nominal elements in Kakua is that of noun root compounding, which may express different types of relations such as attributive, meronymic and property relations, among others. This type of combination is described in §5.1 on noun compounding. Some nouns in Kakua are specified for the shape, texture or gender of the entity denoted by the combination of a noun with one or more classifiers. Noun classification is described in §5.2. Finally, section §5.3 describes possessive constructions in Kakua and the semantic (and morphosyntactic) differences between alienable and inalienable possession.

5.1 Noun compounding  
Noun compounding in Kakua is a productive strategy of juxtaposing nominal elements in an N1-N2 construction, in which the rightmost element functions as the head. The compounded nouns form one phonological word. If additional morphology is needed (e.g., number marking, case marking), these are preferably attached to the edges of the compounded elements, rather than in between N1-N2.

Semantically, noun compounding can express possessive relationships, meronymic (part-whole) relations, property-entity relations, or attributive relations between the associated elements. Additionally, some compounds appear to be lexicalized and are presumably learnt as units by speakers.

In constructions expressing possessor-possessed relationships, the N1 can be considered as the possessor of N2, as in (1). More generally, the elements forming these type of compounds are associated to each other in such a way that an element (N2) can be interpreted as belonging to the other element in the construction (N1) (example (2)): 
1) *hāgap-wā*
   spider-web
   ‘spider web’

2) *mī-hīw*
   house-jaguar
   ‘dog’

In compounds expressing parts of larger entities (part-whole relations), the element in the N2 position expresses the part of the whole expressed by the N1 element of the compound.

3) *wahfu-nīw*
   ibapichuna-leaf
   ‘leaf of ibapichuna tree’ *Dacryodes belemensis sp.*

Noun compounds may involve semantic non-transparency to different degrees and metaphorical extensions of the meanings of N1 or N2. Examples are given in (4)-(9) below. Note that examples (8) and (9) involve the compounding of a verb and a noun. Chapter 4 describes the V-N compound as a nominalization strategy in Kakua:

4) *kāk-hāʔ*
   person-mouth
   ‘tomb’

5) *ʔīn-wīʔ*
   mother-son
   ‘relative’

6) *tēf-tib*
   hand-seed
   ‘finger’

7) *tak-dep*
   back-flesh
   ‘neck’

8) *wāja-man’*
   pull-side
   ‘left side’
Based on their semantics, compounds thus include a variety of types, including flexible productively formed compounds (as illustrated in examples in (1)-(3) above), on the one hand, and less variable, or lexicalized compounds (as those shown in (4)-(9)).

The set of lexicalized compounds will presumably be learnt as units by speakers, and as opposed to the productive set of compounds, since they are fixed combinations of elements with an unpredictable meaning.

5.2 Noun classification and classifiers

5.2.1 Amazonian nominal classification systems

Noun classes and classifiers are recognized as two separate phenomena in the typology of nominal classification systems. Noun class systems are characterized as systems with a small set of typically bound morphemes that are used for agreement marking on various elements in a clause (Dixon 1986; Grinevald [Craig] 1986, 2000). Classifiers, on the other hand, are (usually free) forms that are not used as agreement markers and that display a large set of members (cf. Allan 1977; Senft 2000, 2007; Croft 1994).

Grinevald & Seifart (2004, see also Seifart & Payne 2007, Seifart 2007, Seifart 2010a) argue that a strict division between noun classes and classifier systems makes it difficult to account for the properties of nominal classification systems in Amazonian languages.

Instead, Grinevald & Seifart (2004) suggest that both defining properties formerly given to the two separate systems (noun class vs. classifiers) converge in one and the same system in some Amazonian languages. Seifart & Payne (2007:385) suggest that possibly these nominal classification systems developed via grammaticalization from nouns into both classifiers and agreement markers, given that these systems display both agreement and boundedness.

Nominal classification in Kakua shares characteristics of Amazonian systems identified by Seifart & Payne (2007) as typical for Northwest Amazonia, namely properties typical of a noun class system (bound suffixes, some marginal anaphoric/agreement functions), as well as properties typical of a classifier system (large set of forms with derivational functions specifying shape, texture or gender). For the sake of a consistent terminology, though recognizing that the classification of nouns in Kakua converge defining properties of noun classes and classifiers, in this chapter I refer to the nominal classification system in Kakua as “classifiers” and gloss them throughout as ‘CL’.

The following sections provide a definition of classifiers in Kakua and the set of thus identified classifiers (§5.2.2), a discussion of the derivational use of classifiers...
and similarities between classifier constructions and noun compounding (§5.2.3), and the anaphoric use of classifiers (§5.2.4.)

5.2.2 Kakua classifiers as a subclass of nouns

Morphosyntactically, classifiers in Kakua are a subclass of nouns. Like nouns, they can often stand on their own (see for example (11) below). However, they are identified here as a separate subset of nouns because, unlike regular nouns, they have particular functions, semantic profiles, and forms that sets them apart from the rest of nouns. These are listed below:

i) Functions: the subclass of nouns identified as classifiers, has two main functions:
   a) Derivation (§5.2.4)
   b) Anaphoric reference (§5.2.5)

ii) Semantic profile: semantically, this subclass of nouns has a distinctive profile, which can be divided into three groups: gender specification (§5.2.6), shape (§5.2.7), and texture (§5.2.8).

iii) Form: often these classifier nouns have forms that are shorter than lexical nouns, or seem to be a reduced form of a noun or verb. In addition, unlike the rest of the majority of nouns, some of the classifiers appear to be toneless. When not bound, the set of noun classifiers can function either for anaphoric reference to an NP or as a modifier of an NP.

Note that in combination with other nouns, classifiers are represented as bound forms in the transcriptions. They are referred to as “suffixed” elements whenever they occur attached to a preceding noun. The reason to identify them as “attached” elements, rather than juxtaposed nouns, is that when classifiers occur attached to a preceding noun, they form one single phonological word with that noun. Note that a classifier can also attach to a complex noun stem, after, e.g. plural suffixes, and not directly to the noun root.

Another motivation to call this subclass of nouns classifiers is because of their typical use and semantics, which are overall very similar to classifier systems described for surrounding languages in the Vaupés area and beyond.

It is difficult to draw a line between constructions involving classifiers attached to nouns versus compounds consisting of two nouns. This point can be particularly well illustrated with terms referring to parts of plants, where there is not

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1 Phonetically, the forms which appear to be toneless, adapt to the melody of the morpheme to which they attach. For example, if they are attached to a morpheme with a falling tone, then the classifier will be pronounced with a low tone by copying the last portion of the falling tone contour from the preceding morpheme. When no tone precedes it (e.g., when attached to other toneless noun morphology like plural marking, or when standing on their own), these toneless classifiers are pronounced with a low tone.
Noun compounding, noun classification and possession

a clear distinction between analyzing this type of construction as N-classifier constructions or as N-N compounding. The analysis can go either way. This is illustrated in the following examples, where what is glossed as classifiers may as well be analyzed as nouns in compounds:

10) a. mâ-ndt ‘root’ (tree-CL:root)
    b. mi-na\-
d1 ‘peach-palm fruit’ (tree-CL:tree-CL:round)
    c. wi\-
d2-kaw ‘stalk of patabá palmtree’ (patabá.tree-stalk)
    d. dawa-n\-
d3-na ‘leaves of rubber tree’ (rubber.tree-leaf-PL)
    e. mâ-ndh ‘base of tree’ (tree-base.of.tree)
    f. mâ-kaw ‘stalk’ (tree-stalk)
    g. mâ-kaw ‘branch’ (tree-branch)

When classifiers are used anaphorically, they also function morphosyntactically like nouns, and take e.g. case markers or number marking (showing again that they are morphosyntactically a subclass of nouns). This is illustrated in (11) below, where the referent of the noun ?i\-
d4-na blowgun-CL:tree ‘blowgun’ in the first line of the example, is anaphorically referred back to in the second line lacking the head noun, and instead the classifier stands on its own taking all of the nominal morphology: na?\-
d5-hi\-
d6-ne blowgun-CL:tree ‘with the stick like object’:

11) niwã ?i\-
d7=peb-him=nit=hi\-
d8 ?i\-
d9-na? grandfather 3SG.M = be.together-exist = S.S = COM blowgun-CL:tree
    ?i\-
d10=ni\-
d11=nit na?\-
d12-hi\-
d13=webit=bu child = TOP CL:tree.like = COM
    bu\-
d14=du=mâw ‘the children hunt hummingbirds with the blowgun the grandfather had stolen from his neighbours’

Example (12) below illustrates the Kakua classifier -puku ‘CL:convex’ occurring as a free form, as well as two other classifiers that occur with a possessive prefix only, just like noun stems. This example is particularly relevant to the question raised above, regarding the unclear distinction between classifiers or nouns in general. E.g., the forms in example (12) can alternatively be understood as a free nouns, rather than as classifiers:

12) puku? ?i\-
d15=da\-
d16-na? CL:convex 3SG.M = CL:round-CL:tree ‘a tree with nodes along its trunk’ (the convex one, has nodes)
5.2.3 The inventory of classifiers

The inventory of Kakua classifiers comprises a rather small set of forms, if compared to that found in other languages of the Vaupés linguistic area (especially that described for Arawak Tariana (Aikhenvald 2003), which displays a long list of classifiers for shape, function, quantification, and other meanings that Aikhenvald (2003:87ff) calls specific classifiers. Also, Gómez-Imbert (1996) describes a large set of shape classifiers found in Tukanoan languages, most of which have semantics relating to the form or shape of the noun referent to which they are suffixed.

As stated in the section above, the distinction between classifiers and regular compounded nouns is fuzzy and the identification of classifiers is primarily based on their common semantics and functions.

The set of classifiers in Kakua numbers 15 suffixes for shape specifications, 2 classifiers for texture, and 2 gender classifiers (Tables 5.1 - 5.3). The first two sets are used with inanimate referents, while the latter is exclusively used with animate referents (there are, however, some examples where animate referents are also taking a classifier for shape). Tables 5.1 – 5.3 also indicate the possible etymology of this subclass of classifiers in Kakua. This information is important also because classifiers specifying texture are clearly related to Kakua native nouns, again blurring the distinction between noun compounding and classifier constructions. Some classifiers specifying for shape/form have a clear etymology from Kakua nouns or verb roots, and some others are very likely borrowed from Arawak or Tukanoan languages, as further discussed in sections §5.2.6 - §5.2.8.

Note that, unlike Eastern Tukanoan languages and Arawak Tariana spoken in the Vaupés, Kakua does not have a dedicated classifier to signal animacy of entities. Gómez-Imbert (1996:448-449), for example, in her discussion of Tukanoan, presents an animate/inanimate distinction in the plural, whereas in the singular animates are marked as masculine (or non-feminine) or feminine. Kakua does not make this animate/inanimate distinction in neither plural nor singular forms, and, as illustrated in §5.2.6, makes a gender distinction for feminine only in restricted contexts. Additionally, Tariana (Aikhenvald 2003:87ff) is described as having a classifier to signal animacy of entities.

The following Tables 5.1-5.3 show a comprehensive list of all classifiers in Kakua. Note that the possible etymologies given in these tables do not exhaustively explore all possible etymological sources, but they nevertheless serve to show interesting connections between Kakua classifiers and some other Amazonian languages.
Table 5.1 Gender markers

<table>
<thead>
<tr>
<th>Form</th>
<th>Semantics</th>
<th>Possible etymology</th>
</tr>
</thead>
<tbody>
<tr>
<td>-wili</td>
<td>Feminine</td>
<td>Kakua, (probably reconstructs to proto Kakua-Nikak, see Nikak <em>wili</em> (Mahecha 2009:79-84)</td>
</tr>
<tr>
<td>-ma</td>
<td>Feminine.Birds</td>
<td>?; see Arawak feminine classifier – <em>ma</em> (e.g. Tariana -ma ‘FEM’ in Aikhenvald 2003, Baniwa – <em>ma</em> ‘FEM’ in Ramirez 2001b:180).</td>
</tr>
</tbody>
</table>

Table 5.2 Shape classifiers

<table>
<thead>
<tr>
<th>Form</th>
<th>Semantics</th>
<th>Possible etymology</th>
</tr>
</thead>
<tbody>
<tr>
<td>-daʔ</td>
<td>Round object</td>
<td>Arawak: Baniwa – <em>da</em> ‘round’ (Ramirez 2001b:275); Tariana – <em>da</em> ‘round’ (Aikhenvald 2003:89). Also probably reconstructs to proto-Kakua-Nikak (see discussion below).</td>
</tr>
<tr>
<td>-naʔá</td>
<td>Flat</td>
<td>?</td>
</tr>
<tr>
<td>-pukuʔ</td>
<td>Convex</td>
<td>Arawak(?). See e.g., Baniwa - <em>póko</em> ‘circular shape’ in Ramirez (2001b:179); Tariana - <em>pukwi</em> ‘round and hollow’ in Aikhenvald (2003:89).</td>
</tr>
</tbody>
</table>

2 Probably also, the development of the classifier occurred in the proto-Kakua-Nikak stage, given that the form is also a classifier in Nikak (Mahecha 2009:79-84), and is both a classifier and a verb in Kakua.
Table 5.2 Shape classifiers (continued)

<table>
<thead>
<tr>
<th>FORM</th>
<th>SEMANTICS</th>
<th>POSSIBLE ETYMOLOGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>-tfāh</td>
<td>LONG THIN COVER</td>
<td>?</td>
</tr>
<tr>
<td>-wawā</td>
<td>LEAF LIKE, BRANCHES LIKE, BRUSHY, HAIRY</td>
<td>Probably reconstructs to proto-Kakua-Nikak. Also found in Nikak as a noun root and as a classifier for ‘leaves’, cf., Mahecha (2009:79-84)</td>
</tr>
<tr>
<td>-dub’</td>
<td>LONG THIN AND POINTED</td>
<td>?</td>
</tr>
<tr>
<td>-tuliʔ</td>
<td>THE OBJECT HAS LAYERS</td>
<td>?</td>
</tr>
<tr>
<td>-kūdəʔ</td>
<td>BUNDLE, BOUND OBJECT</td>
<td>Arawak origin?, c.f Tariana kūda ‘trunk’ (Aikhenvald 2003:89)</td>
</tr>
<tr>
<td>hidi</td>
<td>CIRCLE</td>
<td>Kakua verb hidi ‘surround’</td>
</tr>
<tr>
<td>paf</td>
<td>HOLLOW TRUNK/ BOX</td>
<td>?</td>
</tr>
</tbody>
</table>

Table 5.3 Texture classifiers

<table>
<thead>
<tr>
<th>FORM</th>
<th>SEMANTICS</th>
<th>POSSIBLE ETYMOLOGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>-maʔ</td>
<td>LIQUID from ‘water’</td>
<td>Probably reconstructs to proto-Kakua-Nikak. from Noun maʔ ‘water’, (see Mahecha 2009 Nikak maʔ ‘water’)</td>
</tr>
<tr>
<td>-dep</td>
<td>FLESH</td>
<td>Probably reconstructs to proto-Kakua-Nikak. From noun deb ‘flesh’. (see Mahecha 2009) Nikak deb</td>
</tr>
</tbody>
</table>

The main functions of classifiers in Kakua are described in sections §5.2.4-§5.2.5 below. Sections §5.2.6-§5.2.8 describe the semantics and use of each of the 19 classifier morphemes in Kakua presented in Tables 5.1-5.3 above, and further discusses potential cases of classifier borrowing.
5.2.4 Classifiers and derivation

Derivation is the most common function of classifiers in Kakua. The derivational function of classifiers is also common in classifiers in other Amazonian languages (see Aikhenvald 2000:220; Grinevald & Seifart 2004; Seifart & Payne 2007).

A classifier may attach to a noun, a nominalized verb to derive other nouns (as in (13), (15), (17), or to a verb root with no overt nominalizing morphology, also deriving nouns as in (18), (see also §4.3 in Chapter 4 for description of v-classifier as a nominalization strategy in Kakua). This is most typically found in terms referring to plants (13), but it is not restricted to this semantic domain (15):

13) a. \( mɨ \) ‘chontaduro fruit’ \((Bactris gasipaes sp.)\)
   b. \( mɨ-naʔ \) chontaduro-\( CL:\)tree
      ‘chontaduro tree’
   c. \( mɨ-naʔ \) chontaduro-\( CL:\)liquid
      ‘chontaduro beer’
   d. \( mɨ-daʔ \) chontaduro-\( CL:\)round
      ‘(one) chontaduro fruit’
   e. \( mɨ-wawā \) chontaduro-\( CL:\)brushy
      ‘chontaduro palm leaf’

14) \( mɨ \) ‘fruit.sp’ \( Pouteria ucuqui sp. \)
    \( mɨ-naʔ \) ‘ucuqui tree’
    \( mɨ-daʔ \) ‘ucuqui fruit’

15) \( ʔîpat- \sim ʔîbat- \) ‘metal’
   a. \( ʔîpat-dub\)\( ʔ \)
      metal-\( CL:\)long\( ,\)thin\( ,\)pointed
      ‘knife’
   b. \( ʔîpat-naʔa \)
      metal-\( CL:\)flat
      ‘machete’
   c. \( ʔîbat-pā-daʔ \)
      metal-\( CL:\)concave-\( CL:\)round
      ‘metal plate’ (also ‘pot lid’)

16) dǎk
   ‘write’
dǎk-at  ‘writing’ (write-NMLZ)
dǎk-at-dub  ‘pencil’ (write-NMLZ-CL:long.pointed)

17) těw-at-da?
   play-NMLZ-CL:round
   ‘ball’

18) bā̃h-tfō
   slide.on.water-CL:cover
   ‘boat’

In a few cases, two classifiers can be combined to form a compound. This is not very productive, and only a few instances are found throughout the data.

19) kit-da?
   ‘skirt’ (CL:log-CL:round)

   On the other hand, classifiers are used productively to form neologisms for items newly introduced in Kakua culture:

20) dǎk-at-da?
    write-NMLZ-CL:round
    ‘computer’ (lit: round thing for writing)

21) dǎdāʔ  ʔiib-ʔ-at-da?
    to.reflect take.out-NMLZ-CL:round
    ‘photographic camara’ (lit: round thing for taking out reflections)

22) nem-at-hidi
    close-NMLZ-CL:round
    ‘button’ (lit: round thing for closing)

23) hī-at-da?
    light.up-NMLZ-CL:round
    ‘light bulb’ (lit: round thing for lighting up)
5.2.5 Classifiers and anaphoric reference.

The second major function of Kakua classifiers is to establish anaphoric reference to a previously established referent. Note that this is not a formal property which would define classifiers, but in the absence of other nouns classifiers are often used to refer anaphorically to a full noun.

Anaphoric functions of classifiers have been described as a common function for other Amazonian languages (cf., Derbyshire and Payne 1990:243, also Seifart 2007 for Witotoan, Epps 2008 for Hup, Brandão 2014 for Paresí).

When serving an anaphoric function, classifiers need not be attached to a related noun, and can occur on their own referring anaphorically back to a previously mentioned full noun. This is illustrated in (24) below (repeated from example (11) above. ‘Blowgun’ ?ɨʔ-naʔ blowgun-CL:tree, in the first line of the example is referred back to in the second line with naʔ=hiʔ CL:tree = COM ‘with the stick-like object’.

24) nɨwá ?ā = peb-him = mit = hiʔ ʔɨʔ-naʔ grandfather 3SG.M = be.together-exist = S.S = COM blowgun-CL:tree

bũʔup = diʔ ʔāwaʔ hummingbird = OBJ kill
‘the children hunt hummingbirds with the blowgun that the grandfather had stolen from his neighbours’

Kakua classifiers are not involved in agreement, in the sense of a syntactic system that requires an agreement rule (rather than just semantic compatibility), and that is prototypically obligatory and realized on multiple target elements of a clause. Agreement or agreement-like functions have been described for many classificatory systems in various Amazonian languages (cf., Vengoechea 2000 on Muinane; Aikhenvald 2003 for Tariana; Seifart 2005 for Bora-Miraña; Seifart 2007 for Witotoan languages; Seifart & Payne 2007 on various languages of Northwest Amazonia; Danielsen 2008 on Baure; Epps 2008 on Hup; Brandão 2014 on Paresí).3

The anaphoric function of Kakua classifiers is comparable to the agreement function in the languages mentioned above in that classifiers in these languages also serve to indicate anaphoric reference to a previously established entity, but differs at least in the sense that, unlike the agreement function described for other Amazonian languages, classifiers in Kakua do not occur in multiple constituents of the clause. Instead, as described here, classifiers occur either attached to another noun (this can

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3 The agreement function in these languages vary in the degree of obligatoriness (or optionally marked), or whether or not the agreement is overtly marked on several target constituents of the clause from obligatory agreement in Bora-Miraña (Seifart 2005), to optional or even rare as described for Paresí (Brandão 2014) and Hup (Epps 2008).
also be a demonstrative, pronoun, or another nominal element in general as illustrated in some examples above), or without another noun for anaphoric reference.

Finally, classifiers are almost always expressed, especially those referring to shape and texture, but seem to not be obligatory as sometimes these classifiers are not expressed when expected to be. Gender classifiers (as described below), are expressed perhaps more optionally than shape and texture classifiers, and more commonly expressed when the speaker considers it relevant to provide information about the gender of the referent.

5.2.6 Gender classifiers

There are two gender suffixes -wili and -ma, one for feminine animates (excluding birds) and one for feminine birds only (as listed in Table 5.1 above). Note that these never occur as free forms, unlike shape classifiers. In general, gender classifiers in Kakua are used only for feminine animate entities. Gender specification is not obligatory, and it rather serves as additional information about an animate entity if this information is relevant.

The gender feminine classifier -ma is restricted in its distribution, and it serves to specify feminine gender only for birds (see exception below). The gender classifier -wili is used with all other animate entities whenever reference to female gender is being specified.

Expressing feminine gender is not obligatory for every female referent. Rather, it is used only when the distinction must be made or because it is relevant for the information given by the speaker. The fact that gender in Kakua is not an obligatory distinction in nouns with animate referents deviates somehow from the pattern found in the neighboring Eastern Tukanoan languages. In these languages, a grammaticalized distinction has been described between nouns with animate referents and nouns with inanimate referents in the plural forms (see Gómez-Imbert 1996 for Tukanoan). In Eastern Tukanoan languages, nouns with animate referents have gender classifiers (feminine or masculine) when in the singular forms, and specification for shape/form is made almost exclusively for nouns with inanimate referents. Additionally, the verbs in Eastern Tukanoan languages agree in gender with an argument of the verb (for classifier descriptions and verb morphology on Eastern Tukanoan languages cf. Ramirez 1997, Stenzel 2004, Chacon 2012, Silva 2012). Kakua, on the other hand, lacks a marker that specifically express male or ‘default’ gender of the referent. Additionally, the gender markers presented here are not obligatory and used only when the speaker considers it to be a relevant information to be stated.

\footnote{This is a particularly interesting distinction, which applies to all birds, in addition to the term for ‘deer’ wâ. This bird-feminine classifier is used when the reference to a female bird must be made. Otherwise, birds do not require the feminine classifier. The motivations for developing this distinction only for birds is still unclear.}
As described in Chapter 8 on Kakua verb morphology, and Chapter 12 on clause structure in Kakua, subject arguments are cross-referenced on the verb through proclitics. These proclitics make gender distinctions only for third person singular, while the rest of the paradigm remains without a specification for gender, neither on the pronominal system, nominal, or verbal inflections.

The feminine gender classifier -ma, as noted above, has a restricted distribution. It is suffixed only to nouns referring to birds, and, unexplainably so, also to the noun wâ ‘deer’:

25) jâw’-ma ‘female macaw’
26) hûp- ma ‘female vulture’
27) bûʔjup- ma ‘female humming bird’
28) wâ- ma ‘female deer’

It is intriguing to find that in Arawak Tariana (Aikhenvald 2003) and Cabiyari (my fieldnotes), both spoken in the Vaupés area, the feminine classifier is -ma.5

All other animate nouns, when these need to be specified for feminine gender, are suffixed with the feminine classifier -wili:

29) weʔbit-wili
cold-CL:fem ‘girl’
30) wâ=bâj-wili ‘sister in law’
31) mîhiw-wili ‘female dog’

5 See also Gómez-Imbert’s (1996) discussion of the Arawak influence in the classifiers of Barasana Cubeo, especially regarding feminine marking.
32) beh  kān’  mi=t-beh=na=wit=hĩ
    go  3SG.F  3SG.F = EVID-go = DECL = REP.EVID = REM.PST

    hâp-wili  kêt=heʔ
    young-CL:fem  3PL = INTS
‘the young woman went with them’

5.2.7 Shape classifiers

Classifiers specifying shape (and sometimes, by extension, also function) attach mainly to nouns with inanimate referents. The list of shape classifiers is given in Table 5.2 above. Specification for shape is very common with inanimate nouns. Classifiers almost always appear in nouns referring to body parts. However, some nouns with inanimate referents never include classifiers specifying their shape, among them nouns referring to large objects, like mi ‘house’, or jêw ‘sun’. Besides body parts, the marking of classifiers is common also in semantic domains such as plants, objects of cultural and subsistence needs such as pots, manioc grinders, machete, baskets, arrow, bow, blowgun, etc.

Some classifiers can also be used to refer to the shape or form of an animate entity. In these cases, the classifier has a descriptive-like function. See example (33) below, where the shape classifier is suffixed to a noun (or adjective) referring to an animate entity:

33) mi=t-tfâw-hiʔ = na  mi=nim-daʔ = diʔ
    3SG.F = EVID-stay-arrive = DECL  3SG.F = daughter-CL:round = OBJ
‘She arrived with her child (daughter)’

34) buiʔ-ṇi  bidî-daʔ
    teach-A.NMLZ  big-CL:round
‘the big fat teacher’

The use of the classifier for round shapes with animate entities seen in examples (33)–(34) above, is quite common in Kakua. Often Kakua speakers use this classifier to refer to children, as rounded beings, but it may also be used to refer to obese adults, or animals that have a round shape, such as turtles tîh-daʔ [turtle-CL:round] ‘turtle’, or armadillos jû-daʔ [armadillo-CL:round]. Note that the use of shape classifiers with animate entities functions as a modifier to the noun, and in these cases the classifier is not obligatory.
A. *Round shape classifier -da?*

This classifier is used with entities that have rounded, oval, or oblong shapes. As seen in (33)-(34) above, it may also be used with animate entities.¹

35) ʷǎw-daq
head-CL:round
'head'

36) ʰē-daq
mountain-CL:round
'hill/mountain'

37) tip-daq
egg-CL:round
'egg'

38) ʔāj = mah-daq
tṣəd-ip = wit = hī
3SG.M.POSS = basket-CL:round
sit-PST = REP.EVID = REM.PST
‘His basket was sitting (aside)’

The round shape classifier can also attach to nominalized verbs, deriving a noun with the meaning ‘rounded thing for VERBing’. Examples (39)-(42) below illustrate this:

39) ʔēw-daq
sing-CL:round
'throat' (rounded thing to sing)

40) tiw-at-daq
play-CL:round
'ball' (rounded thing to play)

41) pēw’-at-daq
to.hammer-NMLZ-CL:round
‘hammer’ (round thing to hammer) (alternative term: pēw’-at-naq to.hammer-NMLZ-CL:tree)

¹ This use of a shape classifier with animate referents seems to be most common with the round shape classifier. However, I also report one instance when the classifier for ‘tree’ shape, was used to refer to a skinny person. It is interesting to note that Kakua seems to be showing a similar use of shape-classifiers with animate referents as what Gomez-Imbert (1996) describes for Cubeo, where the principal shape distinction that has spread to animates involves roundness.
42) babʔ-at-daʔ
drink-NMLZ-CL:round
‘cup’ (round one for drinking).

The etymological source of this -daʔ round classifier is not yet clear. It is possible that this classifier was borrowed from an Arawak source (see for example Baniwa -da ‘round’ (Ramirez 2001b:275); Tariana -da ‘round’ (Aikhenvald 2003:89)). Note that both Tariana and Baniwa are spoken in an area very close to where Kakua is spoken (Tariana within the Vaupés area, and Baniwa just to the northeast of the Vaupés). On the other hand, note also that Nikak also has a -daʔ round classifier with the same semantics and functions (see Mahecha (2009:79-84)). Thus, if the -daʔ round classifier corresponds to a borrowing from Arawak, it must have entered Kakua before Kakua and Nikak separated, unless it could be claimed that it is also a borrowed from in Nikak and that it was borrowed into Nikak separately when the division of Kakua and Nikak had already occurred.7 In any case, the close resemblance between the Kakua-Nikak and Arawak forms suggests a past history of contact, however unclear the development of that history might be at this point.

B. Tree shape classifier -naʔ

Nouns referring to long, tree-like, or stick-like shaped objects are marked with the classifier -naʔ. The following examples illustrate this:

43) ʔɨ̂ʔ-naʔ
blow.gun-CL:tree
‘blowgun’

44) wɨ̂-naʔ
leg-CL:tree
‘leg’

45) ʔĩ=hutāt-naʔ=diʔ
3PL = yapurutú.flute-CL:tree = OBJ
tfēna = bō
tWO = LOC

hutāt-naʔ=diʔ
ʔĩ = t-bèw-ep = hī
yapurutú.flute-CL:tree = OBJ
3PL = EVID-carry-PST = REM,PST
‘They carried the yapurutu flute on both their shoulders’

7 Note also that given the short form of this classifier, the resemblance between Kakua-Nikak -daʔ and Arawak -da can also be due to chance. But it is also noteworthy that both the round classifier and the classifier for tree -naʔ ‘CL:tree’ (see below) have a correspondence between CV in Arawak and CV? in Kakua-Nikak. A comparative study looking at Arawak loans in Kakua or Nikak would have to establish whether a glottal stop gets regularly added to CV loans from Arawak.
For the etymology of this form in Kakua there are also two possibilities. First note that Nikak is also reported to have a -naʔ classifier, meaning ‘trunk’ (Mahecha 2009:74), suggesting that the form already existed in Proto-Kakua-Nikak. Whether or not this form had the same function as it does in the synchronic grammar of these two languages is unclear. As is the case for round classifier -daʔ presented in (A) above, a classifier with a similar form, semantics and function to that of -naʔ ‘CL.tree’ in Kakua is also found in Arawakan languages (cf., Tariana -na ‘long vertical’ in Aikhenvald (2003:90); Baniwa -na ‘trunk’ in Ramirez (2001:275); Paresí -nɛːɬ ‘long horizontally’ in Brandão (2014:185)). This similarity suggests a borrowing either into Kakua (or proto Kakua-Nikak) from an Arawak languages, or from Kakua-Nikak into Arawak. In any case, the direction of the borrowing, if so, remains unclear. However, the scenario in which Arawak languages borrowed from Kakua-Nikak might be harder to justify given the geographic distribution of the cognates in Arawak.

The form in itself is very short, also allowing for an explanation of chance coincidence. Thus, further investigation should focus on the history of the development of this classifier form in Kakua and Nikak.

C. Flat shape classifier -naʔá

Nouns denoting entities with flat surfaces, usually also associated with hardness, are marked with the classifier -naʔá. The etymology of this classifier is unclear.

47) kâh-at-naʔá
to.block/support-NMLZ-CL:flat
(varies with kâh- handwritten -páʔa heart-mouth-CL:cover ‘palate’) ‘soft palate’

48) kâg-at-naʔá
put.on.top-NMLZ-CL:flat
’table’

The classifier for trees is also -na in the Witotoan languages Ocaina and Witoto (Seifart 2007: 439). See also Valenzuela (submitted), for a similar form of a classifier for tree-like shapes in Kawapana Shiwilu and also a -na marker in Zaparoan languages.
D. Concave shape classifier -paʔa

Nouns referring to inanimate entities with a concave shape, are marked with the classifier -paʔa.

It is likely that the source form for this classifier goes back to Proto-Kakua-Nikak. Kakua has a verb paʔ ‘to cover’, and Nikak has a classifier form -páʔ ‘cover’ (see Mahecha 2009:79-84). Examples (49)-(50) below illustrate the use of this classifier:

49) wǎw-tʃâʔ-paʔa
   head-be.on.top-CL:concave
   ‘cap’

50) maj-paʔa
   snake-CL:concave
   ‘rainbow’

There are also similar forms described for Arawak, namely Tariana -pa ‘largish and long’ (Aikhenvald 2003:90) and Baniwa -aápa ‘oblong, largish’ (Ramirez 2001b:275). Because of the possible Kakua source form, the verb paʔ ‘to cover’, and the Nikak classifier form -páʔ ‘cover’ (see Mahecha 2009:79-84), this classifier appears likely to be inherited, rather than borrowed from Arawak. However, if inherited, then the verb itself, together with its development into a classifier, might have been present in the proto Kakua-Nikak stage.

E. Convex shape classifier -pukuʔ

Nouns referring to entities with convex shapes are marked with the suffix -pukuʔ, as seen in (51) below:

51) wudaʔ-pukuʔ
   belly-CL:convex
   ‘big bellied/paunchy person or thing’

The etymology of this classifier is unknown, and no corresponding form in Nikak is attested. Arawak Tariana has a classifier -pukupe with the meaning ‘a turn’ (e.g., u:ni-pukupe ‘turn of a river’ Aikhenvald 2003:92), and another classifier -pukwi ‘round and hollow’. Baniwa has a classifier -póko ‘circular shape’ (Ramirez 2001b:179). The similarity of these forms and their semantics suggests again, a borrowing from an Arawak source into Kakua. It is also possible to propose that Kakua was the original source of the forms -póko in Baniwa, and -pukwi Tarina, especially if indeed no corresponding form exists in Nikak. Whichever the origin of this form in Kakua might be, it is interesting to note again a possible connection with Arawak forms, suggesting at least an ancient interaction between Kakua and some Arawak languages.
F. Cover-like shape classifier -tʃû

The lexical noun tʃûw ‘skin/bark’ is a potential source form for the classifier -tʃû, used to specify inanimate entities that functions as a cover or skin for another entity, or that is regarded as having a cover-like shape. When developing from the lexical noun tʃûw ‘skin/bark’, the classifier would have undergone phonological reduction, as is typical in grammaticalization processes. But note that the noun for ‘bark’ in Kakua’s sister language is cú ‘bark’\(^9\) (see Mahecha 2009:79-83). Examples of the use of this classifier are given in examples (52)-(55) below:

52) turúp-tʃû
   loincloth-CL:cover
   ‘loincloth’

53) tipi-ni-tʃû
   roll-A:NMLZ-CL:cover
   ‘car’

54) hãh-tʃû
   slide.down.on.water-CL:cover
   ‘boat’

55) hǐh-tʃû
   fly-CL:cover
   ‘airplane’

G. Cylindrical or log-shaped objects classifier -kit

Nouns denoting entities having a log-like shape, or cylindrical shape, take the classifier -kit ‘CL:log’. The source of this classifier is unclear. The available description of Nikak does not report any form that resembles Kakua -kit ‘CL:log’.

Some Tukanoan languages, on the other hand, have been reported to have forms that might resemble this classifier, although not always having exactly the same semantics: Cubeo =-ki ‘tree’ (Chacón 2012:249); Desano -ku ‘tree’ or -gw ‘cylindrical, trunklike’ (Silva 2012:123-129); Wanano -ku ‘tree’ (Stenzel 2004:142). Examples of this classifier in Kakua are given below:

56) mā-kit
   tree-CL:log
   ‘log’

---

\(^9\) Note that Nikak c and Kakua /ʃ/ seem to be different orthographic representation of the same sound.
57) *hi-\textit{at-kit}*
   light.up-NMLZ-\textit{CL:log}
   ‘lantern’

58) *tâʔ-\textit{kit}*
   base.blowgun-\textit{CL:log}
   ‘base of blowgun’

H. Long, thin and concave, blade-like, tubular classifier -\textit{tfah}

The classifier -\textit{tfah} ‘\textit{CL:tubular}’ is found suffixed to nouns denoting entities that have a tubular shape, as in (59)-(60) below:

59) *pah-\textit{tfah}*
   guamo.fruit-\textit{CL:tubular}
   ‘guamo fruit shuck’

60) *horaʔ-\textit{tfah}*
   banana-\textit{CL:tubular}
   ‘banana fruit’

The source of this classifier in Kakua is not clear, nonetheless the following pieces of information below might serve useful for future research. First, various different morphemes in Kakua have phonological resemblances to Kakua tubular classifier -\textit{tfah}: verb \textit{tfãh} ‘do’, verb \textit{tfāʔ} ‘be on top’, noun \textit{tfā} ‘flower’, and the plant name \textit{tfāʔ} ‘plant.sp’ (plant similar to pineapple plant, the leaves of this plant are straight and long).

None of these forms suggest a convincing connection with the form of the tubular shape classifier -\textit{tfah} ‘\textit{CL:tubular}’. The shape of the leaves of the plant \textit{tfāʔ} is the only closer indication of a connection between the classifier -\textit{tfah} ‘\textit{CL:tubular}’ and the plant referent \textit{tfāʔ}. The leaves of this plant, though not tubular, are long and thin, satisfying at least two of the four properties encoded by this classifier: long, thin, blade like and tubular shapes.

Additionally, a classifier for tubular shapes is found in Nikak, with the form -\textit{tāʔ} (see Mahecha 2009:74). It is unlikely, however, that the Nikak form correspond to the Kakua verb root \textit{tāʔ} ‘be behind’, because there seems to be no explanation for the semantic extension from ‘be behind’ to a tubular, blade-like shape, nor is there a phonological motivation for the different forms.

In sum, although some forms within Kakua and the Nikak may suggest a proto Kakua-Nikak source for the tubular classifier -\textit{tfah} ‘\textit{CL:tubular}’, a clear etymological source cannot be derived from the synchronic data. Finally, note also that \textit{t} vs. \textit{tf} is not a regular sound correspondence between Kakua and Nikak (see also Epps & Bolaños submitted).
I. Brushy shape classifier -wawá

Nouns denoting entities with shapes resembling brushy, hairy shapes, e.g., leaves or branches, take the classifier -wawá. A cognate form is found in Nikak as a lexical noun meaning ‘leaf’ and as a classifier for leaves (Mahecha 2009:79-84). This is glossed here as ‘brushy’, although it should be understood as hairy like shapes. Examples for Kakua are given below:

61) tûd-at-wawá
   to.broom-NMLZ-CL:brushy
   ‘broom’

62) tʃâ-wawá
   flower-CL:brushy
   ‘petal’

This classifier in Kakua is used specifically for the shape of leaf or branches forms. When referring to the leaves of a plant, the noun niw ‘leaf’ is used in the N2 position of the compound, e.g. horaʔ-niwi ‘banana-leaf’. The brushy shape classifier is not used for single leaves, but for multiple things that stick out (leaves, sticks, petals).

J. Long, thin and pointed shapes classifier -dubʔ

Nouns denoting entities having a long, thin and pointed shape, are marked with the classifier -dubʔ. The source of this classifier is unknown. There is no verb or noun root in Kakua that can give clues motivating a derivation of this classifier from a lexical root. Examples are given in (63)-(65):

63) ɲɨ-p-at-dubʔ
    throw-NMLZ-CL:thin.pointed
    ‘arrow’

64) hĩ-at-dubʔ
    light.up-NMLZ-CL:thin.pointed
    ‘candle’

65) juk-dubʔ
    feather/hair-CL:thin.pointed
    ‘feather’

K. Layered classifier -tuliʔ

Nouns denoting inanimate entities with layers, like stacks, are marked with -tuliʔ. The source of this form is unclear, but it is very unlikely to be a native Kakua
form, since it violates the vowel harmony principle for monomorphemic bisyllabic structures/morphemes (see Chapter 2 on Kakua phonology).

The Wanano form -thu denoting stacked entities (Stenzel 2004:145) may be related to the classifier -tuliʔ in Kakua. Examples for Kakua are given below:

66) màʔ-tuliʔ
   water-CL:layers
   ‘cloud’

67) dǎk-at-tuliʔ
   write-NMLZ-CL:layers
   ‘book’

L. Bundle classifier -kuduʔ

Nouns denoting inanimate entities that are bounded together, e.g. a bundle of sticks, bound together with a rope or a thread, or tied up objects, are marked with the classifier -kuduʔ. This includes, wrists ankles, which can be seen as the point where fingers or toes are held together. The source of this classifier is obscure. The form -kuda found in Arawak Tariana (Aikhenvald 2003:89) resembles the form in Kakua, but the semantics are not so clearly connected: -kuda ‘CL:trunk’, vs Kakua -kuduʔ ‘CL:bundle’. Additionally, there is a Tukanoan form meaning ‘group’ or ‘bunch’, which has been borrowed into Hup (Epps 2015), maybe suggesting a Tukanoan source for this classifier in Kakua as well. Examples below show the use of this bundle classifier in Kakua:

68) hitʃa-kuduʔ
   foot-CL:bundle
   ‘ankle’

69) tej-a-kuduʔ
   hand-CL:bundle
   ‘wrist’

70) keh-kuduʔ
   fish-CL:bundle
   ‘bundle of fishes tied up with a rope’

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10 Speakers of Kakua recognize that this is a modern form for clouds, and recognize a construction no longer used, màʔ-pเทคน water-tip ‘cloud’. The morpheme pเทคน is found also in other constructions with the meaning of ‘tip of’, and is apparently falling in disuse. It is likely that it functioned as a classifier, but because the data does not show enough instances of this form, at this point is difficult to propose a more accurate analysis for this form.
M. Circle classifier -hidi

The classifier -hidi is related to the Kakua verb hid ‘to.surround/go.in.circles’. Consider the following example:

71) nem-at-hidi
    close-NMLZ-CL:circle:button

In the following example from a text, the classifier occurs first with the noun ṭfùjùb’pu ‘shield’ in (72) and once established, it occurs on its own for anaphoric reference to the circled thing that had already been mentioned (73):

72) ʔã=nɨ̃ m-da ʔ =di
    3SG.M =daughter-CL:round =OBJ spoil 3PL.POSS-shield-CL:circle =OBJ

wëj

‘he spoiled his daughter; and (he) handed over their shield’ (and said):

73) nin hidi =hi?
    DEM.PROX CL:circle =COM 1PL =daughter =OBJ mosquito

mâw-ɲîn-ip =na

‘with this circled one (you) can shoo away the mosquitos from our daughter’  

N. Hard container classifier -paj

Examples in (74)-(75) below show the classifier -paj, which denotes entities that have a hollow interior and that serve as containers, as long as these entities have a hard exterior. Container-like forms with a softer shell are denoted with the classifier -ɨd as seen in example (76), further below.

74) ʔâmo-at-paj
    pack-NMLZ-CL:hollow:closet

11 Note that the 1pl. proclitic refers to the possessor daughter, but not to the subject of shooing away. The subject of shooing away is stated earlier in the discourse; this was the 2sg pronoun, which is here omitted because it can be recuperated from discourse. Note also that it could be that the classifier for ‘circled shape’ in (73) may be bound to the demonstrative that precedes it, instead of standing on its own. The primary phonological clue motivating to present the demonstrative apart from the classifier is that in example (73) there is a pause in between the demonstrative and the classifier.
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75) nem-at-paf
   close-NMLZ-CL:hollow
   ‘wooden hollow trunk/wardrobe’

O. Soft container classifier -ɪd

The classifier -ɪd serves to denote inanimate entities that function as containers, with the specific quality of having a soft shells, such as shoes, like in example in (76) below:

76) hitʃ-ɪd
foot-CL:container
   ‘shoes’

The etymological source of this classifier is not clear. Nikak’s classifier for nouns denoting a shape or function of container-like is -dɪʔ ‘container’. Although the forms in these two languages have the same phonological elements, they differ in their structure and at this point no satisfactory explanation can be posited to account for a similarity between Kakua -ɪd and Nikak -dɪʔ.

5.2.8 Texture classifiers

The last set of classifiers, listed in Table 5.3 above, includes two morphemes that specify the texture of a referent. These classifiers are -maʔ ‘CL:liquid’ and -dep ‘CL:flesh’. These classifiers are directly derived from lexical nouns, and would be better understood as noun compounds that are developing classification function. The only cue that serves to identify them as classifiers instead of lexical nouns is that when functioning as classifiers (i.e. when suffixes to nouns) they lose phonological properties typical of lexemes, namely phonological tone. In other words, the phonological difference is that function morphemes generally lack tonal or pitch-accent distinctions, and instead they accommodate to the pitch prominence of the phonological word to which they attach. Examples of the uses of these classifiers are given below:

77) hiwi-dep
   tapir-CL:flesh
   ‘tapir flesh/meat’

78) kib-maʔ
   eye-CL:liquid
   ‘tear’
5.2.9 Summary

In summary, Kakua has a set of classifiers, which morphosyntactically closely resemble nouns used as N2 in compounds, but that have a distinctive semantic profile and that function as derivational and anaphoric devices, very similar to classifiers in neighboring languages. There is ample evidence that these classifiers developed through contact with neighboring languages in a number of respects.

5.3 Possession

5.3.0 Introduction

Possessive marking of nouns in Kakua differentiates between inalienable-alienable possession strategies. Additionally, some nouns can be identified as being obligatorily vs. optionally possessed (see §5.3.2 below). The distinction between inalienably-alienably possessed nouns relies on how possession is expressed (the possession marking strategy). Inalienably possessed nouns, as opposed to alienably possessed ones, do not take possessive pronouns nor do they take the possessive suffix to indicate its relationship with its possessor. Inalienable possession is marked via plain (non-possessive) pronouns which attach to the inalienably possessed noun (§5.3.3). Inalienable nouns are obligatorily possessed. Alienable possession is marked with the possessive suffix or with the possessive form of pronouns (§5.3.1).

In addition to the possession marking strategy of inalienable-alienable, a set of nouns are obligatorily possessed. Like inalienable nouns, this set of nouns must be possessed; however, unlike inalienable nouns, the obligatorily possessed nouns take possessive pronouns. The set of obligatorily possessed nouns are described in (§5.3.4).

Possessive relations can be marked through the use of proclitic pronouns for inalienable possession; possessive pronouns (proclitics) for both obligatorily possessed nouns and alienable possession; and the possessive suffix -ʔǐ, used for obligatorily possessed nouns and alienable possession as well. In addition, predicative possession is expressed with the verb bibuʔ ‘have’.

Kakua does not have a class of nouns that cannot be possessed. Virtually any noun can potentially be possessed. However, there is a semantic class of nouns that if ever put into a possessive construction is regarded by speakers as an odd construction, although these are not judged as grammatically wrong. This semantic

\[ \text{jufur-} \text{maʔ} \]
fece-CL:liquid
‘diarrhea’

12 In Kakua morphosyntax only kinship terms are treated as inalienable (this is consistent with Nichols’ (1988:572) implicational hierarchy to predict which concepts are cross-linguistically the most likely ones to be morphosyntactically treated as ‘inalienable’, see §5.3.2 below.
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class includes flora and fauna in general, and other ecological elements such as sky, moon, sun, river, forest, stones, etc.

For terms for fauna, for example, the only possible situation in which a noun denoting an animal can appear in a possessive construction is either if the animal has been raised as a pet (80) and (81), or if referring to the hunted dead animal (82):

80) \( \text{f} \text{i} \text{ʔ} = \text{må} \text{na} \)
   1PL.POSS = iguana
   ‘our iguana’

81) \( \text{webi}-\text{i} \text{ʔ} \text{ʔù} \text{m} \)
   child-POSS anteater
   ‘the children’s anteater’

82) \( \text{w} \text{ĩ} \text{ʔ} = \text{ti} \text{ʔ} \)
   1PL.POSS = wild.pig
   ‘my wild pig’

83) \( \text{w} \text{ĩ} \text{ʔ} = \text{mù} \text{mo}-\text{hiwi} \)
   1PL.POSS = to.plant-tapir
   ‘my cow’

84) \( \text{ʔi} \text{ʔ} = \text{më} \text{baj} \)
   3PL.POSS-hen
   ‘their hens’

Example (83) above, though accepted by speakers, was described as being somewhat strange. Rather they would prefer a construction involving a plural possessor as ‘our cow’ instead of ‘my cow’.

5.3.1 Alienable possession

Alienable nouns are those that when possessed take the possessive form of the pronouns (see Table 5.4 below), or can also be marked with the possessive suffix -\( \text{i} \) POSS’. Most nouns in Kakua are possessed through this strategy. When the possessor is a full noun, in an alienable possessive construction, the possessor is suffixed with the possessive morpheme -\( \text{i} \) POSS (examples (85)-(86) below). Note that this suffix could be called a genitive case marker. However, it occurs in a different morphosyntactic slot than other case markers, i.e., because it occurs on the dependent
rather than the head of the NP. For this reason is best not to understand this suffix as a grammatical case morpheme.

85) \textit{Balbina-ǐʔ mĩ namã-tak = bũ = ka}  
Balbina-POSS house path-middle = LOC = ASS  
\textit{ʔã=hĩ m=na=ka}  
3SG be/exist = DECL = ASS  
‘Balbina’s house is at the middle of the trail’

86) \textit{nun hěj-kan = hĩ wěm Colombia-ǐʔ haʔ=diʔ}  
DIST.DEM know-NEG = REM.PST 1SG Colombia-POSS mouth = OBJ  
‘back then I did not know any Spanish’ (lit. Colombian’s mouth)

The possessed entity must always immediately follow the possessor (Possessor-ǐʔ Possessed). A reverse or alternate order was not accepted by speakers when they were presented examples b-c in (87).

87) a) \textbf{Possessor-ǐʔ} \textbf{Possessed}  
\textit{mā-ǐʔ jegěʔ mā-at = ka}  
chief-POSS clothes be.old-NMLZ = ASS  
‘the chief’s old clothes’

b) \textbf{Possessor} \textbf{Possessed}  
\textit{*mā-ǐʔ mā-at = ka jegěʔ}  
chief-POSS be.old-NMLZ = ASS clothes  
Intended meaning: ‘the chief’s old clothes’

c) \textbf{Possessed} \textbf{Possessor-ǐʔ}  
\textit{*jegěʔ mā-ǐʔ mā-at = ka}  
*clothes chief-POSS be.old-NMLZ = ASS  
Intended meaning: ‘the chief’s old clothes’

The order of possessor-possessed conforms to the typical order for possessive constructions in Amazonian languages (see Dixon & Aikhenvald 1999: 8).

Possessive pronouns in Kakua are proclitics formed by the fusion of the bound pronominal forms and the possessive suffix -įʔ (see Table 5.4 below. A description of the pronominal paradigm in Kakua is given in Chapter 7).
Table 5.4. Kakua possessive pronouns

<table>
<thead>
<tr>
<th>Bound Pronouns</th>
<th>Possessive Pronouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>wã=</td>
</tr>
<tr>
<td>2SG</td>
<td>ma=</td>
</tr>
<tr>
<td>3SG.M</td>
<td>ʔã=</td>
</tr>
<tr>
<td>3SG.F</td>
<td>ʔi=</td>
</tr>
<tr>
<td>1PL</td>
<td>ʔi=</td>
</tr>
<tr>
<td>2PL</td>
<td>ʔi=</td>
</tr>
<tr>
<td>3PL</td>
<td>ʔi=</td>
</tr>
</tbody>
</table>

The examples below further illustrate the use of these possessive pronouns in alienable possessive relations:

88) ʔĩʔ = kãw-na=diʔ  
3PL.POSS = chilli.pepper.PL = OBJ  
their chili pepper soup

89) ʔãǰ = wam-daʔ  
3SG.M.POSS = clay.pot-CL.round.AUG  
His big clay pot

5.3.2 Two types of obligatorily possessed nouns: inalienable possession and inherently possessed nouns

Obligatory possessed nouns represent a closed set of nouns that cannot occur without a possessor which is phonologically bound (cliticized) to the possessed noun. Obligatory possessed nouns are further divided into two groups: 'inalienable' and 'obligatorily' possessed nouns. These differ in the way they are marked for possession. While inalienably possessed nouns do not take possessive pronouns or possessive suffixes, obligatorily possessed nouns do.

In Kakua morphosyntax only kinship terms are treated as inalienable. Body part terms, parts of plants, and other terms referring to things closely related to humans, could be considered conceptually ‘obligatorily’ possessed entities, but although these terms are obligatorily possessed, their morphological expression of possession is crucially different from the inalienable nouns (they are not possessed using the inalienable strategy).

The literature on possessive constructions (e.g., Nichols 1988, Chappell & McGregor 1996, Heine 1997, Mithun 2001) has pointed out the difficulty to universally describe a cross-linguistic characterization of the class of nouns that can typically be identified for inalienable possession. As pointed out by Nichols (1988:572), ‘inalienable’ possessed nouns vary both semantically and structurally.
Nichols (1988:572) proposed the following implicational hierarchy to predict which concepts are cross-linguistically the most likely one to be morphosyntactically treated as ‘inalienable’:

1. Kin terms and/or body parts
2. Part-whole and/or spatial relations
3. Culturally basic possessed items

Nichols places body parts and kinship terms at the top of the scale noting that while “kin terms and body parts disjointly head the implicational hierarchy, it can be said that kin terms are more strongly represented” (Nichols 1988:573).

Accordingly, the ‘inalienable’ group of nouns in Kakua is only represented by kinship terms, reflecting Nichols’ observation about kin terms being the nouns that are cross-linguistically most frequently treated as ‘inalienables’. In the following sections I present more extensively the way in which Kakua expresses the notion of inalienability vs. inherently (obligatorily) possessed nouns.

5.3.3 Inalienably possessed nouns

As stated above, only kinship terms in Kakua are treated as inalienable nouns. These nouns are obligatorily possessed (unless in vocative form, see below) and their expression of possession is formed by preposing a proclitic pronoun (not the possessive form of the pronoun) followed by the possessed noun (PN=N) where no possessive marker is used. Alternatively, the noun may be compounded to a possessor noun in inalienable possession (N-N as in *Manué-wíʔ ‘Manuel’s son’).\(^\text{13}\)

Note that although these type of N-N compounds is a fairly common construction in Kakua (see §5.2 above), only N-N involving kinship terms express an inalienable possessive construction.\(^\text{14}\)

A table showing the free, bound, and possessive pronouns in Kakua is given below (see Chapter 7 for description of pronouns in Kakua). Inalienable possession takes only the bound pronouns (proclitics), and not the free forms of the pronouns:

\(^{13}\) In these type of N-N(kinship term) compounds, the motivation for proposing the elements as being bounded instead of as being juxtaposed, is based on phonological clues. The bounded elements form a single phonological unit, without possible pauses in between the elements.

\(^{14}\) Note, however, that other types of N-N compounds, such as part-whole relations (see §5.1 above) may be comparable to possessive relationships. I consider here only the type of compounds of N-N involving kinship terms as inalienable because of their strategy of possession marking when not in an N-N compound. In other words, nouns involved in N-N compounds expressing part-whole relations, for example, do take possessive prefix or possessive pronouns in other contexts, whereas nouns referring to kinship terms never do.
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Table 5.5. Kakua pronominal forms

<table>
<thead>
<tr>
<th>Free pronouns</th>
<th>Bound Pronouns</th>
<th>Possessive Pronouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>wěm</td>
<td>wã =</td>
</tr>
<tr>
<td>2SG</td>
<td>měm</td>
<td>ma =</td>
</tr>
<tr>
<td>3SG.M</td>
<td>kǎn</td>
<td>ʔã =</td>
</tr>
<tr>
<td>3SG.F</td>
<td>kǎnʔ</td>
<td>mĩ</td>
</tr>
<tr>
<td>1PL</td>
<td>fĩ</td>
<td>fĩ =</td>
</tr>
<tr>
<td>2PL</td>
<td>jěb</td>
<td>mĩ</td>
</tr>
<tr>
<td>3PL</td>
<td>kět</td>
<td>ʔĩ</td>
</tr>
</tbody>
</table>

The forms in (90) display a comprehensive list of Kakua’s referential kinship terms. Note that terms for ‘son’ and ‘daughter’ encompass both sons and nephews and daughters and nieces, respectively. With plural possessors, interpretation as ‘nephews’ and ‘nieces’ is more likely and therefore given as a translation. Additionally, another term (which is not strictly a kin term) that is treated as inalienable for its marking strategy is ꜏fên ‘friend’ (see (109) below).

90) wã = ?łp 'my father'
wã = ?łn 'my mother'
wã = ꜏fêʔ 'my (maternal) aunt'
wã = ꜏fįd 'my (paternal) aunt'
wã = ꜏fb i 'my uncle'
wã = ꜏faan 'my younger sister' (1SG = female.sibling)
wã = ꜏f-an-hepɛ 'my older sister' (1SG = female.sibling-older.sibling)
wã = ꜏fđ 'my younger brother' (1SG = male.sibling)
wã = ꜏fđ-hepɛ 'my older brother' (1SG = male.sibling-older.sibling)
wã = ꜏fɛr-nim 'my (maternal) female cousin' (1SG = aunt-daughter)
wã = ꜏fɛr-nim 'my (maternal) female cousin'
wã = ꜏fɛr-wîr 'my (paternal) male cousin' (1SG = aunt-son)
wã = wĩ 'my son'
wã = nim 'my daughter'
wã = niv 'my grandfather'
wã = ꜏fɛt 'my grandmother'
wã = hĩmia 'my grandchild'
 ꜏f i = wîl 'nephew' (1PL-son 'our son')\(^{15}\)
 ꜏f i = nim 'niece' (1PL-daughter 'our daughter')
wã = bãji 'my brother in law' (1SG-sibling.in.law)
wã = bãji-wili 'my sister in law' (1SG-sibling.in.law-CL:female)
wã = hêrbû 'my husband'

\(^{15}\) Note that in the construction for ꜏f i = wîl ‘nephew’, and ꜏f i = nim ‘niece’, there is an apparent ambiguity with the translation. However, in Kakua culture, it seems as if children from the same clan are in general all regarded as ‘sons’ and ‘daughters’, independently of whether they are or not born to the same parents.
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\( w\alpha = h\check{e}\check{b}\check{u}\text{-}wili \) ‘my wife’
\( w\alpha = h\check{u}\check{n} \) ‘my father in law’
\( w\alpha = \check{f}\check{i}\check{t} \) ‘my mother in law’
\( mi = \check{f}\check{i}\check{t} \) ‘her mother in law’
\( \check{i} = \check{f}\check{i}\check{t} \) ‘their mother in law’
\( ma = \check{f}\check{i}\check{t} \) ‘your mother in law’
\( \check{f}\check{a}\check{m}\check{u} = \check{f}\check{i}\check{t} \) ‘Samuel’s mother in law’

In inalienably possessed relations, the possessor is necessarily an animate entity, namely the point of reference for the kinship relation. When the possessor is unknown or unspecified, the inalienable construction is formed with the 3 SG.M proclitic pronoun \( \check{u} = \), expressing possession by an indeterminate being (‘somebody’s kin’):

91) \( \check{u} = \check{f}\check{i}\check{t} \) ‘his/somebody’s mother in law’
\( \check{u} = w\check{f}\check{i} \) ‘his/somebody’s son’
\( \check{u} = \check{f}\check{i}p \) ‘his/somebody’s father’

Vocative forms of nouns do not express the possessor. Vocative forms of kin terms thus are not possessed (they do not take any form of possession).

Vocative forms are typically formed by a reduplication of the stem vowel or the insertion of a final [a] at the end of the stem. The last syllable receives high tone. The criteria motivating the choice of the vowel quality – whether reduplication of the stem vowel or insertion of final [a]– is unclear at this point.

Vocative forms are presented here as variations of kin terms, and not as a grammatical case in Kakua. Case in Kakua is a grammatical category which encodes a certain grammatical function, and it is not the case for the vocative forms presented in the list below. Vocative is not considered as a grammatical function, neither as a suffix encoding a certain ‘vocative’ case. The forms presented here are limited to kin terms and do not extend as a function (grammatical) case to other nouns. Examples in (92) illustrate vocative forms of some kin terms. Note that the term for sibling/cousin does not change in vocative vs. referential forms:

<table>
<thead>
<tr>
<th>Vocative form</th>
<th>Referential form</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \check{e}\check{t}\check{a} )</td>
<td>‘grandma!’</td>
</tr>
<tr>
<td>( n\check{i}\check{w}\check{a} )</td>
<td>‘grandpa!’</td>
</tr>
<tr>
<td>( \check{f}\check{e}\check{\check{t}}\check{\check{a}} )</td>
<td>‘aunt!’</td>
</tr>
<tr>
<td>( \check{\check{i}}\check{b}\check{i} )</td>
<td>‘uncle!’</td>
</tr>
<tr>
<td>( \check{\check{i}}\check{\check{d}}\check{\check{i}} )</td>
<td>‘little brother!’</td>
</tr>
<tr>
<td>( \check{\check{f}}\check{\check{a}}\check{\check{n}}\check{\check{a}} )</td>
<td>‘little sister!’</td>
</tr>
<tr>
<td>( h\check{e}\check{n}\check{\check{e}} )</td>
<td>‘big sibling/cousin!’</td>
</tr>
</tbody>
</table>

Additional examples of possession in kin terms are given below:
93) \( ñ = bāf \)
\( 3\text{PL} = \text{brother.in.law} \)

\( ñ = t-hji bi = na = \text{wit} = hĩ \)
3SG.M = EVID = arrive.there = DECL = REP.EVID = REM.PST

‘their brother in law arrived (is said)’

94) Q: deʔiʔ \( ñ=bāf \) = diʔ? ma = ñ=en=nit bikā
Q,W 3SG.M = son = OBJ 2SG = see = INTERR EMPH

‘Whose son did you see?’

A: Manuel-wĩʔ = diʔ? wẽm Manuel-wĩʔ = diʔ?
Manuel-son = OBJ 1SG Manuel-son = OBJ

\( wĩ = ñ=en-ep = be \)
1SG = see-PST = REC.PST

‘Manuel’s son! I (just) saw Manuel’s son!’

Younger generations, however, ever more readily accept possessive constructions of kin terms involving possessive pronouns, i.e. the set of special possessive proclitics otherwise used only in alienable possession. This has not extended to the entire set of kin terms, and the judgment for acceptability of kin terms with possessive pronouns or bound (non-possessive) pronouns, is unclear. The following forms were accepted by younger speakers, while rejected by older generations:

\( wĩ = ñ=in \) ~ \( wĩ = ñ=in \) ~ \( wĩ = ñ=in \) ~ \( wĩ = ñ=in \) ~ \( wĩ = ñ=in \)

‘my mother’

Although these forms were accepted by younger speakers, even they stated that the constructions with the bound pronouns (not possessive pronouns), “sounded” better. Forms that were not accepted by either group were: \( wĩ = ñ=in \) (*\( wĩ = ñ=in \) ‘my mother’, and \( wĩ = mā \) (*\( wĩ = mā \) ‘my parents’).

The use of regular pronoun forms, or juxtaposition of the possessor-possessed entities without further special marking of possession as a means of expressing possessors of kinship terms seems to be a fairly common strategy among many of the languages of the Vaupés linguistic area (cf. Jones & Jones 1991: 61 for Barasano; Ramirez 1997 for Tucano; Barnes 1999: 218, Miller 1999:48 and Silva 2012 for Desano; Maxwell & Morse 1999, and Chacón 2012 for Cubeo; Stenzel 2004 for Wanano; Ospina 2002 for Yuhup; Epps 2008 for Hup). While Kakua does not make use of free pronominal forms for possessive constructions, its possession strategy for kin terms is similar to that found in other Vaupés languages:
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95) Hup (Epps 2008: 234)
\[ ?\text{ʔh} = ?\text{ʔp} \]
\[ 1\text{SG} = \text{father} \]
‘my father’

96) Yuhup (Ospina 2002: 240)
\[ ?\text{̃́p} i\text{́p} \]
\[ 3\text{SG} = \text{father} \]
‘his father’

97) Barasano: (Jones and Jones 1991: 61)
\[ i \quad \text{jikî} \]
\[ 3\text{SG.M} = \text{grandfather} \]
‘his grandfather’

98) Desano: (Miller 1999: 48)
\[ y\text{i} \quad y\text{ēkô} \]
\[ 1\text{SG} = \text{grandmother} \]
‘my grandmother’

99) Wanano (Stenzel 2004: 193)
\[ y\text{u} \quad \text{phu-ku} \]
\[ 1\text{SG} = \text{parent-masc} \]
‘my father’

5.3.4 Obligatorily possessed nouns

Obligatorily possessed nouns are nouns considered as ‘inherently’ possessed, that is, they must always occur within a possessor. Nouns that are inherently (obligatorily) possessed differ from inalienable possession in that the former can take possessive pronouns, whereas inalienably possessed nouns only occur with non-possessive bound pronouns (proclitics) or bounded to its possessor (no marking of possession neither by possessive suffix, nor by possessive pronouns). Additionally, the possessor of inherently possessed nouns can be marked with the possessive suffix -\text{ʔi} whenever the possessor is a full noun.

Inherently possessed nouns differ from alienable nouns in that, though both use the same strategy for possession marking, inherently possessed nouns must always be marked as possessed. The set of obligatorily possessed nouns includes the following types of nouns:
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i) Nouns denoting body parts
ii) part-whole relationships
iii) Terms referring to things closely associated with people: clan affiliation, family, friend-companion, owner, sensorial feelings, shadow, soul (see below for examples).

A. Body parts

In principle all terms referring to body parts in Kakua are obligatorily possessed; they must always be preceded by N-ǐʔ (the inalienable strategy of using plain bound pronouns, shown in Table 5.5 above, is not used for body parts), or can be bound to the possessor forming part-whole relations (see discussion for (105) below), and body part terms used in numerals (see Chapter 7 for description of numerals).

When the possessor of a body part is unspecified or unknown, the term referring to such body parts must occur with the possessive pronoun for 3SG masculine ʔāf = ‘3SG.M.POSS’:

100) ʔāf = tēj ʔa  ‘his/somebody’s hand’
   ʔāf = hīʧa  ‘his/somebody’s foot’
   ʔāf = pih  ‘his/somebody’s tail’
   ʔāf = haʔ  ‘his/somebody’s mouth’
   ʔāf = wɨ̀k  ‘his/somebody’s nose’
   ʔāf = nem  ‘his/somebody’s guts’

101) mĩf = mǎw-na  ‘her teeth’ (3SG.F.POSS = tooth-PL)
    ʔĩ = mǎw-na  ‘their teeth’
    webit-ǐʔ  ʔāf = mǎw-na  ‘the child’s teeth’
    child-POSS 3SG.M.POSS = tooth-PL

102) ʔāf = pih-kit = diʔ  japat-naʔ  wā = ṭen-ep = be
    3SG.M.POSS = tail-CL :log = OBJ tip-CL :tree 1SG = see-PST = REC.PST
    ‘I saw the tip of his tail (the alligator’s)’

Most numerals in Kakua are composed of body parts terms, e.g. hands, fingers, feet (a description of Kakua numerals is given in Chapter 7). Although when used as numerals body part terms are not considered as being possessed per se, the bound construction may be akin to a possessive construction:

103) māw = diʔ  beh = na  bīk = hīʔ = bū  tēj  ja
    kill = OBJ  go = DECL  one = COM = EMPH  hand (five)
    jěw-hãp  sun-new
    ‘(they would) go hunt for five days’ (five = with one hand)
Compounding of two body part nouns serves a possessive function of the part-whole type. Note that in this type of construction there is no use of a possessive proclitic or possessive pronoun on either element. I interpret this lack of a possessor on an otherwise obligatorily possessed noun as an indication that the compound in itself is sufficient to express the possessive relationship, since the body part terms are not occurring on their own as free roots. However, the different marking when taking a proclitic pronoun sets them apart from inalienably possessed nouns, since these body part terms do take possessive pronouns as opposed to inalienably possessed kin term nouns:

104) māw-dep ‘gums’ (tooth-flesh)
    pōwa-idp-na ‘ribs’ (rib-bone-PL)
    haʔ-jū ‘beard’ (mouth-hair)

As described in section §5.2 inanimate nouns can be specified for shape by taking shape classifier suffixes. Body part terms are also specified for their shape as illustrated in the following examples. In these compounds too, possessor marking is absent, but I follow the same assumption made for the previous examples in (104) above, where the compound in itself has a possessive function. In any case, nouns referring to body parts do not occur on their own, and must have some kind of bound morphology, be it a possessive pronoun, another noun (N-N), a noun classifier (N-N\text{classifier}), or other morphology:

105) māw-paʔa ‘jaw’ (tooth-CL:concave)
    wāw-daʔ ‘head’(head-CL:round)
    mih-naʔ ‘arm’ (arm-CL:tree)
    wī-naʔ ‘leg’ (leg-CL:tree)

B. Part-whole relationships

Nouns whose referents are considered to be inherently part of another referent (like plant parts as seen in 5.2 above in the description of classifiers) are obligatorily bound. In such constructions, N1 corresponds to the whole and N2 to its part (see §5.1 above on noun compounding strategies and productivity). Examples of these part-whole relations are given below:

106) ?ūʔ-tāʔ-kit
    blowgun-base.of.blow-gun-CL:log
    ‘mouth piece of the blowgun’

107) mih-f ēh
    river-other.side
    ‘shore’
What sets these examples apart from inalienably possession is that when possessed via a pronoun, the possessive pronoun is used, instead of the bound (non-possessive) pronoun, which is exclusively the inalienable strategy. Thus, to express that the mouth piece of the blowgun pertains to somebody, e.g., ‘my mouth piece of the blowgun’, the relation will be expressed as \( \text{w}̃̌\text{ʔ} = \text{ʔ}̃̌\text{ʔ}-\text{t}̃̌\text{ʔ}-\text{k}̃̌\text{ʔ} \), using the possessive form of the pronoun, and not as *\( \text{w}̃̌\text{ʔ} = \text{ʔ}̃̌\text{ʔ}-\text{t}̃̌\text{ʔ}-\text{k}̃̌\text{ʔ} \) with the non-possessive pronoun.

C. Other obligatorily possessed entities

Terms referring to objects that are closely associated with people or that are indispensable for subsistence are also inherently possessed. Therefore, nouns referring to these elements must always be encoded within a possessive construction. The set of other obligatorily possessed entities includes the following:

i) Clan and language affiliation, family, friend-companion, shadow, souls.

ii) Some terms denoting emotions and feelings, and nominalized forms of some verbs.

108) \( \text{m}̃̌\text{ʔ} \) = \( \text{b}̃̌\text{ʔ}-\text{ʔ} \), \( \text{hi}̃̌\text{ʔ} \), \( \text{f}̃̌\text{ʔ} = \text{m}̃̌\text{ʔ} \), \( \text{h}̃̌\text{ʔ} \).

\( \text{min-na\}^\text{G}^\text{2PL}^\text{POSS} \) = \( \text{chat-tell-IMP} \)
‘tell it just in Kakua, in our language’

109) \( \text{w}̃̌\text{ʔ} = \text{ʧ}̃̌\text{ʔ} \) = ‘my friend’
\( \text{ʔ}̃̌\text{ʔ} = \text{ʧ}̃̌\text{ʔ} \) = ‘his/somebody’s/a friend’ (3SG.M = friend)

Emotions and feelings are typically encoded by (nominalized) descriptive verbs. When nominalized, these descriptive verbs are obligatorily possessed.

110) \( \text{w}̃̌\text{ʔ} \) = \( \text{ʧ}̃̌\text{ʔ} \) = ‘my friend’
\( \text{ʔ}̃̌\text{ʔ} = \text{ʧ}̃̌\text{ʔ} \) = ‘his/somebody’s/a friend’ (3SG.M = friend)

\( \text{w}̃̌\text{ʔ} = \text{beh-min} = \text{na} = \text{ka} \)
\( \text{w}̃̌\text{ʔ} = \text{ʧ}̃̌\text{ʔ} = \text{di?} \)
\( \text{w}̃̌\text{ʔ} = \text{ʧ}̃̌\text{ʔ} = \text{tib-at} = \text{di?} \)
\( \text{w}̃̌\text{ʔ} = \text{ʧ}̃̌\text{ʔ} = \text{tib-at} = \text{di?} \)

\( \text{ʔ}̃̌\text{ʔ} = \text{ʔ}̃̌\text{ʔ} = \) ‘I plan to go to the doctor tomorrow maybe he can look at my illness (pain)’
Noun compounding, noun classification and possession

111) wēm wē>jēp-tāʔ-tīb=na=ka bikā
1SG = be.jealous-be.on.top-be.painful = DECL = ASS = EMPH
‘I am jealous, you know?’

112) ʔi=ʔi-him-at=tīʔ
3PL.POSS = be.first-exist-NMLZ = INTS
‘of how their first times where’ (the beginning of their existence)

113) mǐʔ=ʔēn-at
3SG.F.POSS = see-NMLZ
‘her vision/her sight’

5.3.5 Belonging to: associatives as a possessive marking strategy

In addition to the strategies presented above for the expression of possessive relations, Kakua encodes a possessive relation between nouns referring to animate entities and a place to which the entity is affiliated (the ‘belonging’ of an animate referent to a certain place). The morphemes marking this type of possessive relation are called here associative markers. Associative markers are clitics that have a singular form = bū ‘ASSOC.SG’, and a plural counterpart = mūn ‘ASSOC.PL’:

114) Colombia=diʔ=bū
Colombia = OBJ = ASSOC.SG
‘Colombian’

115) nēp… kān nēp Bapdaʔ=bū
hesitation.tag 3SG.M hesitation.tag Wacurabā = ASSOC.SG
‘that guy, what’s his name?, the one from Wacurabá’

116) panit=na njat fit
and.so = DECL everything 1PL Wacarā = diʔ=mūn
Wacarā = OBJ = ASSOC.PL

Letīťa, Maŋarita
Leticia, Margarita
‘and so, all of us that are from Wacarā: Leticia, Margarita’
Chapter 6

Argument marking and case marking

6.0 Introduction

This Chapter presents a description of Kakua’s syntactic and morphological strategies for coding grammatical relations of arguments, and also describes case marking for adjuncts.

The grammatical relations of arguments in Kakua are marked by morphological and syntactic means. An interesting characteristic of the coding of grammatical relations in Kakua is its mixture of head-marking and dependent-marking strategies (in terms of Nichols 1986).

Subject arguments are cross-referenced on the verb (a head-marking strategy), while object arguments (encompassing any argument in a function other than subject), receive case morphology, marked on the NPs themselves (a dependent-marking strategy, see examples 1-3 in Chapter 3).

Kakua’s alignment is strictly nominative-accusative. Object arguments and adjuncts receive case marking. This is summarized in Table 6.1 below:

Table 6.1 Kakua case markers

<table>
<thead>
<tr>
<th>Core cases (arguments)</th>
<th>Function</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject (of intransitive or transitive predicate)</td>
<td>cross-referencing proclitics on the verb</td>
<td></td>
</tr>
<tr>
<td>Object (direct and indirect objects)</td>
<td>$=diʔ$</td>
<td></td>
</tr>
<tr>
<td>Other cases (adjuncts)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locative</td>
<td>$=bu$</td>
<td></td>
</tr>
<tr>
<td>Instrumental/Comitative</td>
<td>$=buʔ$</td>
<td></td>
</tr>
<tr>
<td>Terminative</td>
<td>$pi$ (preposition)</td>
<td></td>
</tr>
</tbody>
</table>

Kakua does not have different markers for arguments expressed by nouns or pronouns.

In the subsequent sections of this Chapter I provide a description of the characteristics of the coding of grammatical relations and case markers in Kakua.

The expression of subject arguments is described in section §0. Object arguments in Kakua are morphologically marked by case; this is described in §0.
The obligatoriness/optionality of overtly marking object case is determined by Differential Object Marking conditions, this is discussed in §0. Section §0 provides a description of the marking of case for adjuncts, namely locative, comitative/instrumental, and terminative case.

6.1 The expression of subject arguments

As shown in Table 6.1 in the introduction to this chapter, subject arguments (for both transitive and intransitive predicates) in Kakua are not marked by case; instead, subject arguments are indexed on the verb with cross-referencing proclitics that encode number and person values of the subject argument (and gender for 3rd person singular subjects). Subject marking in Kakua is thus done by head-marking (on the verb), while other arguments are dependent-marked (by case).

Table 6.2 below gives a list of Kakua subject proclitics (see Chapter 7 for a detailed description of Kakua’s pronominal system). The proclitic ʔã=, here glossed as ‘3SG.M’, is used for any 3rd singular subject argument that is not feminine; that is to say, the ʔã = proclitic is used as a “default” 3rd singular in general.

Table 6.2. Proclitics used to cross-reference the subject argument on the verb

<table>
<thead>
<tr>
<th>Form</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>wã=</td>
<td>1SG</td>
</tr>
<tr>
<td>ma=</td>
<td>2SG</td>
</tr>
<tr>
<td>ʔã=</td>
<td>3SG.M</td>
</tr>
<tr>
<td>mi=</td>
<td>3SG.F</td>
</tr>
<tr>
<td>fi=</td>
<td>1PL</td>
</tr>
<tr>
<td>ni=</td>
<td>2PL</td>
</tr>
<tr>
<td>R=</td>
<td>3PL</td>
</tr>
</tbody>
</table>

Examples (1)-(5) below illustrate the expression of subject arguments in intransitive and transitive constructions.

In the intransitive clause in (1), the subject argument húptʃi ‘summer’ is cross-referenced on the verb by the proclitic ʔã = ‘3SG’. In the transitive clauses in (2) and (3) the subject argument is a free pronoun and the cross-referencing proclitic on the predicate of the clause agrees in person and number with the subject pronoun. In (4) and (5) the subject is not expressed by a noun phrase, but the proclitic on the verb alone expresses the subject argument of the clause:

1) bi húptʃi ʔã=hɪw̃=na=ka
   now summer 3SG.M = come = DECL = ASS
   ‘Now summer comes’
2) \( jēb = ka \) \( kān = di? \) \( ni = mâw-min \)
   \( 2PL = ASS \) 3SG.M = OBJ 2PL = kill-IMM.FUT
   ‘You all are going to kill him!’

3) \( wēm \) \( tūlī?tī = di? \) \( wā = tah-ap \)
   1SG manioc = OBJ 1SG = plant-PST
   ‘I planted the manioc’

4) \( kān = di? \) \( wīw = hū = di? \) \( ḥ = ḥṃ - ep = ḥ \)
   3SG.M = OBJ caiman = EMPH = OBJ 1PL = eat-PST = REM.PST
   ‘We ate him, the caiman’

5) \( wī = wāptʃjī \) \( wā = wī-bip = na = ka \)
   1SG.POSS = manioc.field 1SG = weed.off-FUT = DECL = ASS
   ‘I will weed off my manioc field’

Subject indexing on the verb, however, can also be omitted under specific semantic and discourse conditions, related to animacy, definiteness, and if the argument can be recuperated from the discourse.

The omission of cross-referencing morphology due to semantic criteria seems to be typologically common (c.f., Givón 1979; Lambrecht 1994, Comrie 1989, Croft 2003, Iemmolo 2011).

In Kakua, if the subject argument of a clause can be recuperated from the discourse context, cross-referencing proclitics are not obligatory, and thus may be omitted.

Example (6) below illustrates one such case. This example is taken from a conversation in which the speaker producing the text was commenting on the time when a group of Nɨkak people were brought to the Kakua village in Wacará in the early 90’s. At the beginning of the conversation it was established that the Nɨkak people came, as illustrated in (6):

6) \( nūṭkâk-wâ \) \( 2ṛ = ḥẉ = na = ḥ \) \( kēt \)
   Nîkak-PL 3PL = come = DECL = REM.PST 3PL
   ḥja = ḅa
   forest = LOC
   ‘the Nɨkak came, they went to the forest’

Following the statement in (6), the speaker moves on to comment on the various different activities that the Nɨkak people did while in Wacará. Note that the first predicate in (6) is marked with the cross-referencing proclitic \( 2ṛ = ‘3PL’ \)
(highlighted in boldface) in agreement with the subject argument nùtkãkwã ‘Nikak’. The second predicate in (6) and the predicates in (7) below, mâw ‘kill’ and nǎwʔ ‘tell’, have the same argument nùtkãkwã ‘Nikak’, but they do not have the expected cross-referencing proclitic ñĩ = ‘3PL’. I have highlighted in boldface these predicates which should be expected to carry the cross-referencing proclitic:

7) nɨɲɨp-wã = di? ʔïka-wã = di? mâw = ta = be
   animal-PL = OBJ animal(chq.dialect)-PL = OBJ kill = INF.EVID = REC.PST
   nǎwʔ = na = be bikpej kannit tfe̱ne-wã
tell = DECL = REC.PST three two-PL.

   mâw-ap = ta = be
   kill-PST = INF.EVID = REC.PST
   ‘They killed animals (it seemed), they told of three, two (animals) they’d killed (it seemed)’

Examples (8)-(9) below provide another illustration in which the subject argument can be recovered from discourse and thus cross-referencing proclitics can be omitted. These examples come from a narrative in which the speaker starts out by establishing that one day he went out to look for food (8); then the speaker continues to tell the different activities that he did while looking for food. Note that once the speaker has established who the main topic of the story is, cross-referencing proclitics are omitted in the other verb constructions (9).

8) hěmʔ- at wiʔi-kan nin tth-fjû-pah- ni = di?
   eat-NMLZ not.exist-NEG this turtle-CL:cover-lay.down-ADJVZ = OBJ
   wâ = ?âb-beh- ep = hî
tfjî-bit = beʔ? siete = jûb
1SG = go.up-go-PST = REM.PST night-other = INTS seven(5P) = EMPH
   ‘one morning when there was no food, right at seven I went up on the hill of the laying turtle’

9) siete = jûb beh-fîʔ = na pi
   seven = EMPH go-be.first = DECL TERM
   ?âb-pkd-dej-beh = na bîd-?âb-beh = na
   go.up-turn.around-go.down-go = DECL search-go.up-go = DECL
   ‘first thing at seven I went up and back down and went up searching’

1 The conventional ethnonym Nîkak here presented as nùtkãkwã, was considered by other speakers as a mispronunciation of the ethnonym nûkkãkwã literally ‘language-person-PL’. 
Related to the recoverability from discourse, subject cross-referencing proclitics are most often omitted when the subject argument is higher in animacy than the object(s) argument(s) of the clause, which is when it is also most likely to be the topic and thus recoverable from discourse. Example (10) below illustrates the description of an event performed by a first person subject \textit{wěm} ‘1SG’ which is higher in animacy (according to Kakua’s animacy scale) than the object argument \textit{wîw} ‘caiman’. The actions of ‘pulling upwards and leave’ expressed by the constructions \textit{waj-ʧej-fěh} ‘pull-turn.upwards-leave’, and \textit{waj-ʔabm-beh-ʤuʔ} ‘pull-go.up-go-toss’ are being performed by the same first person subject, expressed by \textit{wěm} ‘1SG’, onto the patient, expressed by \textit{wîw} ‘caiman’. Note that the expected cross-referencing proclitic \textit{wã} = ‘1SG’ is omitted on both serial verb constructions (highlighted in boldface):

10) \textit{dâ} \textit{wěm} \textit{màw-ap}, \textit{pànit-pèa} \textit{wîw} = \textit{di}?

\begin{itemize}
\item \textit{there!} \textit{1SG} \textit{kill-PST}, \textit{like.this-finish} \textit{caiman} = \textit{OBJ}
\end{itemize}

\begin{itemize}
\item \textit{pull-turn.upwards-leave}
\item \textit{pull-go.up-go-toss = \textit{REM.PST = DIR}}
\end{itemize}

‘There! I killed (it), and so like this (I) pulled the caiman upwards and left it, (I) pulled him up and tossed him’

Another situation in which the cross-referencing proclitics are often omitted is when the predicate is being repeated as a strategy of clause linking in Kakua. Example (11), taken from a conversation, illustrates this. In this example, the speaker is commenting on the time when the Nikak people came to Wacará (mentioned in example (6)-(7) above). Here, the various actions in the event are performed by one and the same participant (the Nikak people), and this is marked with the same subject clitic = \textit{nit} ‘3:1S’; thus, the proclitic \textit{ʔĩ} = ‘3PL’ referring to a previously mentioned subject (Nikak), is omitted. The predicates highlighted in boldface are those for which subject cross-referencing proclitics have been omitted. The ones which include the same subject clitic = \textit{nit} are the ones that are involved in clause linking.

11) \textit{ʔĩ = t-him-ip} = \textit{ta} = \textit{be}; \textit{pàniʔ?} \textit{hi} \textit{W} = \textit{nit} = \textit{hi}

\begin{itemize}
\item \textit{3PL = EVID-exist = INF.EVID = REC.PST} \textit{like this}
\item \textit{come} = \textit{S.S = REM.PST}
\end{itemize}

\begin{itemize}
\item \textit{njẹp} = \textit{di}?
\item \textit{màw-pèa} \textit{njẹp} = \textit{di}?
\item \textit{màw-pèa} = \textit{nit}
\end{itemize}

\begin{itemize}
\item \textit{animal} = \textit{OBJ} \textit{kill-finish}
\item \textit{animal} = \textit{OBJ} \textit{kill-finish} = \textit{S.S}
\end{itemize}

\begin{itemize}
\item \textit{biká} \textit{mî = di}?
\item \textit{ʔĩ = ʧaj-ap} = \textit{be}
\item \textit{hodaʔ-màw-nàʔ}
\end{itemize}

\begin{itemize}
\item \textit{EMPH.TAG} \textit{house} = \textit{OBJ} \textit{3PL = do-PST = REC.PST} \textit{banana-leaf-CL:tree.like}
\end{itemize}

‘They were like this (it seemed). (They) came, (when they) finished hunting, they made a house with banana leaves’
To summarize, subject arguments are never marked with case markers and proclitics on the verb index the subject argument of the clause. These proclitics agree in person and number with the subject argument (and gender for 3rd person singular arguments). Subject cross-reference proclitics are often omitted in the following situations:

(i) The referent of the subject argument has been previously established and can be recuperated from discourse.
(ii) The subject argument is higher in animacy than the other argument(s) of the clause.
(iii) The predicate serves to link to a following clause.

6.2 Object case =diʔ

6.2.0 Introduction

Arguments functioning as objects are in principle marked with the case clitic =diʔ ‘OBJ’. The object case marker may be omitted under specific semantic and discourse conditions, which determine differential object marking in Kakua. These criteria are described in section §0. Arguments marked with =diʔ ‘OBJ’ can express several different semantic roles such as patients, recipients, beneficiaries, maleficiaries and other affected roles. This also implies that the two objects of ditransitive predicates are not differentiated in terms of case marking, all are marked with the case marker =diʔ ‘OBJ’. The following sections give a set of examples illustrating the different semantic roles that can be expressed by the object marker =diʔ. Subsection (§6.2.2) presents object marking on prototypical patients and themes. Section §6.2.3 presents object marking on prototypical recipients, beneficiaires and maleficiaries.

6.2.1 Object marking on prototypical patients and themes

Object arguments with the semantic role of patients are illustrated in examples in (12)-(14) below. The object marker =diʔ ‘OBJ’, can be cliticized to animate nouns (12)-(13) and inanimate nouns (14):

12) kán hiw-wā =diʔ pin =na
   3SG.M jaguar-PL =OBJ chase.away = DECL
   ‘he chased away the jaguars’

13) wā =ʔēn =na =be wēm mēm =diʔ bikā
   1SG =see =DECL =REC.PST 1SG 2SG =OBJ already
   ‘I’ve seen you already’

2 See discussion in §0 below on the semantic requirements of differential object marking, where some object arguments are also not morphologically marked by case.
Argument marking and case marking

14) kân̂ti̤b-bit = diʔ
   3SG.F seed-DIM = OBJ 3SG.F = EVID-gnaw-go-PST = REP.EVID = REM.PST
   ‘She gnawed the little seed, it is said’

   Object arguments in either patient, theme or recipient semantic roles, receive
   the same object case marker = diʔ. Example (15) illustrates a ditransitive clause in
   which both object arguments are expressed by full noun phrases and both are marked
   with the object case clitic = diʔ. One object argument has the semantic role of
   recipient Hâm = diʔ ‘Hamu = OBJ’ and the other has the semantic role of theme,
   ma = nim = diʔ ‘your daughter’:

15) Hâm = diʔ ma = nim = diʔ ma = wiʔ-i
    Hamu = OBJ 2SG-daughter = OBJ 2SG = give-IMP
    ‘give Hamu your daughter’

6.2.2 Object marking on prototypical recipients, beneficiaries, and maleficiaries

Objects with the semantic roles of recipient were already illustrated in
examples (12)-(15) above. Examples (16)-(21) below illustrate more instances of
recipients, in addition to beneficiaries, and maleficiaries in both transitive and
ditransitive clauses.

If both objects of a ditransitive clauses have similar status in terms of animacy,
both usually are marked with the object case marker (see §0 below on differential
object marking criteria). Example (16) illustrates an argument in object function with
the semantic role of recipient. Note also that example (19) shows a source (location)
being marked with the object case marker, this is further discussed below:

16) wèm = be ḱib-wiʔ-ip = be baj-ni-ma = diʔ
    1SG = REC.PST take.out-give-PST = REC.PST be.small-A.NMLZ-CL:FEM = OBJ
    ‘I took and gave (the wasaí seeds) to my little one’

Ditransitive constructions involving objects with the semantic roles of
beneficiaries are given in (17)-(19):

17) kân = diʔ dèw-pèa bab’-ni = diʔ
    3SG.M = OBJ kitchen.work-finish drink-ADJ = OBJ
    dèw ma = t-pèa-bi̤p = na = ka
    kitchen.work 2SG = EVID-finish-FUT = DECL = ASS
    ‘You might end up cooking chicha for him’
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18) \text{wěm} = \text{di?}  \quad \text{galleta} = \text{di?}  \quad \text{ma} = \text{hǐd-ī}  \\
\quad 1\text{SG} = \text{OBJ}  \quad \text{cookie(spanish)} = \text{OBJ}  \quad 2\text{SG} = \text{save-IMP}  \\
\text{‘save a cookie for me!’}

19) \text{kǎn} = \text{di?}  \quad \text{waptʃi} = \text{na} = \text{bù} = \text{di?}  \quad \text{tũj} = \text{di?}  \\
\quad 3\text{SG.F} = \text{OBJ}  \quad \text{manioc.field} = \text{DECL}  = \text{LOC} = \text{OBJ}  \quad \text{manioc} = \text{OBJ}  \\
\quad \text{‘they brought manioc from the manioc field for her and left it there (it is said)’}

Object arguments which have to some extent at least the semantic role of maleficiary are illustrated in (20) and (21) below. Note that the arguments presented here as maleficiaries could also be characterized as a goal location (20), and as patient (21).

20) \text{kět} = \text{di?}  \quad \text{tīb-pēa}  \quad \text{ka} = \text{di?}  \quad \text{tīb}  \\
\quad 3\text{PL} = \text{OBJ}  \quad \text{hurt-finish}  \quad \text{chili.peper} = \text{OBJ}  \quad \text{hurt}  \\
\text{‘finish up spreading hot chili on them’}

21) \text{hiw}  \quad \text{wadǎw} = \text{na} = \text{ka}  \quad \text{wěm} = \text{di?}  \\
\quad \text{shaman.prayer} = \text{DECL}  = \text{ASS}  \quad 1\text{SG} = \text{OBJ}  \\
\text{‘(they’ve) cursed me’ (a curse has been done on me)}

If both object arguments are expressed by noun phrases and both are marked with the object case marker =\text{di?} (independently of their semantic role), the order of constituents is fairly free, and speakers will judge as acceptable various different alternate orders. See the following example, which was recorded from a conversation (22)a and posteriorly rearranged and presented to speakers during elicitation (22)b:

22) a) \text{ɲɨjʔ-idip}  \quad \text{ʔebebʔ = di?}  \quad \text{mi = di?}  \quad \text{wǐʔ}  \\
\quad \text{Opossum-bone}  \quad \text{Venom} = \text{OBJ}  \quad \text{wild.pig} = \text{OBJ}  \quad \text{give}  \\
\text{‘Opossum Bone (njĩʔidip) gives Venom (ʔebebʔ) a wild pig’}

b) \text{ɲĩʔ-iɾidip}  \quad \text{mi = di?}  \quad \text{ʔebebʔ = di?}  \quad \text{wǐʔ}  \\
\quad \text{Opossum-bone}  \quad \text{wild.pig} = \text{OBJ}  \quad \text{Venom} = \text{OBJ}  \quad \text{give}  \\
\text{‘Opossum Bone (ɲĩʔiɾidip) gives Venom (ʔebebʔ) a wild pig’}

Both of these examples were judged by speakers to have the same meaning. Both examples have two possible interpretations: ‘Opossum Bone gives wild pig to Venom’ or ‘Opossum Bone gives Venom to wild pig’, where Opossum Bone and Venom stand for proper names or nick names of two males, and wild pig refers to an animal. This shows that the order of the two objects is free. In the case of example (22), since the reading ‘Opossum Bone gives Venom to wild pig’ is pragmatically
odd, speakers usually interpret this sentence with the reading ‘Opossum Bone gives wild pig to Venom’ even when both readings are acceptable.

Even though the ordering of objects is syntactically free, I have observed when doing elicitation that speakers tend to more readily accept an order in which the participant with a lower/less agentive-like semantic role is placed to the left of the argument with higher/more agentive semantics.

In addition to arguments in patient, theme, recipient, beneficiary, and maleficiary roles, the object marker also occurs on noun phrases with the role of goal (see example (41) below), and source as in (19) above.

6.3 Differential object marking

6.3.0 Introduction

Based partially on earlier work on differential object marking (henceforth DOM)\(^3\), Creissels (2013: 462) offers a list of common conditions relevant for DOM:

- semantic/pragmatic properties of the object argument (animacy, definiteness, specificity, topicality, givenness, etc),
- formal properties of the noun phrase in object function,
- grammatical features of the predicate (aspect, tense, mood),
- semantic types of verbal lexemes.

In the present section I explore the semantic and pragmatic properties of the object argument conditioning DOM in Kakua, showing that object marking is obligatory on noun phrases with human referents (and a few others). Other features given by Creissels in the list above, such as formal properties of the noun phrase, or semantic transitivity of verbal lexemes and their relation with obligatory marking (c.f., Hopper & Thompson 1980:259, 272; von Heusinger & Niyazmetowa 2008), are not considered here, but will need further study. Another factor favouring the overt marking of object case appears to be word order, where OSV order tends to favour the overt marking of case on the object argument (see Chapter 11, §11.1).

The criteria conditioning DOM presented here for Kakua should be further investigated in future research, and many questions remain unanswered for this version of the description on the grammar of Kakua. Issues regarding topicality, for example, and the interaction between definiteness and specificity, call for a detailed study.

This section is subdivided as follows: animacy and DOM in Kakua are presented in §6.3.1-§6.3.6 while section §6.3.7 describes DOM and definiteness. Other discourse related criteria that favours the overt marking of object case in Kakua (namely definiteness) is given in §6.3.7 below. Future research should be

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followed in order to establish other possible correlations between DOM and other areas of the grammar

6.1.1 DOM and animacy

The obligatoriness of object marker in Kakua responds to the animacy of the noun phrase in object function. Object marking is obligatory on all noun phrases with human referents. On other object noun phrases, object marking is obligatory if the object noun phrase is higher on the animacy hierarchy than the subject noun phrase. Otherwise, the overt marking of object case is optional, and may be favored by definiteness.

Object marking and its conditioning by animacy is a relatively common cross-linguistic phenomenon and in fact seems to have been the most widely explored conditioning feature for differential object marking across languages, c.f., Comrie (1989) for references in a broader typological view of DOM; Bossong (1980, 1991, 1998) for Romance, Turkic, some Indo-European languages, and languages of Australia; Blake (2001) for some aspects of DOM in Hindi; England (1996) for Mayan languages; for languages of the Vaupés see Aikhenvald (2003, 2012); Zúñiga (2007), and Epps (2008); Comrie (2008) makes reference to alignment of case marking in a typological perspective; Campbell & Grondona (2012) for languages of the Chaco and the southern cone; and O’Connor & Muysken (2014); Zúñiga (2007), and Epps (2008); Comrie (2008) makes reference to alignment of case marking in a typological perspective; Campbell & Grondona (2012) for languages of the Chaco and the southern cone; and O’Connor & Muysken (2014); Zúñiga (2007), and Epps (2008); Comrie (2008) makes reference to alignment of case marking in a typological perspective; Campbell & Grondona (2012) for languages of the Chaco and the southern cone; and O’Connor & Muysken (2014); Zúñiga (2007), and Epps (2008); Comrie (2008) makes reference to alignment of case marking in a typological perspective; Campbell & Grondona (2012) for languages of the Chaco and the southern cone; and O’Connor & Muysken (2014);

From these studies, we know that the higher the animacy of the object noun within the hierarchy, the more likely it is that its marking will be obligatory. The hierarchy governing this is reproduced below from Silverstein 1976 (see also Comrie 1989, and Croft 1991 for more discussion on animacy hierarchies):

\[ 1 > 2 > 3 > \text{Human} > \text{Animate} > \text{Inanimate} \]

The rationale behind this is that entities lower on the animacy hierarchy are very likely to be patients and thus objects therefore do not need to be overtly marked as such. For instance, nouns referring to human entities are typically agents, whereas inanimate nouns are typically patients. This disambiguates between agents and patients in many cases. However, ambiguity can occur when two (or more) arguments within a clause have potentially the same animacy and thus the possibility to be agents, e.g. when the object argument has a human referent. This is the reason why nouns referring to humans when functioning as the object(s) argument(s) of the clause are obligatorily marked, also in Kakua.

DOM in Kakua conforms to this animacy hierarchy. All noun phrases with human referents, including pronouns and demonstratives with human referents, are obligatorily marked when in object function (demonstratives are obligatorily marked also for a different reason, namely because they are definite, a pragmatic criterion that favours the overt marking of object case; see §6.3.7 below). Nouns referring to

\[ \text{1} \] Comrie (1989) notes also that pronouns do not really relate to animacy, but to referentiality.
a particular small set of animals are also very often (although not obligatorily) marked, and this is determined by the animacy associated with them in Kakua’s cultural and mythological conception. Most other animal terms and animate entities in general are far less often marked (optionally marked). All inanimate terms are also optionally marked (and may be marked depending on definiteness, topicality, or disambiguation from other inanimate argument within the clause, see the description in §6.3.7 below).

Kakua thus has a cut-off point between obligatory and optional object marking on the animacy scale between humans and mythological beings, on one side (including PNs with reference to these), and other animates, and inanimates on the other side, as summarized in the following figure.

Figure 6.1. Kakua animacy and DOM

<table>
<thead>
<tr>
<th>obligatorily marked</th>
<th>optionally marked</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 &gt; 2 &gt; 3 &gt; Humans &gt; mythological beings</td>
<td>&gt; animals &gt; inanimates (includes PNs with inanimate referents)</td>
</tr>
</tbody>
</table>

The following subsections discuss and illustrate object marking of the different noun phrases on the animacy scale presented above. Section §6.3.2 deals with object marking on personal pronouns. Section §6.3.3 presents DOM on nouns with human referents, proper names, and kinship terms. Section §6.3.4 presents DOM on nouns referring to mythological beings. Section §6.3.5 presents object marking on nouns referring to animals. Finally, section §6.3.6 presents DOM on inanimate nouns.

6.3.2. Object marking on personal pronouns

When functioning as objects, all personal pronouns are obligatorily marked with object case. Example (23) illustrates object marking on first person pronouns, examples (24)-(25) on second person and examples (26)-(30) on third person.

23) bi  $ft = di$ ʔên-pêa  ma = beh-é  pi
     now  1PL = OBJ see-finish 2SG = go-IMP TERM

$fwĩ = ʔĩw-atiʔ = na$
1PL = sleep-NMLZ-place = DECL
‘now stop looking at us, go to the place where we slept’
24) kǎn  pûʔba?  him = na = hĩ  mēm = diʔ
   3SG.M  EMPH  exist = DECL = REM.PST  2SG = OBJ

   wâ = nih = na = ka
1SG = say = DECL = ASS
‘He was the only one who survived, I am telling you!’

25) kǎn = ka  ?? = tom‘-mip  mēm = diʔ
3SG.M = ASS  3SG.M = coddle-INM.FUT  2SG = OBJ
‘he is going to coddle you’

26) pan‘  ?? = t-nihî = wit = hĩ  kânt = diʔ
like.this  3SG.M = EVID-say = REP.EVID = REM.PST  3SG.F = OBJ
‘«Like this» he said to her’

27) wěm = ka  kânt = diʔ  wâ = mâw-bip  nih = na = wit = hĩ
1SG = ASS  3SG.M = OBJ  1SG = kill-FUT  say = DECL = REP.EVID = REM.PST
‘I am going to kill him, he said (it is said)’

28) ?? = t-têw-hip = tagâ  kan = diʔ  kânt = diʔ
3SG.M = EVID-shot.darts-DUB = INF  that = OBJ  3SG.M = OBJ
‘he might have shot that (dart) to him (the jaguar)’

29) kët = diʔ  mi = t-nihî = na = wit = hĩ  dë-beh = tigâ
   3PL = OBJ  3SG.F = EVID-say = DECL = REP.EVID = REM.PST  where-go-EMPH

   pi = ŋhî  mi = t-nihî = na = wit = hĩ
   2PL = do  3SG.F = EVID-say = DECL = REP.EVID = REM.PST
‘she asked them, where are you going?’

30) pan‘ = tigâ  jëb = diʔ  ??-ni  dë  wâ = pî-him-ip
and.so = EMPH  3PL = OBJ  be.afraid-ADJVZ  like.this  1SG = HAB-exist-PST
‘because of this I always have fear of you all’

6.3.3 DOM and human referents, proper names, kinship terms

   All Kakua nouns referring to humans, including personal (proper) names and
kin terms, are obligatorily marked for object case when functioning as object
arguments. This is illustrated in examples (31)–(33). Nouns referring to human
beings are in boldface. Example (33) is crucial because it shows obligatory marking
on a noun phrase that is not definite or topical.

31) jad-wîlî  newê = diʔ  mi = ŋhî = na = ka
woman-CL.fem  man = OBJ  3SG.F = bite = DECL = ASS
‘the woman bites the man’
Before illustrating DOM and personal names, it is important to first briefly explain the various Kakua personal names. People usually have a vernacular name which is regarded as a nickname and corresponds to either an animal that represents them, or to the sound that a certain animal makes. Additionally, many people might have a name given by the shaman, known as their ‘blessing name’. Nonetheless, with the cultural changes incurring in Kakua’s present lives, many people have not been given their blessing name; a blessing name is often a compound including cultural terms as well as the name of an animal. All Kakuas are now also given a name in Spanish.

During his or her lifetime, a person can go through several nicknames. The blessing name is used by the shaman when a person is in need of traditional healing prayers or prayers for the prevention of illnesses. Examples of these names are given in Table 6.3.

Table 6.3. Kakua personal names

<table>
<thead>
<tr>
<th>Kakua nickname</th>
<th>Kakua Blessing name</th>
<th>Spanish name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ʔɨbɨʔ</td>
<td>hɨʔ</td>
<td>Laureano</td>
</tr>
<tr>
<td>‘guan’</td>
<td>‘cotton like protector’</td>
<td></td>
</tr>
<tr>
<td>kúnoʔ</td>
<td>hêbebʔ-ма</td>
<td>Gloria</td>
</tr>
<tr>
<td>‘boidae sp. snake’</td>
<td>‘bird.sp.-CL:FEM’</td>
<td></td>
</tr>
<tr>
<td>ʔɨw</td>
<td>mɨw</td>
<td>Hernando</td>
</tr>
<tr>
<td>‘bird sp’</td>
<td>‘tinamidae bird’</td>
<td></td>
</tr>
<tr>
<td>red-chested bird</td>
<td>tinamidae sp.</td>
<td></td>
</tr>
</tbody>
</table>
Examples (34)-(35) below illustrate how personal names when functioning as
object arguments are always obligatorily marked with the object case marker =diʔ:

34) makáʔ=beʔ=diʔ
   nin = dê = na   hîb-têw = na
   bumblebee-AUG = OBJ   this = like.this = DECL   consequence-work = DECL

   fît = ta   tʃjáʔ-ʃwɛh-ep = tagá   kān = na
   1PL = EVID   sit-let-PST = INF.EVID   3SG.M = DECL

   ‘If we would’ve had money, I think we could have had let Bumblebee sit and
   work like this one’

35) mêm=bũ   weʔê=na   jâ=diʔ
   2SG = LOC   speak = DECL   Armadillo = OBJ

   ‘you speak to Armadillo’

Kinship terms, when in object function, are also obligatorily marked for object
case (see Chapter 5 for the description on kin terms and their forms). Examples (36)-(39)
illustrate object marking on kinship terms:

36) dê-wã=diʔ
   hŷ = na
   relative-PL = OBJ   cry = DECL

   ‘(she) cries for (her) relatives’

37) wĩʔ=weʔpeŋ =diʔ
   biʔ = ŋë = diʔ
   1SG.Poss = older.brother = OBJ   big   3SG.M = exist-PST = REM.PST
   love-NMLZ = REM.PST   1SG = OBJ

   ʔâ = hîm-ip = hî

   ‘My brother was greatly loved by me’ (lit. ‘there is big love by me for my
   brother’)

38) ŋâ = nîm=diʔ
   wej = kêt   beh-wej
   3PL = daughter = OBJ   coddle   3PL = go-coddle

   ‘they coddle their daughter’
Argument marking and case marking

39) \( wã=tʃèʔ-j \, \text{ʔ} \, \text{ǎd} \, \text{ʔ} \, \text{=di} \, \text{ʔ} \),
1SG = aunt-women = OBJ
1SG = mother.in.law-PL-women = OBJ

\( wã=hɛp-na-jāf = di'y \),
1SG = be. jealous-PL-women = OBJ

\( wã=nɨ̀w-wã=di'y \),
1SG = grand.parent = PL = OBJ

'I gave food to my aunts, my mothers in law, my jealous women, my grandfathers'

Clan names, when used to refer to human referents, are also obligatorily marked when in object function, as in (40) below. The human referent is a woman from the parakeet clan ‘jedēʔ-wã’ who was taken by the late uncle of the speaker:

40) \( \text{jedēʔ-wã-wili=di'y} \),
parakeet-PL-CL.FEM = OBJ

\( ?â = \text{ta-hijbi} \),
3SG.M = EVID-arrive.there 1PL = uncle-deceased

\( hijbi-nima?=\text{beh} = \text{na} \),
arrive.there-be.deep-go = DECL 3SG.M = EVID-take.out-PST = REM.PST

Obligatory object marking extends to objects with the semantic role of goal and source, when these refer to places of human settlements (41). In this example the proper nouns Wacará and Wacurabá, two indigenous villages in the Vaupés, are object marked with \( =\text{di'y} \) indicating their function as object arguments.

41) \( \text{Patiera} = \text{na} \),
puerto.lleras = DECL

\( \text{hijbi} = \text{na} \),
arrive.there = DECL

\( \text{jegeʔ-waj-at} = \text{di'y} \),
cloth-pull-NMLZ = OBJ

\( \text{buĩʔ} = \text{na} \),
learn = DECL

\( \text{panit} = \text{na} \),
and.so = DECL

\( \text{niʔat} = \text{at} \),
every.body = 1PL

\( \text{Wacará} = \text{di'y} = \text{mán} \),
Wacará = OBJ = ASSOC.PL

\( \text{Leticia, Margarita} \, Wacurabá = \text{di'y} \, bũdiʔ \, Alicia \),
Leticia, Margarita Wacurabá = OBJ FROM Alicia

‘In Puerto Lleras we arrive to learn to sew clothes, and so all of us from Wacará, Leticia, and Margarita, and Alicia from Wacurabá’

6.3.4 Object marking on nouns referring to mythological beings

Mythological beings and deities are treated in the same way as nouns with human referents and thus treated in Kakua grammar just as the terms described in sections §6.3.2 and §6.3.3. Mythological beings, as indicated above, can also include
mythological animal beings. Mythological beings are obligatorily marked for object case =diʔ when functioning as object arguments.

One of Kakua’s deities present in their myths of origin is ʔidkamni. An example of object marking on the name of this particular mythological being is given below:

42) jēb ʔidkamni=diʔ ɲi = ʔēn-ep = wit-hī
2PL proper.name = OBJ 2PL = see-PST = REP.EVID = REM.PST
‘you all saw ʔidkamni, it is said’

Additionally, terms denoting several forest spirits are also treated in the same way as humans with regard to their animacy status and object marking. In (43) speakers are discussing which one of the many stories about the Kuʔʃilu can be told. The Kuʔʃilu is a mysterious forest being who has the ability to take people’s food and destroy their houses without being seen. When the Kuʔʃilu is approaching the villages, he produces a loud horrifying noise that sounds like his name kuʔʃilu, kuʔʃilu, kuʔʃilu, and people flee away before his arrival:

43) mēm hēj =nit kān kuʔʃilu =diʔ
2SG know =INTERR 3SG.M Kuʔʃilu =OBJ
‘Do you know the Kuʔʃilu?’

### 6.3.5 Object marking on nouns referring to animals

Nouns referring to animals are obligatorily object-marked when the object argument is of the same or a higher degree of animacy than the subject. Otherwise object marking on these is optional. Animals can be divided into three sets corresponding to three positions on the animacy hierarchy. A first set includes animals considered to be originally siblings to humans (Table 6.4). A second set includes large and medium sized animals (see short list in Table 6.5). And a third set includes small-sized animals and insects. The first two sets are often marked, while the third set may be said to be truly optionally marked for object case when in object function. Exemplification of object marking on animal terms will be given in the next section.

Kakua’s mythology considers a set of animals to be ancestral siblings to humans (Table 6.4) (see Silverwood-Cope 1972 for a detailed description of Kakua mythology). Therefore, terms referring to these animals could be expected to be obligatorily marked when in object function. However, instances of nouns referring to these ancestral siblings that lack an object case marker when in object function

---

5 The etymology of this name is not transparent, and it appears that many morphological fusions have occurred. A possible interpretation is to translate this name as ‘the old bone person’ from ṭd‘bone’, ƙak ‘person’, mā ‘be.old’, -ni‘AG.NMLZ’. A deity name with similar translations seems to be widespread among the mythologies of many Vaupés groups (c.f., Epps & Stenzel 2013).
are found in the corpus (example (64)), showing that object marking is not obligatory.

Table 6.4 Animal terms with ancestral mythological human qualities

<table>
<thead>
<tr>
<th>Form</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>hiwi</td>
<td>tapir</td>
</tr>
<tr>
<td>hǐw</td>
<td>jaguar</td>
</tr>
<tr>
<td>mǎ́ʔ</td>
<td>anaconda</td>
</tr>
<tr>
<td>wāp</td>
<td>white capuchin monkey</td>
</tr>
<tr>
<td>badaʔ</td>
<td>squirrel</td>
</tr>
<tr>
<td>weʔcp</td>
<td>woolly monkey</td>
</tr>
</tbody>
</table>

Table 6.5 Some large or medium-sized animal terms in Kakua

<table>
<thead>
<tr>
<th>Form</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>wi̯d</td>
<td>sloth bear</td>
</tr>
<tr>
<td>ṃhĩw</td>
<td>dog</td>
</tr>
<tr>
<td>dʒǔ́</td>
<td>armadillo</td>
</tr>
<tr>
<td>kءb</td>
<td>paca (cuniculus paca sp.)</td>
</tr>
<tr>
<td>ẉw</td>
<td>alligator</td>
</tr>
</tbody>
</table>

Examples in (44)-(46) below illustrate instances in which animals from all three sets are represented. In (44) the noun referring to the jaguar in object function is marked. Since the jaguar is lower on the animacy hierarchy than a 2nd person subject, this marking is optional (see §6.3.1). In (45), the noun referring to the monkey is optionally marked, maybe because the monkey could also be the agent of the clause in the particular context in which this example occurred, to avoid ambiguity, or because the monkey is a relatively big animal. Finally, example (46) features a rather small sized animal, which is unlikely to be the agent of the clause, and thus left unmarked (note that my informant stated that it may as well be marked, and still judged a grammatical sentence):

44) kãk ʔã=t-tẽw=hip=tagã hiw=diʔ
    person 3SG.M=EVID-shot.darts=DUB=INF.EVID jaguar=OBJ
    'the person was throwing darts at the jaguar'

45) Marina nãkṇi=diʔ mĩ=m₃w̡=na=ka
    Marina monkey=OBJ 3SG.F=kill=DECL=ASS
    'Marina kills the monkey'
46) hidi = hi  ꜟi = nim = di?  ḟbi
circle = COM  1PL-daughter = OBJ  mosquito

māw-ɲn-p = nā
kill-drive.away-PST = DECL
‘with the shield (you) can drive away the mosquitos from our daughter’

Examples (47)-(49) below illustrate instances where nouns with animals as referents were judged by speakers to have the ability to occur either marked or unmarked for object case, without changing the interpretation of the sentence. The examples with the overt object case marker are shown in the left column, and examples without object case marking are shown in the right column:

47) wid = di?  hēna?  ṭeh = nā
sloth.bear = OBJ  count call = DECL
‘(They) called the sloth bear’

48) kān  th = di?  hēn̄ = nā
3SG.M  turtle = OBJ  eat = DECL
‘he eats the turtle’

49) webit  mhiw = di?
child  dog = OBJ

?ā = māw = nā = kā
3SG.M = kill = DECL = ASS
‘the child hits the dog’

In constructions in which both subject and object arguments have animal referents, object arguments are (facultative) optionally marked. Examples (50)-(52) illustrate instances in which all arguments involved are animals and thus those in object function are marked: Note that jaguar in example (50) is a mythologically important animal, and thus higher on the animacy hierarchy than the object noun phrase (‘dog’), so the object marker in this constellation should be optional. The elicited example (49) above illustrates that in this constellation object marking is indeed optional.

50) hīw  mhiw = di?
jaguar  dog = OBJ

?ā = ḟāk = nā = kā
3SG.M = bite = DECL = ASS
‘The jaguar bites the dog’
Argument marking and case marking

51) *mɪ́baj* *mɪ́hiw = diʔ*  
   *hen* *dog = OBJ*  
   ‘The hen pricks the dog’

52) *hiw = wiʔ = hiᠸ*  
   *kán* *hiw = wā = diʔ*  
   *jaguar = REP.EVID = REM.PST*  
   3SG.M  *jaguar = PL = OBJ*  
   ‘it was the jaguar, he chased away the (other) jaguars’

53) *hiwī = na jibī*  
   *ʔā = ʧɪ̃̂ -p = be*  
   *tapir = DECL.mosquito*  
   3SG.M  *step.on-PST = REC.PST*  
   ‘the tapir stepped on the mosquito’

Kakua traditional stories often include animals appearing as characters of the stories. Their names are obligatorily object-marked when in object function, since the animals in these stories act as humans.6

54) *ma = têw-bip = na = ka*  
   *mɪ́n̩-wā = diʔ*  
   2SG  *work-FUT = DECL = ASS*  
   *frog-PL = OBJ*  
   ‘you will collect frogs’

55) *tį̃ = na = ka*  
   *ʔi = t-nīh = na,*  
   *kán = diʔ*  
   *be.good = DECL = ASS*  
   3PL  *EVID-say*  
   3SG.M  *OBJ*  
   ‘Thank you, the bats said to him, to the armadillo’

56) *kán*  
   *Hānu = diʔ*  
   *ma = nīm = diʔ*  
   *wīʔ-i*  
   3SG.M  *Hamu = OBJ*  
   2SG  *daughter = OBJ*  
   give-IMP  
   ‘Give you daughter to the Hamu, he is going to coddle her’

---

6 Note that example (54) is taken from a Kakua narrative (a mythological story told to young mothers, with indications regarding the care of children), and ‘frogs’ are important mythological beings, considered to be ancient siblings and referred to in the story as their ancient ‘mothers’. Note also that the noun *Hamu* in example (56) refers to a sloth bear named Hamu.
6.3.6 Inanimates

Marking of object case for inanimate noun phrases is optional. Whether they are marked for object case can be predicted to some degree on the basis of their definiteness or possibly other discourse related characteristics (i.e., marking of object case for inanimate noun phrases occurs in some contexts but not others, and when it does occur, it might be required by contexts rather than based on the speaker’s choice). However, in elicitation object case marking on inanimate noun phrases is always judged acceptable by speakers. Thus, the overt marking of object case for inanimate entities in object function is not ungrammatical in Kakua, but commonly omitted. See examples (57)-(58) below where inanimate entities in object function are marked:

57) \( t̊ = d̊? \) māw-\( a = kā \)
firewood = OBJ hit-IMP = ASS
'pick up the fire wood'

58) namā = na ʔî̯w-î̯p = wit = hī kēt = hī
pathway = DECL sleep-PST = REP,EVID = REM,PST 3PL = REM,PST
wāp[tʃ]= di̯?
hut = OBJ
'in the pathway, they slept in a hut’

Compare these to examples (59)-(60) below, where the object argument is inanimate and left unmarked. Speakers will accept either the marked or the unmarked options of these examples:

59) wēm ẘî̯-daʔ-na wāj=tʃāh=na=ka
1SG basket-CL::round-PL weave=do = DECL = ASS
'I weave baskets’

60) kāʔ t̊ bād = na = kā mi=tʃāh
3SG,F firewood cut = DECL = ASS 3SG,F = PROG
'She is cutting firewood’

The object arguments expressed by the inanimate entities huptfi ‘summer’, hodaʔ ‘banana’, and tʃi ‘pineapple’ in example (61) are all marked. This example comes from a conversation, and when asked, speakers agreed that these arguments could have been left unmarked as well without affecting the interpretation of the utterance:
Argument marking and case marking

61) kun=bǔ wěm bi nin húptʃi=diʔ
DIST.DEM = LOC 1SG today/how this year/summer = OBJ

tèw-bed-at=nit, pêa=nit hodaʔ=diʔ wā=mumʔ=bip=na,
work-finish-NMLZ = S.S finish = S.S banana = OBJ 1SG = plant = FUT = DECL,

mümtʔ-pêa=nit tʃɨ̃̂=diʔ wā=mumʔ-bip=na,
plant-finish = S.S pineapple = OBJ 1SG = plant-FUT = DECL

‘over there, this year, when my work is finished I will plant banana, then I will plant pineapple’

To avoid ambiguity, constructions involving the interaction between inanimate referents in two or more argument positions require obligatory object marking. See example (62) below. If in this example the object argument is unmarked, it is judged ambiguous by speakers:

62) mâ-naʔ mî=diʔ ?ā = t-dah-māw = na = ka
tree-CL:tree.like house = OBJ 3SG.M=EVID:break-

‘the tree will probably break the house’ (if it falls onto it)

Examples like the ones in (58) and (61) above (also example (80) below) raise an important question for future research. In these examples (and many others), the object marker occurs with some sort of goal function (like in húptʃi=diʔ ‘year = OBJ’ in example (61), or wāptʃi=diʔ ‘manioc.field = OBJ’ in (58), or location function as in Wacará=diʔ=mǔn ‘wacara = OBJ = ASSOC.PL’ in (80) below). This suggests a possibility of describing the object case marker =diʔ ‘OBJ’ as a marker of non-subject function, rather than strictly an object marker. See also further discussion in §6.4.1 below regarding marking of object case in adjuncts.

6.3.7 DOM and definiteness

Another typologically common condition on DOM is the definiteness of the object argument (c.f., Comrie 1989; Lemmolo 2011), and the related notion of specificity. By definiteness, I mean that the speaker assumes that the hearer can identify the referent, by indefinite reference that he/she does not. Indefinite reference can be further divided into specific reference and nonspecific reference. In the case of specific reference the referent that cannot be identified by the speaker is known to the speaker, in the case of nonspecific reference the referent is not known to the speaker. A hierarchy for increasing likelihood of overt object marking relative to definiteness and specificity is proposed by Croft (2003: 132) (see also Givón 1984: 387):

definite < specific < nonspecific
Note that obligatoriness of object marking in Kakua is determined by animacy (and whether it is a pronoun). In Kakua, the definiteness of a noun phrase increases the likelihood that object case markers are used, but case marking on definite noun phrases is still optional, as examples (47)-(49), among others, show. The following example illustrates object marking on a definite noun phrase, where it is optional according to animacy.

63)  
hiw-wä tib = diʔ hěm = nit = diʔ
jaguar-PL turtle = OBJ eat = S.S = OBJ

ʔä = t-bjibi-huj-up = wit = hĩ
3SG.M = EVID-arrive here-hear-PST = REP.EVID = REM.PST
‘he heard when the jaguars were eating the turtle’ (the one that the man had left behind)

Example (64) below, illustrates the case where the argument hiw ‘jaguar’ has no case marker, showing that in terms of animacy, it is optionally marked. The fact that it is not definite, adds to the likelihood that it is not marked in this example.

64)  
hiw nin-pâʔ hiw paʔ-ɲiʔ nin-pâʔ
jaguar this.M-like.this jaguar be.across-stop this.M-like.this

wä = fwaʔ-ɲiʔ = na = wit = hĩ hiw
find-stop = DECL = REP.EVID = REM.PST jaguar
‘a jaguar like this, on this side a jaguar was standing across, I found a jaguar standing across (the path)’

Inanimate nouns are also more likely to be marked when definite, as in the following examples (definite: (65) vs. indefinite: (66)). Note also that Kakua does not have dedicated definite articles, and that having a pronoun preceding the noun serves as definiteness marking:

65)  
wíʔ = diʔ wã = pib-min = na
resin = OBJ 1SG = cook-INM.FUT = DECL
‘I will cook the resin’ (the one that is ready for the darts)

66)  
tfej-čiʔ = bũ = na tũn = na = třahûp
afternoon = EMPH = DECL turn.dark = DECL = PROG
give-PST = REP.EVID = REM.PST cat-NMLZ
‘In the afternoon when it was getting dark, they gave away (some) food’
Demonstratives are a type of expression which is always definite. They are thus often marked for object case when in object argument function. Examples are given in (67)-(70):

67) \[ \text{nin} = \text{di?} = \text{ka} \quad \text{pa} \quad \text{mëm} = \text{di?} \quad \text{fw}i\text{t}-?\text{h}i\text{t}-\text{h}u\text{j}-\text{up} \]
   \[ \text{here} = \text{OBJ} = \text{ASS} \quad \text{dad} \quad 2\text{SG} = \text{OBJ} \quad \text{be.first-take.out-know-PST} \]
   ‘right here dad, you have been asked first’

68) \[ \text{panit} \quad \text{hiw} = \text{na} = \text{wit} = \text{hi} \]
   \[ \text{and.so} \quad \text{arrive} = \text{DECL} = \text{REP.EVID} = \text{REM.PST} \]
   \[ \text{kun-dë = di?} \quad \text{there.far-like = OBJ} \]
   \[ \text{hiw} = \text{ni?} \quad \text{arrive-stop} \]
   ‘and so, (they) arrived and stopped like (about) there’

69) \[ \text{kan} = \text{di?} \quad \text{wëm} \quad \text{kâk-him-ni} \]
   \[ \text{there} = \text{OBJ} \quad 1\text{SG} \quad \text{person-exist-ADJVZ} \]
   ‘I was born there’

70) \[ \text{bìk} \quad \text{naw}-\text{ni} \quad \text{bìk = di?}, \quad \text{bìk} \quad \text{hêpa?-wèe-ni} \]
   \[ \text{one} \quad \text{tell-A.NMLZ} \quad \text{one = OBJ}, \quad \text{one reply-convert-A.NMLZ} \]
   ‘one is the teller to the other one, one is the replier’

The question of the impact of specificity on object marking in Kakua needs to be resolved in future research.

6.4 Case marking on adjuncts

6.4.0 Case markers for adjuncts

The forms and semantic roles of adjuncts in Kakua are given in Table 6.5 below. Note that six semantic roles are coded by case markers for adjuncts: Locative, Comitative/Instrumental (both coded by \( =\text{hi?} \)), and Terminative:

<table>
<thead>
<tr>
<th>Case markers (on nouns and pronouns)</th>
<th>Semantic Roles expressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>( =\text{bi} )</td>
<td>Location, goal, source</td>
</tr>
<tr>
<td>( =\text{hi?} )</td>
<td>Comitative, Instrument</td>
</tr>
<tr>
<td>( \text{pi} ) (preposition)</td>
<td>Directional and Temporal Terminative Location</td>
</tr>
</tbody>
</table>

Table 6.5. Case markers for adjuncts
In some cases, the object case marker =diʔ is used in addition to another case marker on adjuncts, such as the instrument in example (71):

71) webit ʔʔʔ-naʔa =hɪʔ =diʔ  bûʔjup =diʔ
  child  blow.gun-CL::tree.like =COM =OBJ  humming.bird =OBJ

mâw =na =ka ʔĩ=tʃãhãp
kill =DECL =ASS 3PL =PROG
‘The children are killing humming birds with the blow gun’

The object case marker =diʔ can also be used in addition to the locative case marker, as in (72):

72) hiw ʔĩ=ɲap =na =be nin =bũ =diʔ =hɛʔ
  jaguar 3SG.M =jump =DECL =REC.PST  this =LOC =OBJ =INTS
‘The jaguar jumped right here’

The conditions under which this double marking of case occurs remain unclear.

The following sections describe the use of the locative case marker (§6.4.2) the comitative and instrumental case marker (§6.4.3) and the terminative preposition (§6.4.4).

6.4.1 Locatives

The locative marker =bũ is used for static location, goal, and source. The object marker =diʔ can additionally appear with the locative constituent (see example (72) above). The examples (73)-(78) below illustrate the use of the locative case marker for allative ‘to/into’, as in (73)-(75), ablative ‘from’ as in (76), inessive ‘in’, and adessive ‘on’ as in examples (77) and (78):

73) hûa =bũ  keh ma=mâw =diʔ =ka beh-ɛ
down.river =LOC  fish 2SG =kill =OBJ =ASS  go-IMP
‘go fish downriver!’  (lit. go downriver to kill fish)

74) ?Ina  wâptʃʔiʔ =bũ  mi =beh-bip =na =ka
  Ina  manioc.field =LOC  3SG.F =go-FUT =DECL =ASS
‘Ina will go to the manioc field’

75) Mitû =bũ  fi=beh-ep =hɪ
  Mitû =LOC 1PL =go-PST =REM.PST
‘We left to Mitû’
6.4.2 Comitative and instrumental

Expressions involving nominals in comitative or instrumental roles are coded with the clitic =hĩʔ ~ =hiʔ. The difference between nominals in comitative versus nominals in instrumental role in Kakua corresponds basically to the distinction of whether the action is being performed together with a usually animate entity, versus if the action is being performed using/by means of another entity (usually inanimate). That is to say, a comitative interpretation of the morpheme clitic =hĩʔ occurs when a noun (usually animate) participates in an action together with the subject of the clause: subject together with comitative performs an action.

The instrumental interpretation of the noun marked with =hĩʔ occurs when something is being used by an Agent argument to perform an action: Action performed with/using instrumental.

The syntactic structure of clauses involving comitative or instrumental nominals do not differ one from the other.

Examples (79)-(80) illustrate cases of noun phrases in the comitative role. Note that in these examples the object marker =diʔ is not used, showing that its occurrence on comitative noun phrases is not governed by the same principles as DOM, according to which they should be marked for being human.
A Grammar of Kakua

79) ʔIma  mih = bū  Te = ḫī?  mi = beh = na = ka
Marina  river = LOC  Esteban = COM  3SG.F = go = DECL = ASS
‘Marina goes to the river with Esteban’ (together with)

80)  Patiera = na  hūbī = na  niʔat  ḫī?
Puerto.Yeras = DECL  arrive.there = DECL  all 1PL

Wacará = dī? = mūn,  kēt = ḫī?  Leticia = ḫī?,  Magarita = ḫī?
Wacará = OBJ = ASSOC.PL  3PL = COM  Leticia = COM  Magarita = COM

Wacurabā = ḫī?,  būdī?  Alicia = ḫī?
Wacurabā = COM  people.from,  Alicia = COM

‘We all went to Puerto Yeras, all of us from Wacará, with them, with Leticia, with Margarita, with those people from Wacurabā, with Alicia[...]

Example in (81) contains a noun phrase that can be interpreted perhaps as a non-prototypical comitative case:

81)  win-būg  pāʔ-at = ḫī?  win  meʔèp = ḫī?  ḫīg = nīt
die-fall  be.fever-NMLZ = COM  die  blood = COM  vomit = S.S

win
die
‘(they) fall dead, with fever (they) die, (they) vomit with blood and die’

Noun phrases with inanimate referents are prototypical instruments. Examples (82)-(84) below show instances of adjuncts in the instrumental role marked with = ḫī?

82)  nin  hūbī = ḫī?  ลำ = nīm = dī?  jībī
DEM  round = INST  1PL = daughter = OBJ  mosquito

ma = māw-pūnī = na
2SG = kill-chase.away = DECL
‘you can chase away the mosquitos from our daughter, with this shield (rounded thing)

83)  wūʔ = ḫī?  tūd-jak  ma = jūʔ-ū
basket = INST  broom.away-slash  2SG = toss.away-IMP
‘sweep away and toss away with the basket’
Argument marking and case marking

84) \( f\text{w}t = \text{bit} \quad \text{yeg}e\text{ʔ} = \text{di} \quad f\text{w}t = \text{t}w = \text{na} \)
1PL = also clothes = OBJ 1PL = work = DECL

\[ \text{makina} = \text{hi} \]
machine(Spanish) = INST

"We also worked clothing (sew clothes) with the (sewing) machine"

It is very likely that using the same morpheme to code nouns in comitative and instrumental roles, responds to an iconic motivation of the close semantic relatedness between these two concepts. Example (85) below illustrates an instance that can be interpreted as both instrumental or comitative. It is extracted from a conversation, where the speaker is telling about his hunting trip, during which he found an alligator and chopped off the tail of the animal. In a joking manner he tells his interlocutor that the tip of the alligator (full of leeches) was tasty to eat together with manioc bread, or by using the manioc bread to push up the leeches on the alligator’s tail. Both readings where suggested by the speaker who helped with the translation of this text:

85) \( \text{ʔãj} = \text{pîh} \quad \text{jîp-} = \text{di} \quad \text{hěm} = \text{di} \quad \text{hi} \quad \text{bik-lâ} \)
3SG.M.POSS = tail be.on.tip-NMLZ = OBJ eat-NMLZ = FRUST = COM/INST

"the tip of his tail was good to eat with manioc bread‘

6.4.3 Terminative

Kakua codes terminative locatives with the preposition \( pî \) ‘TERM’. This morpheme is particular in its semantics and its syntax. Semantically, it has a very narrow meaning, similar to English up until. Terminatives are used to refer to a specific spatial or temporal location which is situated within a space or time that has a further continuation. For example, "we will walk up until the house", implying that there is a path that goes beyond the house, but that our journey will go only up until where the house is:

86) \( \text{ma} = \text{beh-} \quad \text{pi} \quad f\text{w}t = \text{hi} = \text{na} \)
2SG = go-IMP TERM 1PL = sleep-NMLZ-PLACE = DECL

‘Go (back) to our night place’
Similarly, for temporal senses, it can be used to refer to a specific time during a specific event, such as *I slept up until 7am*, implying that the timeframe of the story continues, but the sleeping was terminated at 7am. The example is given in (89) below:

89) \[ pɪ \quad jɪʔ-tak=jǔb \quad puʔba \]
\[ \text{TERM} \quad \text{front.yard-middle} = \text{EMPH} \quad \text{EMPHZ} \quad \text{TAG} \]
\[ ʔã=t-hɨw’ = wɪt = hĩ \]
\[ 3\text{SG}.\text{M} = \text{EVID}-\text{come} = \text{REP.EVID} = \text{REM.PST} \]
‘He came up to right (to) the middle of the front yard (it is said)’

\[ \]
\[ ʔã=t-hɨw’ = hɪp \quad pɪ \quad kɐn=na \]
\[ 3\text{SG} = \text{EVID}-\text{come} = \text{REM.PST} \quad \text{TERM} \quad \text{PROX.DEM} = \text{DECL} \]
‘he (the grandfather) came up to there’

(I slept) up until 7am, at seven really, I went first thing in the morning up until the Sloth Hill’

Syntactically, the terminative marker is unique in that it functions as a preposition, while no other prepositions are attested in Kakua.
Chapter 7

Elements of the noun phrase

7.0 Introduction

This chapter describes other words from closed classes that occur in the noun phrase. In particular, this chapter deals with the description of pronouns, demonstratives, questions words, numerals and quantifiers in Kakua, and further additional elements of the noun phrase.

The noun phrase in Kakua is built according to the template in (1) below. Demonstratives (DEM), lexical possessors (POSS), pronouns (PN) including possessive and interrogative pronouns, numerals (NUM) and quantifiers (Quant) all precede the head noun. A head noun may be a bare noun root (see Chapter 4), a compound of noun roots (see Chapter 5), or another derived noun (e.g., a nominalized verb stem, or a noun stem taking some derivational morphology). Any of the elements shown in (1) below with the exception of modifiers can also function as a noun phrase on its own. Modifiers of the head noun (adjectives or nominalized verbs) may precede or follow the head noun (see discussion on adjectives in Chapter 3, §3.2.1).

1) \[ \text{NP} \rightarrow (\text{Dem}) (\text{POSS/PN}) (\text{Num/Quant}) (\text{modifiers}) (\text{POSS=})N (\text{modifiers}) \]

Each of the elements of the noun phrase shown in (1) above occurs only once within the noun phrase. This chapter is organized as follows. Section §7.1 provides a description of personal pronouns. Interrogative pronouns and question words are dealt with in Section §7.2, and the demonstrative pronouns are described in §7.3. The description of numerals (§7.4) and quantifiers (§7.5) follows. The last section on this chapter, §7.6, presents the emphasis marker \(=b\tilde{u}\) as another element of the noun phrase. For the description of the coordination of noun phrases see Chapter 13.

7.1 Personal pronouns

The Kakua pronominal system has three different sets of forms: free forms, bound pronouns (that serve to express possessive relations as described in §5.3, or to encode cross-reference to the subject argument as described in Chapter 8), and possessive pronouns (occurring in alienable possession, described in §5.3). Table 7.1 summarizes the forms and functions of the three sets of pronouns in Kakua.
Table 7.1 Personal pronouns

<table>
<thead>
<tr>
<th>Function</th>
<th>Free forms</th>
<th>Bound forms</th>
<th>Possessive pronouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>wěm</td>
<td>wã=</td>
<td>wĩʔ= (wã= + -ĩʔ)</td>
</tr>
<tr>
<td>2SG</td>
<td>měm</td>
<td>ma=</td>
<td>mĩʔ= (ma= + -ĩʔ)</td>
</tr>
<tr>
<td>3SG.M</td>
<td>kǎn</td>
<td>?ã=</td>
<td>?ãʔf = (?ã= + -ĩʔ)</td>
</tr>
<tr>
<td>3SG.F</td>
<td>kǎnʔ</td>
<td>mĩ=</td>
<td>mĩʔ= (mĩ= + -ĩʔ)</td>
</tr>
<tr>
<td>1PL</td>
<td>fʔIt</td>
<td>fĩ=</td>
<td>fĩʔ = (fĩ= + -ĩʔ)</td>
</tr>
<tr>
<td>2PL</td>
<td>jěbʔn</td>
<td>ni=</td>
<td>niʔ = (ni = + -ĩʔ)</td>
</tr>
<tr>
<td>3PL</td>
<td>kět</td>
<td>?ĩ=</td>
<td>?ĩʔ = (?ĩ= + -ĩʔ)</td>
</tr>
</tbody>
</table>

As can be seen in Table 7.1, Kakua pronouns encode person and number. Gender is specified only for the 3rd person singular forms. The 3rd person singular pronoun kǎn '3SG.M' is obviously related to the proximate demonstrative form kan 'PROX.DEM'. The 3rd person singular pronoun kǎn '3SG.M', can in principle be used for inanimate referents ('this/it'), and animate male (or unspecified for gender) referents ('he') (it is a non-feminine form, see below) and is glossed in the texts as '3SG.M'. For inanimate 3rd person singular referents, the demonstrative form kan is used most often. Therefore, kon is glossed as either 'PROX.DEM' or '3SG.M' according to the context. If encoding deixis is its main function, then it is glossed as 'PROX.DEM', whereas if in pronominal function it refers to an inanimate referent, it is glossed as '3SG.M'. Section §7.3 below describes the forms and functions of demonstratives in Kakua.

Gender distinctions in the forms for 3rd singular pronouns are best understood as feminine versus non-feminine.¹ The forms kǎn and mĩ = strictly encode female gender for 3rd person singular, while for all other referents, the pronouns kǎn '3SG.M' and ?ã= '3SG.M' are used even when the gender of the referent is not strictly male, or is unspecified. All of the pronominal forms shown in Table 7.1 above, can be further specified by feminine gender. This is done by attaching the feminine suffix classifier -wili:

2) wěm-wili
   1SG-CL:fem
   'I (female)'

¹ For the sake of consistency, kǎn, ?ã= and ?ãʔf =, are glossed as '3SG.M' throughout this work, even when the referent is not male.
3)  \textit{kēt-wilĭ-wā}  \\
3\text{PL.-CL.:fem-PL.AN}  \\
‘you all (females)’

The free forms of Kakua pronouns can function as arguments of verbs, just as regular nouns do.

4)  \textit{kān = wit = hĩ}  \\
\text{3SG.M = REP.EVID = REM.PST}  \\
\text{3SG.M}  \\
\text{jaguar-PL.AN = OBJ}

\textit{ɲɨn-ni}  \\
\text{chase.away-A.NMLZ}  \\
‘he was the one who chased away the jaguars’ (he was the jaguar chaser)

The bound pronouns (proclitics) are normally bound to a head noun or verb. When bound to verbs, the proclitics serve as cross-references to the subject argument of the clause (see Chapter 6 on argument marking in Kakua).

The set of pronouns that are called “bound pronouns” can also occur without being attached to a head noun or verb, but in this case the bound pronoun must always be followed by another elictic to form a phonological word. The contexts motivating the constructions of the pronouns without a head noun or verb need to be explored in future research.

An example of the proclitic occurring with additional morphology only, lacking a head noun or verb, is illustrated in (5) below:

5)  \textit{f̄ ib = be}  \\
\text{mā-na?}  \\
\text{return = REC.PST}  \\
\text{tree-CL.tree}  \\
\text{3SG.M}  \\
\text{3SG.M = REC.PST}  \\
\text{caiman}

\text{wā = be = ćen = tā = tik}  \\
\text{1SG = recognize = INF.EVID = INTS}  \\
\text{3SG.M = REC.PST}  \\
\text{caiman}  \\
‘I came back, (with) a stick I recognized the caiman, he must have been a caiman!’

Unlike the free pronouns, the forms of the bound pronouns do not have lexical tone specification; instead, their tone value is assigned by the elements in the surrounding environment to which the proclitics are attached (usually the tonal value is assigned by the roots to which the pronoun is clitized). In cases such as the one presented in (5) above, where the bound pronoun lacks a head, and instead it occurs only with other morphology, which are themselves also toneless, the entire set of bound morphemes is realized with a low tone.

When pronominal forms function as subjects, objects, or comitative or locative adjuncts they take case markers indicating their function within the clause:
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6) \( \text{kān}^{\text{f}} \quad \text{kan} = \text{di} \quad \text{mi} = \text{t-hēm}^{\text{f}} - \text{ep} = \text{wit} = \text{be} \)
\( 3\text{SG.F} \quad 3\text{SG.M} = \text{OBJ} \quad 3\text{SG.F} = \text{EVID-eat-PST} = \text{REP.EVID} = \text{REC.PST} \)

‘She ate it’ (it is said)

As described in Chapter 5, (bound) pronouns can be used to indicate possessive relationships. Inalienably possessed nouns take bound pronouns, while alienably and inherently possessed nouns take the possessive (bound) pronouns (see Chapter 5, §5.3, for description of possession). As mentioned in Chapter 5 (§5.3), the possessive pronominal forms in Kakua are derived from a combination of the bound forms of the pronouns with the possessor marker –įʔ. This is shown in Table 7.1 above in the column of possessive pronouns. An example of an alienably possessed noun marked with the possessive bound pronoun is given in example (7) below:

7) \( \text{ʔãj}^{\text{f}} = \text{namā = bū} \quad \text{kān} \quad \text{kāk = bit} \)
\( 3\text{SG.M.POSS} = \text{path} = \text{LOC} \quad 3\text{SG.M} \quad \text{person} = \text{ALSO} \)

\( \text{ʔãj}^{\text{f}} = \text{namā = bū} \)
\( 3\text{SG.M.POSS} = \text{path} = \text{LOC} \)

‘[they parted…], he (the armadillo) on his way, and the person also on his way’

Free pronominal forms do not have variants when used as possessive forms.

Kakua pronouns can have anaphoric functions, referring back to a previously mentioned noun or noun phrase, as discussed in Chapter 6 and Chapter 11 (§11.2 on subject alignment).

In Kakua narratives, usually a (3SG.M) pronoun is sufficient to refer to the main participant of the story, and the expression of the participant as a lexical noun is not necessary. Example (8) below illustrates a situation in which two participants of the narrated event are being referred to by using 3SG.M pronouns only:

8) \( \text{kān} \quad \text{kān} = \text{di} \quad \text{ʔā = t-tev-hip = tagā} \)
\( 3\text{SG.M} \quad 3\text{SG.M} = \text{OBJ} \quad 3\text{SG.M} = \text{EVID-shot.darts-DUB} = \text{INF.EVID} \)

‘he (the person) shot darts to him (the jaguar)’

Like the demonstrative form kan (see above), the third person pronoun can also be used for generic reference to inanimate entities in general, or abstract concepts like thoughts, feelings, or ideas. The bound pronoun highlighted in bold in example (9), anaphorically refers to the derived noun hīgaʔ-at be.sad-NMLZ ‘sadness’. It can also be translated into ‘it (the sadness)’. Example (10) illustrates an instance of the pronoun kān used for generic anaphoric reference.
9) \( \text{bid} \) \( \text{hi}_\text{g} \text{a}^2 \text{at} = \text{h} \text{i} \) \( \text{wem} = \text{di} \)  
big be.sad-NMLZ = REM.PST 1SG = OBJ  
\( \text{ʔa} = \text{him-ip} = \text{h} \text{i} \)  
\( 3SG.M \) = exist-PST = REM.PST  
‘to me (there) was too much sadness’ (I was very sad).

10) \( \text{nih-n} \text{aw} = \text{na} \) \( \text{k} \text{a} \text{n} = \text{di} \text{ʔ} = \text{wit} \)  
say-tell = DECL \( 3SG.M \) = OBJ = REP.EVID  
‘(she) talked about it (him, that)’

### 7.2 Interrogative pronouns and question words

The interrogative pronouns in Kakua are built from the element \( de^- \), to which other morphological material is added. The interrogative pronominal forms are given in Table 7.2 below:

<table>
<thead>
<tr>
<th>Gloss</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>what</td>
<td>( \text{dede} )</td>
</tr>
<tr>
<td>which</td>
<td>( \text{dēʔ} )</td>
</tr>
<tr>
<td>who</td>
<td>( \text{dēʔe} )</td>
</tr>
</tbody>
</table>

These pronouns can be used as arguments of clauses, as shown in the following examples:

11) \( \text{dēʔe} = \text{ti} = \text{be} \) \( \text{mem} = \text{di} \) \( \text{ʔa} = t-i \text{ʔe} \)  
who = INTS = REC.PST 2SG = OBJ 3SG.M = EVID-see  
‘who saw you?’

12) \( \text{dede} = \text{ti} \) \( \text{jem} = \text{di} \)  
what = EMPH sun = OBJ  
‘what time is it?’

13) \( \text{dēʔe} = \text{ti} \) \( \text{w} \text{e} \text{ʔe}-\text{ni} \) \( \text{pīna} \) \( \text{nih} = \text{na} = \text{ka} \) \( \text{wā} = t-fähāp \)  
who = INTS talk-A.NMLZ POT say = DECL = ASS 1SG = PROG  
‘I’m saying, who is going to talk?’

An interrogative mood marker \( = \text{nit} \) may optionally be cliticized to the verb of the clause, as found in (14)-(16) below.

14) \( \text{dede} = \text{ti} \) \( \text{kān} \) \( \text{pant} \) \( \text{nih} = \text{nit} \)  
who = EMPH 3SG.M like.this say = INTERR  
‘who is the one saying like this?’
Interrogative pronouns, as is the case for the rest of the pronominal forms in Kakua, do not have different forms when functioning as subject, object, comitative, locative, etc. Thus, if functioning as an object argument, for example, the interrogative pronoun does not change its basic form and instead it optionally takes the object case marker, compare examples (15) and (16) with (17) and (18) below:

17) \(dɛʔ\) \(e=di\) \(ʔ\) \(=ti=be\) \(ma=ʔɛn\)
   who=OBJ=INTS=REC.PST 2SG=see
   'Whom did you see?'

18) \(dɛʔ\) \(e-w \ɨ ̃̌ \=di \=ti \=be\) \(ma=ʔɛn\)
   who-son=OBJ=INTS=REC.PST 2SG=see
   'Whose son did you see?'

Interrogative pronouns can take the possessive suffix -\(\ɨ\) to encode possessive relations, as in (19), or be compounded to a noun stem as in (20) below. Note that in cases such as that illustrated in example (20) below, the interrogative pronoun is not considered a procliticized form (as with the proclitic personal pronouns) because, unlike proclitic personal pronouns (possessive personal pronouns), the interrogative pronoun can stand on its own, like other interrogative words (i.e., can occur syntactically unbound, like example (23) below where the interrogative \(dɛ\) ‘where’ occurs on its own. Most commonly, however, the interrogative pronouns occur together with intensifiers or emphasis markers):

19) \(dɛʔ\) \(e=ti\) \(tigā\) \(nin-mɨ-hĩw\)
   who-POSS EMPH this.m-house-jaguar
   'Whose dog is this one right here?'

20) \(dɛʔ\) \(e-wɨ\) \(=di\) \(=ti\) \(=be\) \(ma=ʔɛn\)
   who-son=OBJ=INTS=REC.PST 2SG=see
   'Whose son did you see?'

Kakua has a set of forms that are homophonous to the element \(dɛ\)- present in the interrogative forms: the inferred future evidentiality enclitic = \(dɛ\) ‘INF.FUT.EVID’; and the noun \(dɛ\) ‘relative’ (‘person who is related). The extent to which these forms may or may not be related is unknown.
In addition to the interrogative pronouns, Kakua has a set of question words that are also built from the element *de-* These question words are given in Table 7.3 below:

Table 7.3 Question words

<table>
<thead>
<tr>
<th>Gloss</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>how</td>
<td><em>dëd = pa?</em> (how = be.like)</td>
</tr>
<tr>
<td>where/ when</td>
<td><em>dë = bǔ</em> ‘how many/when/where’</td>
</tr>
<tr>
<td>why</td>
<td><em>de = pa? = ni? = na</em> (can be translated roughly as ‘how exactly?’)</td>
</tr>
</tbody>
</table>

Question words, including interrogative pronouns, occur always clause initially. Note that in example (22) the particle *pa?ni?* ‘and so’ presumably functions as a clause linker, with the interrogative pronoun initiating a new clause.

21)  
*dëd = paʔ*  
\text{fǐt} \quad \text{fǐ = ṕēʔ = hĩ}  
how = be.like  
\text{1PL} \quad \text{1PL = be.first = REM.PST}  
‘how were we like before?’

22) Q:  
*dëd = paʔ*  
\text{bépaʔ}  
how = be.like  
answer  
‘how (am I going to) answer?’

A:  
*paʔniʔ*  
*dëd = paʔ = tī*  
\text{ʔā = t-him = hĩ} \quad \text{mēm = bǔ}  
and.so \quad \text{how = be.like = INTS} \quad \text{3SG.M = EVID-exist = REM.PST} \quad \text{2SG = EMPH}  
\text{hépaʔ-ā}  
answer-IMP  
‘«So, what was he like?», you answer like this’

Adverbial question words relating to direction, or location, are illustrated below in (23) and (24):

23)  
*dë*  
\text{beh = tīgā} \quad \text{ma = tāh} \quad \text{mēm}  
where \quad \text{go = EMPH} \quad \text{2SG = do} \quad \text{2SG}  
\text{ʔā = t-nih = na = wīt = hĩ}  
\text{3SG.M = EVID-say = DECL = REP.EVID = REM.PST}  
‘where are you going?, he asked’
A Grammar of Kakua

24) a.) \( w\tilde{a} = w\tilde{i} \)  
   \( \text{tib-ip} = ji?i = na = ka \)  
   1SG = son  
   hurt-PST = FRUST = DECL = ASS

\( \tilde{a} = t-nih = na = wit = hi \)  
3SG.M = EVID-say = DECL = REP.EVID = REM.PST

‘my son got an illness’, he said (the chief of bats)’

b.) \( d\tilde{e} = j\tilde{u}b \)  
   \( nih = na = wit = hi \)  
   \( \text{where} = \text{EMPH} \)  
   \( \text{say} = \text{DECL} = \text{REP.EVID} = \text{REM.PST} \)

‘where (is the illness)?’ he said (asked the shaman)’

Adverbial question words relating to time are illustrated in (25) and (26):

25) \( d\tilde{e} = b\tilde{u} = t? \)  
   \( \text{koko} \)  
   \( \tilde{a} = t-beh \)  
   \( \text{when} = \text{LOC} = \text{INTS} \)  
   \( \text{coco} \)  
   \( 3\text{SG.M} = \text{EVID-go} \)

‘when/where did coco leave?’

26) \( ?i = t-him-ip = \text{wit} = \text{hi} \)  
   \( d\tilde{e} = b\tilde{u} \)  
   \( 3\text{PL.} = \text{EVID-exist-PST} = \text{REP.EVID} = \text{REM.PST} \)  
   \( \text{how.many} = \text{EMPH} \)

\( bi? \)  
\( \text{wid-be?} \)

\( \text{other} \)  
\( \text{moon-AUG} \)

‘they stayed there for, hmmm… how many?, another month?’

As seen in this section, Kakua interrogative pronouns and question words are built on a basic \( \text{de}- \) form. Semantically, both interrogative pronouns and question words can be considered to fall into one class of interrogative words. Functionally, however, these words form two different sets: the set of interrogative words that have pronominal function, and the set of interrogative words with adverbial functions.
7.3 Demonstratives

Kakua has a demonstrative system which makes three distinctions: proximate, distal, and immediate proximate. The forms of demonstratives are given in Table 7.4 below:

Table 7.4 Kakua demonstrative pronouns

<table>
<thead>
<tr>
<th>Function</th>
<th>Form Demonstrative Pronoun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proximate ‘there/this’</td>
<td>kan</td>
</tr>
<tr>
<td>Distal ‘that’</td>
<td>kun ~ kǔn ~ nun</td>
</tr>
<tr>
<td>Immediate proximate</td>
<td></td>
</tr>
<tr>
<td>masculine ‘this right here’</td>
<td>nǐn</td>
</tr>
<tr>
<td>feminine ‘this right here’</td>
<td>nūr</td>
</tr>
</tbody>
</table>

The proximate and distal demonstrative forms, kan and kun respectively, can be specified for gender if necessary (unlike immediate proximate forms, which are already inflected for feminine gender in their basic form). In such cases, the classifier -wili may be suffixed to the demonstrative form as follows: kan-wili ‘this (female)’, and kun-wili ‘that (female)’.

Additionally, the 3rd person singular feminine personal pronoun, kān ‘3SG.F’, can be used as a demonstrative when referring to female animate beings that are (spatially) proximate to the speaker, and in such cases it is preferred over kan-wili.

As mentioned in §7.1 above regarding the 3rd person singular pronoun kān ‘3SG.M’, both kān ‘3SG.M’ and kan ‘PROX.DEM’ can be used with the same deictic meaning. It is also possible that the proximate demonstrative form kan was the historical source of the pronominal forms kān ‘3SG.M’ and kān ‘3SG.F’ (following a crosslinguistically common development of 3rd person pronouns from demonstrative), but the pronominal forms include further phonological specifications, which suggests that a reverse development might also be possible.

The proximate demonstrative kan ‘PROX.DEM’ is used to refer to objects which are spatially close to speaker, to the hearer or to both. It is not used for objects immediately next to the speaker, for which the immediate proximate demonstrative, nin or ninʔ, is used. The proximate demonstrative is also used to refer to something that has already been mentioned in the discourse, e.g. ‘the one there’, or ‘this aforementioned’ object. The proximate demonstrative can be translated as English ‘this’ or ‘there’, and is glossed as such where appropriate:

27) kan = jūb = pāʔba
    there = EMPHZ:be.true = EMPH
‘right there, all right!’
28) \(já = buh = na \) \(kan = na \) \(?â = t-tomá = behe = tfâ?\)
make.noise = DIR = DECL there = DECL 3SG.M = EVID-sway-go = PROG
'making noise there, he was swaying'

29) \(kan-man? \) \(?â = t-têw = na = wit = hî\)
\(\text{there-side} \) 3SG.M = EVID-work-stop = DECL = REP.EVID = REM.PST
'he was standing on this side'

The proximate demonstrative form is a common variant of the third person
singular pronouns \(kán\) 3SG.M' and \(kâr\)’3SG.F’, and can function in any grammatical
role in a clause: subject, object, or adjunct:

30) \(kan = di?\) \(hi̩ diet = di? = ka\) \(?â = t-beh-ep\)
\(that = OBJ\) show = OBJ = ASS 3SG.M = EVID-go-PST
'he went to show that (his pain)'

31) \(kan = bû = bit = hî\) \(kân\) \(?â = him-at\)
\(\text{there = LOC} = \text{ALSO = REM.PST 3SG.M} \) 3SG.M = exist-NMLZ
'he lived over there also'

The distal demonstrative \(kun\) ‘DIST.DEM’ is used to refer to referents far away
from the speaker, hearer, or both (32). Its alternate forms are \(kân\) and \(num\). The use
of the distal demonstrative is usually accompanied by a pointing gesture signaling
towards the (imagined, in the case of stories, for example) location of the referred
entity. The referent can be either visible or not visible to speaker and hearer. This
distal demonstrative has an alternate form \(num\) as shown in Table 7.4 above. The
criteria conditioning the use of one over the other seem to correspond to clan dialectal
variation but need to be investigated further.

32) Q: \(dê = bû = tî?\) \(kân\) \(mi = t-beh-ep\)
where/when 3SG.F 3SG.F = EVID-go-PST
‘where did she go?’

A: \(kûn = na\) \(?ètâ\)
\(\text{DIST.DEM = DECL grandmother.VOC}\)
‘there, grandma’ (to the other side of the hill)

As described for the proximate demonstrative pronoun, the distal
demonstrative \(kûn\) ‘DIST.DEM’, can function as an argument of a clause, whether
subject, object, or as adjunct:
Elements of the noun phrase

33) \[ kǔn = bū \quad wĕm \quad bî \quad nin \quad húptfi = di? \quad têw-bedǐ = nit \]
\[ \text{DIST.DEM} = \text{LOC} \quad 1\text{SG} \quad \text{today} \quad \text{this.M} \quad \text{year} = \text{OBJ} \quad \text{work-can} = \text{S.S} \]

\[ pēa = nit \quad hoda? = di? \quad wā = mumi' - bîp = na \]
\[ \text{finish} = \text{S.S} \quad \text{banana} = \text{OBJ} \quad 1\text{SG} = \text{plant-FUT} = \text{DECL} \]

‘Over there (at the manioc field) in this year, when I can finish my work, I will plant bananas’

34) \[ pɨ \quad kũn = na \quad wîd-da? \]
\[ \text{TERM} \quad \text{that} = \text{DECL} \quad \text{Sloth-CL.round} \]

‘up to that Sloth hill’ (speaker points to the place where the Sloth hill is supposed to be, although it is not visible from the point where the speech act is occurring).

The immediate proximal demonstrative \( nin \), or feminine \( nin' \), glossed as ‘this.M’ or ‘this.F’ to avoid long glosses, is used to refer to an entity that is immediately proximate to the speaker or hearer. It is also used to refer back to the last referent previously mentioned in the discourse, like English ‘the latter’.

Constructions involving the immediate proximate demonstrative often imply that the object is reachable rather than pointable, e.g. ‘this very bark right here’. This immediate proximate demonstrative has dedicated masculine (i.e. non-feminine, including inanimate) and feminine forms. In (35) it is marked with the locative case clitic \( = bū \). In (36) it is compounded to a nominalized verb.

35) \[ fɨ = niw-wā \quad bād \text{da} \quad nin = bū \]
\[ 1\text{PL} = \text{grandfather-PL.deceased} \quad \text{this.M} = \text{LOC} \]

\[ ñi = t-ʔâb-hāw'-ap = wît = hĩ \]
\[ 3\text{PL} = \text{EVID-go.up-come-PST} = \text{REP.EVID} = \text{REM.PST} \]

‘(It is said that) our deceased forefathers came up to this very place’

36) \[ jẽ- ni-nin' \]
\[ \text{lie-A.NMLZ-} \text{this.F} \]

‘this (female) liar’

Before turning to numerals (§7.4 below), note that feminine forms (\( nin \) and \( nin' \) ‘this.F’ vs. \( nin \) ‘this.M’ and \( kān' \) ‘3SG.F’ vs. \( kān \) ‘3SG.M’) might have historically developed from an added glottal stop in final position to signal feminine gender. Presumably, the glottal stop was once detached from the synchronic pronominal forms, marking feminine gender and, with time, got phonologically fused to the pronoun form giving rise to a pronominal distinction of feminine versus masculine pronominal forms.
### 7.4 Numerals

Numerals in Kakua are fairly transparent in their etymological source, with the exception of the numbers ‘one’ and, to some extent, ‘three’. Numerals are built by compounding noun roots (or adjectivized or nominalized verb roots), plus additional noun morphology such as case marking, number marking, and classifiers, among other nominal (and verbal) morphology. Terms referring to numerals four and above involve a generative system consisting of adding terms for fingers and hands to the basic forms for one to four.

Having an obscure etymological status, or unanalyzable forms, for the numerals one and three, as in Kakua, is not uncommon for languages spoken in South America, as is having a form for ‘four’ that involves a form meaning ‘companion’ and a reflexive marker (cf., Epps et al. 2012; Epps 2013).

Table 7.5 below summarizes the forms used for the cardinal numbers one to five and gives the morpheme glossing identifying their etymological sources.

<table>
<thead>
<tr>
<th>Form</th>
<th>Morpheme gloss</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>bik</td>
<td>one</td>
<td>one</td>
</tr>
<tr>
<td>ḏen</td>
<td>friend/partner/companion</td>
<td></td>
</tr>
<tr>
<td>ḏenwā ~ ḏenwā</td>
<td>ḏen-wā friend-PL.AN</td>
<td></td>
</tr>
<tr>
<td>ḏen-na</td>
<td>ḏen-na friend-PL.IN</td>
<td></td>
</tr>
<tr>
<td>bik-pef ḏanni</td>
<td>bik-pef-kan-ni</td>
<td>one-?-NEG-ADJVZ ‘one without company’ (?)</td>
</tr>
<tr>
<td>ḏenenamek (inanimates)/ ḏenewāmek (animates)</td>
<td>ḏen-na-mik</td>
<td></td>
</tr>
<tr>
<td></td>
<td>two/partner-PL.IN-RFLX/REC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ḏen-wā-mik</td>
<td></td>
</tr>
<tr>
<td></td>
<td>two/partner-PL.AN-RFLX/REC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘each other have a partner/being partners with each other’</td>
<td></td>
</tr>
<tr>
<td>bikhī’hū tejįja</td>
<td>bik = hīʔ = hū tejįja</td>
<td></td>
</tr>
<tr>
<td></td>
<td>one = COM = EMPH hand</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘with one hand’</td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 7.5, the construction for Kakua numeral ‘three’ bik-pef-kan-ni has an unidentified element pēf which, at this moment, remains unglossed. In the currently available Kakua data, no source form can be identified. Presumably, this unidentified morpheme is (or was) a verbal root because it is followed by morphology that is exclusive to verbal elements: the verbal suffixes –kan ‘NEG’, and –ni ‘A.NMLZ’ or ‘ADJVZ’. Possibly, this unidentified element pēf is related to a blend of the verbs roots peh-him ‘be.friends/be.together-exist’ or to the compound of peh-wîʔ-kan ‘be.friend-not.exist-NEG’. Whether or not the unidentified element pēf corresponds to a diachronic compound is thus not clear.
The motivation for proposing a source relating to a meaning of ‘be.together’ plus an additional morphological element, relies on two facts: i) many Eastern Tukanoan languages have a clear etymological source for the numeral ‘four’ with a meaning similar to ‘having a companion’ (see Huber & Reed 1992 for Eastern Tukanoan languages Tatuyo, Barasano, Tuyuka, Yurutí, Makuna, Piratapuyo, Siriano, Karapano). Thus, extrapolating this logic to the Kakua term for ‘three’, it could be translated into ‘that who does not have a companion’. ii) This directs the hypothesis of thinking that possibly the form was constructed from a, previously, complex compound involving the negative existential morpheme \( wîʔ-i-kan \) ‘not.exist-NEG’, or the existential verb \( hîm \) ‘exist’ which was attached to the verb \( péh \) meaning ‘be.together’, or ‘be friends’. Example (37) below was found in a Kakua text, in this case, not referring to the numeral three in itself, but to an odd numbered item. Here the speaker was counting pairs of seeds, when one seed was standing by itself in the line of paired seeds:

\[
37) \quad \text{bîʔ tib} \\
\text{other seed} \\
\]

\[
\text{ʔā = t-þeh-wîʔ-kan} = \text{wit = hî} \\
3\text{SG.M = EVID-be.together-NOT.EXIST-NEG} = \text{REP.EVID = REM.PST} \\
\text{‘one seed was odd (didn’t have a partner’)}
\]

Forms for numerals 6-20 are based on terms for hands, feet, fingers and toes, added to the terms for numerals one, two, and three. These are shown in Table 7.6 below.

Note that in the glosses given for these lexemes, sometimes the plural morpheme given is the animate plural -\( wâ \) (e.g., \( fënna \) ‘two’) or the inanimate plural -\( na \) (e.g., \( fënna \) ‘two’, \( fënna \) ‘four’). The use of either plural animate or plural inanimate is determined by the animacy of the enumerated noun: if it is inanimate (\( fënna \) ‘two houses’) the plural form used in the numerals is the inanimate plural -\( na \) ‘IN.PL’. If it is animate (\( fënna \) ‘k’ ‘two persons’) the plural form used in the numeral is the animate plural suffix -\( wâ \).

Table 7.6 Kakua cardinal numbers 6-20

<table>
<thead>
<tr>
<th>Form</th>
<th>Morpheme segmentation and gloss</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>bikhîʔbū têj ja biktêj tibdub’ ?ûr’ni</td>
<td>bik = hîʔ = bū têj ja one = COM = EMPH hand</td>
<td>six</td>
</tr>
<tr>
<td></td>
<td>bik-þej-tib-dub’ ñîb’-ni</td>
<td>one-hand-finger-CL:pointed take.out-AG.NMLZ with one hand and take one finger out</td>
</tr>
<tr>
<td>Form</td>
<td>Morpheme segmentation and gloss</td>
<td>Translation</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>bǐkʰiʔbǔʔe粲</td>
<td>bǐk = hǐ = bǔ těj ja</td>
<td>seven</td>
</tr>
<tr>
<td>jà</td>
<td>one = COM = EMPH hand</td>
<td></td>
</tr>
<tr>
<td>gēneʔeʔ⁴tibdu bʔ?ʔbʔni</td>
<td>gēne-těj⁴-tib-du⁷ ẑʔ⁴-⁰ni</td>
<td></td>
</tr>
<tr>
<td></td>
<td>two-hand-finger-CL:pointed take.out-ADVZ</td>
<td></td>
</tr>
<tr>
<td>bǐkʰiʔbǔʔe粲 těj⁴jà bǐkpej⁴kannibʔbʔni</td>
<td>bǐkʰiʔbǔʔe粲 = hǐ = bǔ těj ja</td>
<td>eight</td>
</tr>
<tr>
<td></td>
<td>one = COM = EMPH hand</td>
<td></td>
</tr>
<tr>
<td></td>
<td>bǐkpej⁴kannibʔ⁴ni</td>
<td></td>
</tr>
<tr>
<td></td>
<td>three-CL:pointed take.out-ADVZ</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘with one hand and take two fingers out’</td>
<td></td>
</tr>
<tr>
<td>bǐkʰiʔbǔʔe粲 jà gēneNamikdu bʔ?ʔbʔni</td>
<td>bǐkʰiʔbǔʔe粲 = hǐ = bǔ těj ja</td>
<td>nine</td>
</tr>
<tr>
<td></td>
<td>one = COM = EMPH hand</td>
<td></td>
</tr>
<tr>
<td></td>
<td>gēneNamikdu⁴-⁰ni</td>
<td></td>
</tr>
<tr>
<td></td>
<td>four-CL:pointed take.out-ADVZ</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘with one hand and take four fingers (pointed) out’</td>
<td></td>
</tr>
<tr>
<td>gēnewǎ paʔtěj⁴jà</td>
<td>gēnewǎ paʔ-těj⁴jà</td>
<td>ten</td>
</tr>
<tr>
<td></td>
<td>two like.this-hand</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘two hands like this’</td>
<td></td>
</tr>
<tr>
<td>gēnewǎ paʔtěj⁴jà = hǐʔ bǐtib⁴beʔ⁴dubʔ⁴ni</td>
<td>gēnewǎ paʔ-těj⁴jà = hǐʔ</td>
<td>eleven</td>
</tr>
<tr>
<td></td>
<td>two like.this-hand = COM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>hit-tib⁴-beʔ⁴-dubʔ⁴ni</td>
<td></td>
</tr>
<tr>
<td></td>
<td>foot-finger-AUG-CL:pointed take.out-ADVZ</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘with two hands like this and take one big foot finger [toe] out’</td>
<td></td>
</tr>
<tr>
<td>gēnewǎ paʔtěj⁴jǎhǐʔ gēneNhittibna bेʔ⁴dubʔ⁴ni</td>
<td>gēnewǎ paʔ-těj⁴jǎ = hǐʔ</td>
<td>twelve</td>
</tr>
<tr>
<td></td>
<td>two like.this-hand = COM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>gēne-hit-tib⁴-na-beʔ⁴-dubʔ⁴ni</td>
<td></td>
</tr>
<tr>
<td></td>
<td>two-foot-finger-PL.IN-AUG-CL:pointed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ẑʔ⁴-⁰ni</td>
<td>take.out-ADVZ</td>
</tr>
<tr>
<td></td>
<td>‘with two hands like this and take two big feet finger [toes] out’</td>
<td></td>
</tr>
<tr>
<td>Form</td>
<td>Morpheme segmentation and gloss</td>
<td>Translation</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>ʧênewā pa?têj’ja? bîkhi?i? ʔib?ni</td>
<td>ʧênewā  pa’?-têj’ja = hĩ? two like.this-hand = COM bîkhi?i? ʔib’?-ni one-foot take.out-ADJVZ ‘with two hands like this and take one foot out’</td>
<td>fifteen</td>
</tr>
<tr>
<td>Form</td>
<td>Morpheme segmentation and gloss</td>
<td>Translation</td>
</tr>
<tr>
<td>------</td>
<td>-------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>ḥênewá paʔ-teʔja a hĩʔ bǐkhiʔhaʔiʔ? ḥênenahittib beʔduʔ? ṭibʔni</td>
<td>ḥênewá paʔ-teʔja a hĩʔ two like.this-hand = COM bǐkhiʔhaʔiʔ? one-foot = COM ḥêne-na-hit-tib-beʔ?-duʔ’ two-PL.IN-foot-finger-AUG-CL:pointed ṭib’-ni take.out-ADJVZ ‘with two hands like this with one feet and take two toes out’</td>
<td>seventeen</td>
</tr>
<tr>
<td>ḥênewá paʔ-teʔja a hĩʔ bǐkhiʔhaʔiʔ? bikpejʔkanni hittibnabeʔdu b’ʔ ṭibʔni</td>
<td>ḥênewá paʔ-teʔja a hĩʔ two like.this-hand = COM bǐkhiʔhaʔiʔ? one-foot = COM bikpejʔkanni-hit-tib-na-beʔ?-duʔ’ three-foot-finger-PL.IN-AUG-CL:pointed ṭib’-ni take.out-ADJVZ ‘with two hands like this with one feet and take three toes out’</td>
<td>eighteen</td>
</tr>
<tr>
<td>ḥênewá paʔ-teʔja a hĩʔ bǐkhiʔhaʔiʔ? ḥênenamîkdu b’ʔ/hittibnabeʔ? duʔ? ṭibʔni</td>
<td>ḥênewá paʔ-teʔja a hĩʔ two like.this-hand = COM bǐkhiʔhaʔiʔ? one-foot = COM ḥênenamîkdu-hit-tib-na-beʔ?-duʔ’ four-CL:POINTED-foot-finger-PL.IN-AUG-CL:pointed ṭib’-ni take.out-ADJVZ ‘with two hands like this with one feet and take four toes out’</td>
<td>nineteen</td>
</tr>
</tbody>
</table>
As seen in the forms given in Tables 7.5 and 7.6 above, Kakua does not have any special morphology for higher numerals. Instead, compounds of verb or noun roots, and other additional morphology not specific to numerals or quantifiers are used for these.

Although Kakua speakers have reported that this numeral system can be extended to numbers higher than 20, by adding terms of body parts of other individuals (‘two hands and two feet and one hand from another person’), in actual practice any quantity beyond five is expressed by using Spanish loans, as in (38) and (39):

38) \[ \text{wā} = \text{?āb-} \text{beh-} \text{ep} = \text{hi} \]
   \[ \text{ʧējbit} = \text{he} \]
   \[ \text{siete} = \text{jūb} \]
   \[ 1SG = \text{go.up-go} - \text{PST} = \text{REM} - \text{PST} \]
   \[ \text{morning} = \text{INTS} \]
   \[ \text{seven(SP)} = \text{INTS} \]
   ‘I went up early at seven’

39) \[ \text{jēw} \]
   \[ \text{ʔōfo} \]
   \[ \text{him-at} = \text{dē} \]
   \[ \text{ʧib-hāw‘i} = \text{ʧa} \]
   \[ \text{sun} \]
   \[ \text{eight(SP)} \]
   \[ \text{exist-NMLZ} = \text{INF} \]
   \[ \text{return-come} = \text{PROG} \]
   ‘at eight in the morning, (he) might be returning’

Likewise, quantities higher than one or two, and those that do not need an exact reference, are often referred to as ‘many’, as in (40).

40) \[ \text{dawā} \]
   \[ \text{hja = bū} \]
   \[ \text{beh = na} \]
   \[ \text{many} \]
   \[ \text{forest} = \text{LOC} \]
   \[ \text{go} = \text{DECL} \]
   ‘many (of them) went into the forest’

The verb root \( \text{ʧ} \text{ib} \) ‘be.first’ can serve to express ordinal number. Ordinality for other number values does not have a specific means of expression in Kakua.

41) \[ \text{ʔā} = \text{ʧib} \]
   \[ \text{ʧib-tʃid-at} = \text{ti} \]
   \[ \text{3SG.M = return} \]
   \[ \text{be.first-sit-NMLZ} = \text{INTS} = \text{DECL} \]
   ‘he returned to where he was sitting first’
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42) \( mɛm = dîʔ = ka \) \( wã = f \tilde{f} \) \( wã = ?um = mip \)

2SG = OBJ = ASS 1SG = be.first 1SG = allow = IMM.FUT

\( ?ã = t-nih = na = wî = hî \)
3SG.M = EVID-say = DECL = REP.EVID = REM.PST

‘I’m first going to let you (go)’, he said

43) \( kân = diʔ \) \( \_\_\_ = twî? = b - beh - ep \) \( wěm = ka \)

3SG.M = OBJ 2PL = be.first-take.out-go-PST 1SG = ASS

\( wã = t\tilde{f}p = bip \)
1SG = pray.on = FUT

‘you take him out first, I’m going to make a prayer on him’

Numerals in Kakua are often accompanied by a hand gesture. When expressing the numerals one and two, the speaker will join together her index finger and middle finger as in picture 1 below. Note that this gesture does not differentiate between the numerals one and two. Even though one would expect the use of one finger for one, and the gesture in picture 1 for number two only, the gesture in Picture 1 is in fact used for both numbers.

**Picture 1: Hand gesture accompanying numerals one and two**

The hand gesture accompanying the numeral three is illustrated in picture 2, in which index and middle fingers are joined together, while the ring finger is left up but not touching the other two:
Elements of the noun phrase

Picture 2: Hand gesture accompanying numeral three

The hand gesture accompanying this numeral can potentially serve to support the hypothesis posited above regarding the etymology of \textit{pēj} in the construction \textit{bikpēj\kanji{kan}} ‘three’. The hypothesis above suggests that \textit{pēj} may be analyzed as a compound \textit{peh-him} ‘be.friends/be.together-exist’; thus, the construction \textit{bikpēj\kanji{kan}} would (historically) roughly translate as ‘one with no companion/one with no friend’, taking into account the negation suffix -\textit{kan} ‘\textit{NEG}’ immediately following the element \textit{pēj}. Picture 2 above can be interpreted as two which are together and one which is not; i.e., one without a companion.

The hand gesture accompanying the numeral four consist of a mirror gesture of that for numerals one and two. Index and middle fingers are joined on one side, and ring and little finger joined together aside:

Picture 3: Hand gesture accompanying numeral 4

The numeral five is accompanied by a hand gesture where the thumb is left up alone, while index and middle finger are joined together on one side, and ring
and little finger joined together aside from index and middle finger. This is illustrated in the following picture:

*Picture 4: Hand gesture accompanying numeral five*

For the numeral 6, the thumbs from both hands join together to form another pair. When elicited, speakers will continue on with this strategy of forming pairs until reaching 10. Thereafter, until 20, they would point to the feet being added and continue with the hand gesture. Given that Kakua numerals are being replaced with Spanish loans (as mentioned above), and while speakers do use the hand gestures even for Spanish loans, it is unclear if for numerals beyond 10 speakers would still use these hand gestures with Spanish loans.

### 7.5 Quantifiers

In addition to numerals, Kakua has other morphemes that express quantity. These are: \( \textit{t}aw \) ‘sometimes’, \( \textit{tak} \) ‘be.middle/half’, \( \textit{ni/\textit{at}} \) ‘all/every’, \( \textit{lâ} \) ‘times/era’, \( \textit{dawâ} \) ‘many’, and \( \textit{hena} \) ‘this much/count/measure’. These terms can act like modifiers of nouns (or adverbials) in noun phrases, or can also occur by themselves as the head of a noun phrase functioning as quantifiers. Examples of these morphemes expressing quantity are given below:

| 44 | \( \textit{pan} \textit{ni/\textit{at}} \textit{na} \) | \( \textit{bi} \) | \( \textit{t}aw \) | \( \textit{wini}=\textit{tfu} \) |
| and.so = DECL | today | sometimes | die = D.S |

\( \textit{t}=t-\textit{tjp}-\textit{hip} = \textit{tagâ} \) \( \textit{kéf} \)

3PL = EVID-pray.on-DUB = INF.EVID \( \text{3PL} \)

‘and so, sometimes when there is sickness nowadays, (I suppose) they make the traditional prayers’
45) win-bed = be 
ma = mâ-na 
ma = niw-wâ
die-extinguish = REC.PST 2SG = parents-PL 2SG = grandfather-PL

ma = ?ibi-wâ  
2SG = uncle-PL  
all
‘they were dying, your parents, your grandfathers, your uncles […] everybody’

46) noâpîh-na?,  ni?at 
hû-na,  ni?at,  ma=mâ-na-i?
yam-CL:tree  3PL  corn-PL  3PL = parents-PL-POSS
‘(they have) yam trees, everything, corns, everything belongs to your parents’

47) ?eʃ-kûdu?-na?,  ni?at,  pêlat 
?î=hâhkûmu-na?,  ni?at 
ni?at  3PL.POSS = manioc.beer  pot-CL:ROUND-PL = COM  all = ASS
‘the dance cane, the panflute, all of it, the ritual boat, all of it, their manioc beer with the pots, everything (was there)’

The concept ‘half’ is expressed with the verb root tak ‘be.middle’ or a nominalization of this verb, tak-at (be.middle-NMLZ) ‘the middle / the half’:

48) jêw-hap-tak = jûb  
baj-ni-bit  
bêm’-at = di?
sun-up-be.middle = INTS  be.small-ADJVZ-DIM  eat-NMLZ = OBJ

?î = t-wît?-ip = wit = hî
3PL = EVID-give-PST = REP.EVID = REM.PST
‘at midday (halfday) they gave (her) a little bit of food’

49) hîhi, 
   tak = jûb = wit = hî
yes,  medium = INTS = REP.EVID = REM.PST

?â = t-hîbi-?ên-ep = wit = hî
3SG.M = EVID-arrive-see-PST = REP.EVID = REM.PST
‘yes, half (way there) he arrived and looked’

The quantifier-like expression dawâ ‘many, much’, can occur as both a nominal modifier as in (50), or as a nominal head. It is usually used to describe a large quantity or a group of entities:
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50) \( kan = na \quad \hat{t}i = t - \hat{\text{i}}\hat{\text{n}} - \hat{\text{i}}p = ta = be \quad h\hat{u} = di \)  
PROX.DEM = DECL \( \quad \) 3PL = EVID-grind-PST = INF.EVID = REC.PST \( \) corn = OBJ

dawā  
many
'there they ground a lot of corn'

51) \( dawā = wi = hi \quad kāk-wā \quad \text{hin-up} = hi \)  
many = REP.EVID = REM.PST \( \quad \) person-PL \( \) exist-PST = REM.PST

\( kan = na \)  
there = DECL
'many people were there'

The quantifier hênaʔ is a verb root meaning 'to measure' or 'to count'. Because it takes all of the verbal morphology, it is considered here as a verb (as in 52), although it can be nominalized as any other verb, as in (53), bound to the nominalized verb \( \hat{\text{i}}\hat{\text{n}} \) 'see':

52) \( \hat{t}ʃênna \quad \hat{t}ʃênna \quad \hat{t}i = hênaʔ \)  
two \( \) two \ 3SG.M = measure
'he measures two by two (the seeds)'

53) \( \ell i = t \hat{w} - at \quad bēnaʔ - \text{hēn-at} = ti = ka \quad \hat{i} \)  
1PL \( \) work-NMLZ \( \) measure-see-NMLZ = INTS = ASS \ 3PL = EVID-say = DECL = REM.EVID = REM.PST

\( \hat{t}i = \text{beh} = na \)  
3PL = go = DECL
'Today we are going to calculate (measure) the weather, they said'

7.6 The emphasis marker = bǔ

The Kakua enclitic = bǔ is a polysemous morpheme. It serves as a locative case marker (encoding physical and temporal location), as illustrated again in examples (54) and (55) below (see section § 6.4.1 in Chapter 6 for a description of locative case marking):

54) \( \hat{t}fna \quad \text{wāp}fjī = bǔ \quad mi = \text{beh}-\hat{\text{i}}p = na = ka \)  
Ina \( \) manioc.field = LOC \( \) 3SG.F = go-FUT = DECL = ASS

'Ina will go to the manioc field'
In addition to the locative use, the enclitic =bũ also serves to emphasize a particular participant in an event. A contrast between the locative use of this marker and its emphatic use can be seen by comparing (54) and (55) above to the example in (56) below.

56) nĩh=na beh=nit  panʔ ʔã=t-nih-ip=hĩ
    say =DECL  go =S.S  like.this 3SG.M = EVID-say-PST = REM.PST

nĩwã = bũ
grandfather = EMPH
‘this is the one that says, goes like this, grandfather said’

When functioning as a marker of emphasis, =bũ can attach to subject arguments of a clause, as in (57).

57) nĩwã ʔã=pebhɨmnit=hiʔ  ʔiʔ-naʔ
    grandfather 3SG.M = neighbors = COM blowgun-CL.tree

ʔã=nim-ni  naʔa=hĩʔ  webit=bũ
3SG.M = steal-ADJVZ  CL.tree = COM  child = EMPH

bũɁjup=diʔ  maw
humming.bird = OBJ kill
‘The children hunt humming birds with the blowgun (that) grandfather had stolen from his neighbors’

The two meanings of this form are undoubtedly related and probably historically derive from one morpheme; i.e. =bũ underwent, or is undergoing, a semantic extension, and also developed different distributions: one occurs with subjects whereas the other (locative) cannot. The direction of this semantic extension (or semantic shift) would probably have been from physical location which became associated, over time, with the ‘location’ of a participant within the discourse, following the cross-linguistically the common pathway from a concrete spatial meaning to other more abstract meanings (e.g., of time or discourse relevance).

Whichever the direction might be, the semantic extension, or shift, of =bũ developed with a functional motivation, in which either a physical location became

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2 Note that ‘neighbours’ here is a lexicalized construction functioning as a noun (from peb-him-nit [be.close-exist-SUBR] literally ‘those who are close by’).
associated to the location of a participant within the discourse, or vice versa - i.e. the more abstract-like discourse marking of participant location became associated to the physical location of a referent.

This enclitic is glossed as ‘LOC’ when functioning to mark location, and as ‘EMPH’ when its use is to emphaticize a participant of the discourse. Further examples of the emphatic use follow.

58) \( \text{pan}^=\text{na} \) \( \text{kàn} \) \( \text{jū} = \text{bū} \)  
and.so = DECL 3SG.M armadillo = EMPH

\( ?\text{ā} = \text{t-nih} = \text{na} = \text{wî} = \text{hī} \)  
3SG.M = EVID-say = REP.EVID = REM.PST
‘and so the armadillo said […]’

59) \( \text{kàn} = \text{bū} \) \( \text{hi}^\text{-be}? = \text{na} = \text{wî} = \text{hī} \) \( \text{kēt} = \text{bū} \)  
3SG.M = EMPH show-grow = DECL = REP.EVID = REM.PST 3PL = EMPH

\( \text{tēw-wiʔi-kan} \) \( \text{?im} = \text{na} \) \( \text{kàn} = \text{diʔ} \)  
work-not.exist-NEG be.afraid = DECL 3SG.M = OBJ
‘he showed (it to them), but they were afraid to touch it’
Chapter 8

The Verb: morphology and structure

8.0  Introduction

The morphology of verbs in Kakua is complex. Verbal morphology is highly agglutinative ("concatenative" in Bickel’s 2007 terms), i.e. several functional morphemes and roots concatenate to form the verbal word.

While most Kakua clitics and affixes occur after the stem, verbs have the only prefixing positions in Kakua, but even in verbs, suffixes and enclitics far outnumber prefixes and proclitics. These prefixes encode some of the evidentiality categories fused with aspectual distinctions (see Chapter 11), and the reflexive/reciprocal morpheme mik- ‘RFLX/REC’.

Verbs in Kakua inflect for person and number, and gender for 3SG, encoded in the cross-referencing proclitics which mark agreement with subject arguments. In principle, these proclitics are obligatory on the verb word; some semantic and discourse conditions, however, allow for omission of these proclitics on the verb. These criteria were discussed in Chapter 6.

Verb stems are morphologically regular, there are almost no suppletive forms or other types of allomorphy, with one exception, the irregular verbal stem form nih’, which is considered to be the past form of nih ‘say’.

This chapter presents a detailed description of the morphology and the structure of verbs in Kakua. Some semantic characteristics are also discussed, but the details of semantics of the verb in Kakua await future research.

Section §8.1 describes the phonological, morphological and semantic characteristics of verbs in Kakua. Section §8.2 is dedicated to the different semantic classes of verb roots, i.e. the semantic distinctions of positional, stative, motion, and descriptive verbs. The basic morphological template of verbs and the structure of the predicate is discussed in §8.3. Further verbal constructions, like compounding, serialization, and other tense, aspect, mood, modality and evidentiality distinctions are discussed in subsequent chapters.

8.1  Defining the verb in Kakua

As opposed to the morphology of nouns (see Chapter 4), the verb morphology in Kakua is very complex. With only very few exceptions, verb roots cannot occur as bare roots when functioning as main clause predicates. Verb roots must always be inflected for person, number (and gender for 3SG) with a procliticized cross-referencing pronoun, and/or be specified for mood (see section §8.3 below).
Phonologically, the characteristics of verb roots are not unique to the class of verbs (see the description of the defining characteristics of the different parts of speech in Chapter 3). Verb roots, as roots in the language as a whole, must be minimally monosyllabic, and maximally bisyllabic. Roots bear lexical tone, and all of Kakua's tonal inventory is exhibited in verb roots (as shown in 1 below):

1) \( \text{jù} \) ‘have diarrhea’

\( \text{jù} \) ‘massage while praying’

\( \text{jù} \) ‘be dripping’

Although a verb word may be composed of several roots (see Chapter 9 for verb compounding and serialization), and these roots may present different tonal values, the verb word as a whole has a characteristic intonation, with a high pitch at the beginning of the word that gradually falls towards the end of the word. Thus, if a verb word is composed of more than one root, the highest tone pitch for the second root is invariably lower than the highest tone pitch of the first root (this is discussed in detail in Chapter 2 on Kakua phonology regarding downrift).

Verb roots are also lexically specified for nasality or orality, as another general characteristic of Kakua roots that is not unique to verb roots. As briefly introduced in Chapter 2, verbs are distinguished from nouns primarily on semantic and morphosyntactic grounds, rather than phonological (see the overview in Chapter 2 on the parts of speech and their basic characteristics).

Semantically, verbs roots refer to actions (e.g., \( \text{gùk} \) ‘bite’), processes (e.g., \( \text{móp} \) ‘to rot’), and temporal or permanent states (e.g., \( \text{pa} \) ‘be-like’; \( \text{hèp} \) ‘be jealous’). In other words, Kakua verbs prototypically express relations that are anchored in time, processes or actions, or more general atemporal states of being such as \( \text{dì} \) ‘be red’, \( \text{nim} \) ‘be below’, etc. States denoting inherent or temporal properties are usually expressed by descriptive verbs. The verb word may function as the predicate of the clause.

Related to its characteristic of being a heavily agglutinative language, Kakua verb roots tend to encode only one relatively simple meaning each, while complex meanings are created by combining various verb roots (see discussion in §8.3 below for each of these verbal morphemes).

Syntactically, the predicate tends to be the last constituent of the clause (SOV). It is, thus, easy to recognize the verb word within a clause: it is the morphologically most complex word, and the one that normally occurs in the last syntactic position of the clause. The verb word by itself can also be sufficient both as the predicate and as the only constituent of the clause, as is further discussed in Chapter 11 on clause structure. Two examples are given in (2) and (3) below. Example (2) illustrates the predicate occurring in its most typical final position. Example (3) illustrates the predicate as sufficient to function as a clause in itself:
The verb: morphology and structure

8.2 Transitivity and verb root classes

This subsection describes the different semantic subclasses of verb roots. This section will first address the semantics of verbs with regard to transitivity; after these transitivity distinctions have been addressed, this section will describe the different types of verbs with regard to other semantic features, specifically the semantic subclasses of verbs, such as descriptive, stative, positional, and motion verbs. Other verbal constructions and their semantics, such as verb serialization and compounding, are dealt with in Chapter 9.

With regard to transitivity, verb roots can be identified as being inherently intransitive or transitive (mono- or ditransitive) verbs, judging by the number of arguments that they can take. This distinction, however, is not very straightforward and the lexical transitivity of verb roots is often difficult to establish. This is because arguments do not have to be overtly expressed whenever these arguments have been previously mentioned in the discourse. This applies particularly to the overt expression of object arguments. Subject arguments are cross-referenced on the verb, and only with restricted exceptions these are not overtly expressed. The rules governing the optionality of cross-referencing subject proclitics are discussed in Chapter 6.

Example (4) below illustrates this problematic classification of verb roots according to their lexical valency. The example is extracted from a conversation in Kakua, shows a semantically transitive verb $\text{bɨ́dʔ-tû}$ ‘add.onto-hold.vertically’, where the object argument is not expressed. However, since the argument to which the verb is referring had been previously stated, the sentence is perfectly grammatical in Kakua discourse:

4) $\text{bɨ́dʔ-tû = ka = nit}$
   add.onto-hold.vertically = ASS = S.S

$\text{ʔã = t-hijbi-pɨʔ-ip = wit = hî}$
3SG.M = EVID-arrive.here-stop-PST = REP.EVID = REM.PST
‘he arrived and stopped, and held (the panflute) vertically (against his body)’
The use of another semantically transitive verb with and without an overt object noun phrase is illustrated in (5)-(6).

5) \[ Te \, \hat{\eta}t = t - tf\hat{u}h = na = wit = be \]
   \[ Te \, \hat{\eta}t = EVID = bathe = DECL = REP.EVID = REC.PST \]
   ‘Te went to bathe (it is said)’

6) \[ k\hat{\eta}n = di? \, \hat{\eta}t = t - tf\hat{u}h - up = wit = h\hat{t} \]
   \[ k\hat{\eta}n = OBJ = 3PL = EVID = bathe - PST = REP.EVID = REC.PST \]
   ‘they bathed her (it is said)’

Example (7) illustrates the semantically ditransitive verb \( h\hat{t} \) ‘show’. With this verb also, not all arguments need to be overtly expressed. Here, only two overt arguments occur: the proclitic for \( 3SG.M \hat{\eta}t = \) referring to the subject argument of the clause, and the object \( k\hat{\eta}n = di? \) referring to the indirect object (recipient) ‘shaman’. The direct object (theme), \( t\hat{\eta}b \) ‘pain’, is dropped since it had been previously established in the discourse:

7) \[ k\hat{\eta}n = di? \, h\hat{\eta}t i = ka \, \hat{\eta}t = t - beh = tag\]
   \[ k\hat{\eta}n = OBJ = 3SG.M = eat = DECL = ASS \]
   ‘perhaps he went to show (his pain) to him (the shaman)”

As discussed in Chapter 8, Kakua does not mark subject arguments with morphological case, but rather they are indexed on the verb. Other arguments (objects), receive the case marker \( = di? \) ‘OBJ’. The marking of case for object arguments, however, is governed by differential object marking rules (c.f., §8.3), and thus, some arguments that function as objects may lack case markers. Therefore, the presence or absence of object case markers on arguments is not a reliable indicator of the transitivity of the root. Example (8) illustrates the verb ‘eat’ \( h\hat{\eta}m\hat{t} \), where the object argument is not morphologically marked for case, which is one of the formal cues that help identify the valency of verb roots, here camouflaged by the absence of such marker on the object argument:

8) \[ Katerine \, t\hat{\eta}h \, mi = h\hat{\eta}m\hat{t} = na = ka \]
   \[ Katerine \, pineapple \, 3SG.F = eat = DECL = ASS \]
   ‘Katherine eats pineapple’

As seen in the examples above, defining transitivity values of Kakua verbs is complicated by the omission of arguments, on the one hand, and optionality of case marking, on the other hand. Intransitive verbs can thus be identified as those that can maximally take one (subject) argument, and no object arguments, while mono- and ditransitive verbs can be identified as those that can take one or two object arguments, keeping in mind that these do not need to be overtly expressed, and if they are, they do not need to be marked for object case. Given the possible omission
of object arguments, mono- and ditransitive verbs can also be called ambitransitives, i.e. verbs that may behave both like intransitive and transitive verbs.

8.3 Semantic subclasses of verbs

Two large semantic subclasses can be identified within Kakua verb roots: stative verbs and motion verbs. This subdivision is not a test for identifying transitivity values, and it does not have any syntactic or morphological implications for the structure of the predicate, but this subdivision serves as a semantic cue to the transitivity of verb roots. In principle, stative verbs are intransitive, and motion verbs are intransitive and transitive (see below).

Most attributive (i.e., adjective-like) concepts in Kakua are expressed by stative verbs. These verbs can be called descriptive verbs. They are in their vast majority always intransitive when functioning as the main predicate of the clause. Semantically, Kakua descriptive verbs are distinct from adjectives mainly in that descriptive verbs take virtually all of the verbal morphology available for verb stems in general when functioning as predicates. However, adjectives can be derived from these with the adjectivizer marker –ni ‘ADJVZ’, which then do not take any verbal inflection. Examples (9)-(10) illustrate the contrast between the descriptive verb tɨj ‘be.good’ when functioning as the main predicate of the clause (9) and when functioning as modifier:¹

9) ʔine=ka tɨj=buh bip=na=ka
    Ines=ASS be.good=DIR FUT=DECL=ASS
    ‘Ines will do well (tell the story straightforwardly)’

10) tɨj-ʔeılmış=na kej-ɛ
    be.good-be.black-ADJVZ=DECL paint-IMP
    ‘paint (it) very black!’

Representative examples of descriptive verbs in Kakua are given in Table 8.1 below.

¹ Note that in (9) the future suffix, together with declarative and assertion clitics, bip=na=ka [FUT=DECL=ASS] occur on their own, where otherwise they are always expected to be bound. This exception has been found in two instances in Kakua narratives. At this point I note this apparent ‘detachment’ of the suffixes and clitics, to be further explored in future research.
Table 8.1 List of descriptive verbs in Kakua

<table>
<thead>
<tr>
<th>Verb root</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>bih</td>
<td>be sour</td>
</tr>
<tr>
<td>bāb</td>
<td>be white/be shiny</td>
</tr>
<tr>
<td>hēp</td>
<td>be jealous</td>
</tr>
<tr>
<td>tʃiɡiʔ</td>
<td>have frizzy/curly hair</td>
</tr>
<tr>
<td>bhw</td>
<td>be tough/be difficult</td>
</tr>
<tr>
<td>fim</td>
<td>be hard textured</td>
</tr>
<tr>
<td>nimaʔ</td>
<td>be deep</td>
</tr>
<tr>
<td>hāp</td>
<td>be young</td>
</tr>
<tr>
<td>madaʔ</td>
<td>be long</td>
</tr>
<tr>
<td>kij</td>
<td>be smooth</td>
</tr>
<tr>
<td>bɨdɨf</td>
<td>be big/be very much</td>
</tr>
<tr>
<td>hâʔ?</td>
<td>be too small to fit</td>
</tr>
<tr>
<td>di</td>
<td>be red</td>
</tr>
<tr>
<td>hiʔ?</td>
<td>be bitter</td>
</tr>
<tr>
<td>mâ</td>
<td>be old (of inanimates)</td>
</tr>
<tr>
<td>mdh</td>
<td>be yellowish</td>
</tr>
<tr>
<td>tʃj</td>
<td>be good</td>
</tr>
<tr>
<td>mâjʔ?</td>
<td>be drunk</td>
</tr>
<tr>
<td>ʃuʔ</td>
<td>be sour</td>
</tr>
<tr>
<td>wɛp</td>
<td>be strong</td>
</tr>
<tr>
<td>hig</td>
<td>be bored</td>
</tr>
<tr>
<td>?ʌmuʔ?</td>
<td>be happy</td>
</tr>
<tr>
<td>hiʔ?</td>
<td>be soft/be tender</td>
</tr>
<tr>
<td>ʃfɛwʔ</td>
<td>be blurry</td>
</tr>
<tr>
<td>fʃt</td>
<td>be tired</td>
</tr>
<tr>
<td>fʰw Âp</td>
<td>be thin</td>
</tr>
<tr>
<td>?th</td>
<td>be angry</td>
</tr>
<tr>
<td>dʒiʔj</td>
<td>be dripping</td>
</tr>
<tr>
<td>kâmaʔ?</td>
<td>be cold</td>
</tr>
<tr>
<td>kâbʔ?</td>
<td>be cold</td>
</tr>
<tr>
<td>ɲâj</td>
<td>be greasy</td>
</tr>
<tr>
<td>fɔdi</td>
<td>be ripe</td>
</tr>
<tr>
<td>fɛlɛm</td>
<td>be ripe (of red fruits)</td>
</tr>
<tr>
<td>bid</td>
<td>be lost</td>
</tr>
<tr>
<td>tjʊdɪʔp</td>
<td>be heavy</td>
</tr>
<tr>
<td>fʰw Âw</td>
<td>be twisted/be twingled</td>
</tr>
<tr>
<td>pɛw</td>
<td>be twingled (of trees or teeth)</td>
</tr>
<tr>
<td>hîgaʔ?</td>
<td>be sad</td>
</tr>
<tr>
<td>bâd'f</td>
<td>be alive/be awake</td>
</tr>
<tr>
<td>bâd'f</td>
<td>be alive/be awake</td>
</tr>
</tbody>
</table>
Table 8.1 List of descriptive verbs in Kakua (continued)

<table>
<thead>
<tr>
<th>Verb root</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>ʤâbʔ</td>
<td>be lazy</td>
</tr>
<tr>
<td>ʧʔ</td>
<td>be ashamed</td>
</tr>
<tr>
<td>ʧewʔ</td>
<td>be smelly</td>
</tr>
<tr>
<td>ʔsp</td>
<td>be sharp</td>
</tr>
<tr>
<td>ʔm</td>
<td>be afraid</td>
</tr>
<tr>
<td>nɨjpf</td>
<td>be hungry</td>
</tr>
<tr>
<td>pæʔ</td>
<td>have a fever</td>
</tr>
<tr>
<td>ʔej</td>
<td>be black</td>
</tr>
<tr>
<td>hâfʔ</td>
<td>be green/blue</td>
</tr>
<tr>
<td>dipf</td>
<td>be dark</td>
</tr>
<tr>
<td>bî</td>
<td>be yellow</td>
</tr>
<tr>
<td>hûk</td>
<td>be wet</td>
</tr>
</tbody>
</table>

Another subclass of stative verbs involves verb roots expressing position or posture, which are here called positional verbs. These verbs roots are all intransitive. Representative examples of positional verbs in Kakua are given in Table 8.2 below.

Table 8.2 List of positional verbs in Kakua

<table>
<thead>
<tr>
<th>Verb</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>ʧǔjʔ</td>
<td>be inclined sidewards</td>
</tr>
<tr>
<td>ʤǎjʔ</td>
<td>be hanging</td>
</tr>
<tr>
<td>tã̂ʔ</td>
<td>be behind</td>
</tr>
<tr>
<td>nimʔ</td>
<td>be underneath/be below</td>
</tr>
<tr>
<td>lah</td>
<td>be laying (on a surface above the floor)</td>
</tr>
<tr>
<td>pê</td>
<td>be last/finish</td>
</tr>
<tr>
<td>ñah</td>
<td>be laying on floor</td>
</tr>
<tr>
<td>dit</td>
<td>be inside</td>
</tr>
<tr>
<td>hûk</td>
<td>be outside</td>
</tr>
<tr>
<td>pêbʔ</td>
<td>be near</td>
</tr>
<tr>
<td>nem</td>
<td>be closed</td>
</tr>
<tr>
<td>ʧâʔ</td>
<td>be on top</td>
</tr>
<tr>
<td>ʤâbʔ</td>
<td>be far</td>
</tr>
<tr>
<td>ɲtʔ</td>
<td>be standing</td>
</tr>
<tr>
<td>ʰbɛf</td>
<td>be stock/be added on</td>
</tr>
<tr>
<td>tã̂ʔ</td>
<td>be holding in a vertical position</td>
</tr>
<tr>
<td>ɾʔ</td>
<td>be first</td>
</tr>
<tr>
<td>ʰtʃheʔ</td>
<td>be right on top</td>
</tr>
<tr>
<td>ʧəjlah</td>
<td>lay facing upwards</td>
</tr>
</tbody>
</table>
The second major semantic subclass of Kakua verbs involves motion verbs. This subclass includes intransitive and transitive verbs. Examples of semantically intransitive motion verbs are ‘run’, ‘go’, ‘come’ as in examples (11)-(12). The goal or source of these verbs are not considered as core arguments in Kakua, but as adjuncts. Adjuncts are usually marked with other case markers (e.g., locative case), as in (13). Argument and case marking is described in Chapter 6.\(^2\) The transitivity of verbs that include multiple roots, such as the one in example (11), will be discussed in chapter 9.

11) \(\tilde{a}=\hat{p}=w\hat{p}^{\sim} \cdot \hat{b} = \text{ep} = \text{be}\)
   \[3\text{SG}.M = \text{run-jump/lift.off-go-PST} = \text{REC}.\text{PST}\]
   ‘he ran away’

12) \(\tilde{a}=t-h\hat{w} \cdot \hat{w} = \text{hip} = \text{tag}^{\tilde{a}}\)
   \[3\text{SG}.M = \text{INF.EVID}-\text{come-DESI} = \text{INF.EVID}\]
   ‘perhaps he wanted to come’

13) \(w\tilde{a}=h\hat{a} = \text{h}-\hat{b} = \text{b} = \text{na} = \text{ka} \quad \hat{b} = \text{t} = \text{fina} = \text{b}^{\tilde{a}}\)
   \[1\text{SG} = \text{go.down-go-FUT} = \text{DECL} = \text{ASS} \quad \text{other} \quad \text{farm}^{\text{Spanish}} = \text{LOC}\]
   ‘I will go down to other farm’

8.4 Verb template: the morphological structure of the Kakua verb

When functioning as the predicate of a main clause, verb stems usually cannot occur as bare roots. The verb word is thus usually multimorphemic. It consists minimally of a root and at least one bound morpheme, which may be a proclitic, a sentential mood marker, or both. Maximally, it may contain a procliticized pronoun, two prefixes, several roots, and several suffixes indicating derivation, inflection, and several enclitics.

A simplified template of the verb word is presented in Table 8.3. A pre-stem position must be filled with either a proclitic or a reflexive prefix; at least one root must head the verb word (on combining various verb roots, see Chapter 9), and at least one mood marker (frequently this is the declarative enclitic) must be present if no proclitic, reflexive/reciprocal prefix, or other suffixes are present.

Table 8.3 Simplified verb template

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5-10</th>
<th>11-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proclitic =</td>
<td>Prefix-</td>
<td>Prefix-</td>
<td>verb root(s)</td>
<td>-suffixes</td>
<td>= enclitics</td>
</tr>
</tbody>
</table>

\(^2\) Note that object case marking can occur on a locative noun phrase with a motion verb when this is a demonstrative, as in examples (67)-(69) in chapter 6.
Table 8.4 below further displays all of the morpheme slots of the verb word, divided in numbered morphological positions corresponding to the relative order of individual morphemes that can potentially co-occur. The numbering corresponds to the order of verbal morphemes when moving from left to right in the verb word. Those morphemes presented as occurring in the same slot are mutually exclusive, but also some that are presented in different slots cannot co-occur because of semantic incompatibility. For instance, of the evidentiality enclitics from slot 12, only the reported evidential $=wit$ can co-occur with the declarative mood marker from slot 11 (see §16.8 and Chapter 13). Another such restriction is that evidentiality enclitics from slot 12 cannot co-occur with the assertion marker from slot 14.

For these reasons, the templates presented in Tables 8.3 and 8.4 below are rather idealized versions of what the verb word would look like. The forms presented in 8.4 represent a comprehensive list of the morphemes of the verb word; not all of them can actually co-occur in a verb word.

Table 8.4 Morphemes of the verb word

<table>
<thead>
<tr>
<th>Morpheme Slot</th>
<th>Morpheme gloss/function</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Subject Proclitics =</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1SG =</td>
<td>$=w̄i$ =</td>
<td></td>
</tr>
<tr>
<td>2SG =</td>
<td>$=ma$ =</td>
<td></td>
</tr>
<tr>
<td>3SG.F =</td>
<td>$=mi$ =</td>
<td></td>
</tr>
<tr>
<td>3SG.M =</td>
<td>$=ʔ̄i$ =</td>
<td></td>
</tr>
<tr>
<td>1PL =</td>
<td>$=īi$ =</td>
<td></td>
</tr>
<tr>
<td>2PL =</td>
<td>$=pi$ =</td>
<td></td>
</tr>
<tr>
<td>3PL =</td>
<td>$=pi$ =</td>
<td></td>
</tr>
<tr>
<td>2 Evidentiality and Aspect Prefixes-</td>
<td>second hand evidentiality ‘EVID’, $ti- \sim t-$ often co-occur with the reported evidential clitic $=w̄i$. (see Chapter 10, §10.6), while $ta- \sim t-$ often co-occur with the inferred evidential enclitic $=ta \sim =taḡi$ (see Chapter 10, §10.6)</td>
<td>$ti-$</td>
</tr>
<tr>
<td></td>
<td>Habitual mood ‘HAB’ (see Chapter 10, §10.2)</td>
<td>$=pi$-</td>
</tr>
<tr>
<td></td>
<td>non visual</td>
<td>$=-i$-</td>
</tr>
</tbody>
</table>
Table 8.4 Morphemes of the verb word (continued)

<table>
<thead>
<tr>
<th>Morpheme Slot</th>
<th>Morpheme gloss/function</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Reflexive/reciprocal prefix 'REFLX/REC'</td>
<td>-mik-</td>
</tr>
<tr>
<td>4</td>
<td>stem</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>-Imperative ‘IMP’ (see Chapter 10, §10.4)</td>
<td>-V</td>
</tr>
<tr>
<td></td>
<td>-Negative Imperative ‘NEG,IMP’ (see Chapter 10, §10.4)</td>
<td>-kabuhu</td>
</tr>
<tr>
<td></td>
<td>-Imperative on the benefit of someone else ‘IMP2’ (see Chapter 10, §10.4)</td>
<td>-ālbuḥ</td>
</tr>
<tr>
<td>6</td>
<td>-General Past ‘PST’ (see Chapter 10, §10.1)</td>
<td>-Vp</td>
</tr>
<tr>
<td></td>
<td>-Immediate Future ‘IM,FUT’ (see Chapter 10, §10.1)</td>
<td>-min</td>
</tr>
<tr>
<td></td>
<td>- Future ‘FUT’ (see Chapter 10, §10.1)</td>
<td>-bip</td>
</tr>
<tr>
<td>7</td>
<td>-Negation ‘NEG’ (see Chapter 12)</td>
<td>-kan</td>
</tr>
<tr>
<td></td>
<td>-Subordinator ‘SUBR’ (see Chapter 13)</td>
<td>-ni ~ -nit</td>
</tr>
<tr>
<td>9</td>
<td>-Dubitative ‘DUB’ (see Chapter 10, §10.5)</td>
<td>-hip</td>
</tr>
<tr>
<td></td>
<td>-Telic progressive ‘TEL,PROG’ (see Chapter 10, §10.2)</td>
<td>fɨʔɨ</td>
</tr>
<tr>
<td></td>
<td>-Frustrative ‘FRUST’ (see Chapter 10, §10.5)</td>
<td>jɨʔ</td>
</tr>
<tr>
<td>10</td>
<td>= Declarative ‘DECL’ (see Chapter 10, §10.4)</td>
<td>= na</td>
</tr>
<tr>
<td></td>
<td>= Interrogative ‘INTERR’ (see Chapter 10, §10.4)</td>
<td>= nit</td>
</tr>
</tbody>
</table>
Table 8.4 Morphemes of the verb word (continued)

<table>
<thead>
<tr>
<th>Morpheme Slot</th>
<th>Morpheme gloss/function</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>= Reported Evidential ‘REP.EVID’ (see Chapter 10, §10.6)</td>
<td>= wiṭ</td>
</tr>
<tr>
<td>= Inferred evidential ‘INF.EVID’ (see Chapter 10, §10.6)</td>
<td>= ta</td>
<td></td>
</tr>
<tr>
<td>= Emphasis ‘EMPH’ (see Chapter 3)</td>
<td>= tigã</td>
<td></td>
</tr>
<tr>
<td>= Inferred Future Evidential ‘FUT.INF.EVID’ (see Chapter 10, §10.6)</td>
<td>= dê</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>= Frustrative ‘FRUST’ (see Chapter 10, §10.5)</td>
<td>= jiʔ</td>
</tr>
<tr>
<td>14</td>
<td>= Recent Past ‘REC.PST’ (see Chapter 10, §10.1)</td>
<td>= be</td>
</tr>
<tr>
<td>= Remote Past ‘REM.PST’ (see Chapter 10, §10.1)</td>
<td>= hĩ</td>
<td></td>
</tr>
<tr>
<td>= Assertion ‘ASS’ (see Chapter 10, §10.5)</td>
<td>= ka</td>
<td></td>
</tr>
<tr>
<td>= ki</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>= Intensifier ‘INTS’ (see Chapter 3)</td>
<td>= bikã</td>
</tr>
<tr>
<td>= Directional ‘DIR’ (see below)</td>
<td>= buh</td>
<td></td>
</tr>
<tr>
<td>= Different subject ‘D.S.’ (see Chapter 13)</td>
<td>= ṭfâʔ</td>
<td></td>
</tr>
<tr>
<td>= Same subject ‘S.S’ (see Chapter 13)</td>
<td>= nît</td>
<td></td>
</tr>
</tbody>
</table>

Some of the morphemes presented in Table 8.4 above are flexible with regard to the slot within the verb word and can occur in different slots depending on the type of clause. This is the case for the frustrative marker -jiʔ / =jiʔ. When the clause is declarative without being marked for reported evidentiality, the frustrative marker occurs preceding the declarative marker as shown in example (14) below (which is why it is listed in position 10 in Table 8.4 above). When the clause is marked for reported evidentiality, the frustrative marker cannot occur preceding the reported evidential marker = wiṭ; rather, it must follow the marker as illustrated in (15) below, and it functions as a clitic and not as a suffix (which is why it is given also as an enclitic in position 13 on Table 8.4 above).
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(4) \(\text{ɲi} = \text{beh-hin-jiʔ} = \text{na}\)
\[2\text{PL} = \text{go-DES-FRUST = DECL}\]
‘You all wanted to go but couldn’t go’

(5) \(\text{ʔĩ} = \text{tiʔ-tʃǎ̃w-hij-ip} = \text{wit = jiʔ = hĩ}\)
\[3\text{PL} = \text{EVID-stay-arrive-PST = REP.EVID = FRUST = REM.PST}\]
‘They wanted to stay and couldn’t (it is said)’

Another example of a morpheme that occurs in different positions is the same-subject morpheme –nit/=nit. Although this morpheme occurs predominantly in position 8 (as presented in Table 8.4), I have found a few instances in the corpus in which the same-subject marker occurs after the assertion mood enclitic, as in (16). It is not clear why the same-subject morpheme occurs in this position in these examples:

(16) \(\text{bá̃d}-\text{tû} = \text{ka=nit}\)
\[\text{add.onto-hold.vertically = ASS = S.S}\]
\(\text{ʔã=t-hjbi-ɲɨʔ-ɨp=wɨt=hĩ}\)
\[3\text{SG.M} = \text{EVID-arrive.here-stop-PST = REP.EVID = REM.PST}\]
‘he arrived and stopped, and held (the panflute) vertically (against his body)’

I will proceed now to illustrate the use of some morphemes in each of the slots shown in Table 8.4.

**Position 1: Proclitics**

Kakua (virtually always) indexes the subject argument of the clause by means of cross-referencing proclitics (see Chapter 6 for description of subject indexing on the verb and exceptions to its obligatoriness, and Chapter 11 on alignment). These proclitics agree in number and person with the subject argument of the clause, and also in gender for 3rd person singular subjects (often no overt subject NP is needed). Example in (17) below illustrates the use of a 1st person singular subject proclitic with no overt subject noun phrase:

(17) \(\text{baj-ni-bit}\)
\[\text{be.small-ADJVZ-DIM 1SG = know}\]
‘I know a little bit’

**Position 2: Prefixes: evidentiality**

Prefixes encoding evidential and aspeclual meanings occur in the second slot of the verb word. These prefixes cannot occur without a preceding proclitic. One of these second position prefixes is \(t/-ti\)- encodes secondhand evidentiality, expressing
that the statement was not sensed, directly heard, or witnessed by the speaker. This evidential prefix often occurs together with the reported evidential enclitic in the same word (see Chapter 10 for the description of evidentiality in Kakua). An example is given in (18):

18) \( tʃe j k \) \( ?i = t\text{-}\text{beh} = \text{ep} = w\text{it} = h\text{i} \)
   night person 3SG.M = EVID-go-PST = REP.EVID = REM.PST LONG.AGO
   ‘Long ago, a person went out at night (it is said)’

Other meanings that are expressed by prefixes occurring in this slot are: inferred evidentiality \( t/-ta- \), as illustrated in (19) and (20); habitual aspect, as in (21); and non-visual evidentiality (see examples in Section §10.6).

19) \( k\text{awā} = di? \) \( ?i = t\text{-}\text{beh} = \text{hin} = \text{tagā} \)
   burn OBJ 3SG.M = EVID-go-DUB = INF.EVID
   ‘He might have gone to burn (ants)’

20) \( ket \) \( ?i = t\text{-}t\text{ēw} = \text{ep} = t\text{ā} = \text{be} \)
   \( w\text{iapfī} = na = di? \)
   3PL 3PL = EVID-work-PST = INF.EVID = REC.PST
   manioc.field = PL = OBJ
   ‘They worked their manioc fields (it seems)’

21) \( wēm = hē? \) \( ?i = p\text{f} = \text{nawō} = \text{kan} = \text{be} \)
   \( wēm = di? \)
   1SG = INTENS 3PL = HAB-tell-NEG = REC.PST 1SG = OBJ
   ‘They didn’t tell me’ (I assume since they usually don’t tell me)

**Position 3: Prefix: reciprocal and reflexive**

Position 3 can be filled only with the reflexive/reciprocal prefix \( mīk- \). This reflexive/reciprocal prefix can fill the pre-stem position required by verb words without needing to be preceded by a proclitic. Example (22) below illustrates the reflexive/reciprocal prefix being preceded by a proclitic (position 1) and an inferred evidential prefix (position 2):

22) \( ?i = t\text{-}mīk\text{-}pā?=\text{ap} = h\text{i} \)
   3PL = INF.EVID-RFLX/REC-break.in-half-PST = REM.PST
   ‘They broke themselves apart’ (they took different paths by themselves)

The prefix \( mīk- \) ‘RFLX/REC’ in Kakua is the only morpheme that changes the valency of the verb to which it attaches. It serves to encode both reflexive and reciprocal meanings. These are illustrated in (23) for the reciprocal meaning, and (24) for the reflexive meaning of the prefix:
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23) \( fĩ = mĩk - f ṣ = na = ka \)  
\( \text{1PL = REFLEX/REC - find = DECL = ASS relative.VOC} \)  
'We meet each other, my relative!'  

24) \( mā-dūb = hĩ? \)  
\( mĩ = t - mĩk - pūj - ūp = wĩ = be \)  
\( \text{tree-CL:pointed = COM 3SG.F = EVID - RFLX - hit/whip-PST = REP.EVID = REM.PST} \)  
'she whipped herself with a vein (it's said)'  

Whether this prefix expresses reciprocal or reflexive depends on the context. With a singular subject, as in example (25) (see also example (24)), a reciprocal reading is not possible. Verbs with plural subjects, as in (26), on the other hand, can have either a reciprocal or a reflexive meaning. The context determines the interpretation as either one or the other:

25) \( kān = hēʔ \)  
\( ṣā = mĩk - bûd \)  
\( \text{3SG.M = EMPH 3SG.M = RFLX-cut} \)  
'he cut himself'  

26) \( kēt \)  
\( ṭī = t - mĩk - bûd = be \)  
\( \text{3PL 3PL = EVID - RECIP - cut = REC.PST} \)  
'they cut each other' or 'they cut themselves'  

Verbs that include the reflexive/reciprocal prefix can drop the subject proclitic if reference is sufficiently clear from the context, like with other verb forms. This is illustrated in (27) below:

27) \( \text{victor-īʔ } \)  
\( mĩ = bū = hī \)  
\( fĩ = hĩm - ip = hī \)  
\( \text{Victor-POSS house = LOC = REM.PST 1PL = exist-PST = REM.PST} \)  
\( \text{mĩk - wĕʔe = na} \)  
\( fi = tāhāp = hī \)  
\( \text{REFL/RECIP-chat = DECL 1PL = PROG = REM.PST} \)  
'we were at Victor's house, chatting (among ourselves)'  

Additionally, the reflexive/reciprocal prefix can have a use different from the encoding of reciprocal or reflexive meaning. Instead, it can have an intensifying use, similar to 'self' in English. This is illustrated in the following example:

28) \( ma = mĩk - wĕp - hā = na \)  
\( \text{2SG = RFLX/RECIP-be.strong-wake.up = DECL} \)  
'eat your breakfast yourself'  

Position 5: Suffixes: imperatives

Position 5 can be filled by affirmative imperative -\( Û \), the negative imperative -\( kabuhū \), and the imperative on the benefit of someone else -\( ʔabuhū \). The different
imperative suffixes in this slot cannot co-occur. Examples in (29) and (30) illustrate
verbs inflected for imperative mood (for more examples of imperatives, including
the imperative for the benefit of someone else, see Chapter 12):

29) \( ma = jāp-ʧɨ̂ -\text{beh-}\mathbf{-IMP} \)
\( \text{2SG = pass-step.on-go}\)
'walk!'

30) \( ma = tīw-\text{kabuhú} \)
\( \text{2SG = play-NEG.IMP} \)
'Don't play!'

Note that both the imperative and the negative imperative suffixes occur in
final position in the examples presented above. I do not have evidence in my corpus
to tell whether these suffixes can occur together with other suffixes or if their position
is later within the template.

**Position 6. Suffixes: general past, immediate future, and distant future**

Position 6 is filled by suffixes indicating tense distinctions (past, and future). These morphemes are all mutually exclusive. Examples (31)-(32) illustrate these
suffixes. The different tense markers are further described in Section §10.1:

31) \( wā = ?ip \quad ka?=\text{bit} \quad ťã=\text{hīw}-\text{min}=\text{na}=ka \)
1SG = father  tip.of.river-DIM 3SG.M = come-IMM.FUT = DECL = ASS
'My father comes soon from the small river stream'

32) \( wēm=ka \quad wā=tʧǎ̃̀p-\text{bip} \)
1SG = ASS 1SG = pray.on-FUT
'I will pray (make a prayer)'

**Position 7: Suffix: negation**

Position 7 is filled only with the negation suffix -kan/-kap as illustrated in
(33) and (34) below. Example (34) shows how the negation marker occurs after the
general past tense suffix that occurs in position 6:

33) \( kān=\text{diʔ} \quad wā=\text{pī-diw-kan}=hī \)
3SG = OBJ 1SG = HAB-carry-NEG = REM.PST
'I never carried him'

34) \( ?ā=t-tāk-\text{be}-\text{ep-kap}-\text{ta}=\text{be} \)
3SG.M = EVID-scream-grow-PST-NEG = EVID = REC.PST
'maybe he didn’t scream'
Position 8: Suffix: Subordinator

The subordination marker (described in more detail in Chapter 13) occurs suffixed in position 8, preceding dubitative and desiderative suffixes (position 9), the frustrative enclitic (position 10), and the declarative mood marker =na and the interrogative mood marker =nit (position 11). Note that the subordinator suffix –ni ~ -nit, is homophonous with various other forms in Kakua: same subject clitic =nit, interrogative =nit, adjectivizer –ni, agent nominalization –ni, and the collective plural marker –nit.

Examples (35)-(36) below provide illustrations of the use of the subordinator suffix. A more extensive description of this subordinator suffix (and the type of subordinate clause that it serves to indicate) is given in Chapter 13:

35) ʔê=nit, tʃǎ̃ w-hi=nit-hi=jiʔ=na,
    see=S.S  stay-arrive-SUBR-DUB=FRUST=DECL,
    ŋi=t-fwib-dʒap-ɬab-hāw-ap=wi=t=hī
    3PL=EVID-return-pass-go.up-do-PST =REP.EVID=REM.PST
    ‘(they) seeing, they wanted to stay but could not, (so) they returned and continued to go on upriver’

36) katerine  ni=diʔ  ʧi=diʔ  mi=wiʔ-ni=diʔ
    Katherine  opossum=OBJ  pineapple=OBJ  3SG.F=give-SUBR=OBJ
    ŋi=māw-ap=be
    3PL=kill-PST=REC.PST
    ‘they killed the opossum, to whom Katherine had given pineapple’

Position 9: Suffixes: mood

Slot 9 of the verb word is filled by the dubitative suffix. Dubitative is illustrated in (37):

37) ʔi=t-hēmʔ-hip = tagā
    3PL=EVID-eat-DUB = INF.EVID
    ‘perhaps they ate (it looks like it)’

The dubitative marker frequently co-occurs with evidentiality markers (most commonly with the inferred evidential marker. See Chapter 10 for the description of the evidentiality system), and also with the frustrative marker (see example (41) below).
Position 10: Suffixes: aspect and modality

The last suffix positions is filled by the telic progressive aspect suffix -\textit{fɨʔɨ}, indicating that an event is still ongoing but has a terminal point, as shown in (38)-(40), or the frustrative suffix -\textit{jɨʔ} as in (41) below (recall that the frustrative marker can occur as a suffix, but also as an enclitic when the clause contains the reported evidential. See also examples (45)-(46) below. The telic progressive aspect is further discussed in Chapter 10):

38) \textit{hěm} -\textit{fɨʔɨ} = na
eat-TEL.PROG = DECL
‘still eating’

39) \textit{naw} -\textit{fɨʔ} = na
tell-TEL.PROG = DECL
‘still telling’

40) \textit{tʃɨ̂} -\textit{fɨʔ} = na
sit-TEL.PROG = DECL
‘still sitting’

41) \textit{ɲi} = beh-hin-\textit{jɨʔ} = na
2PL = go-DES-FRUST = DECL
‘You all wanted to go but couldn’t go’

Position 11: Enclitics: sentential Mood

Position 11 is filled by enclitics marking sentential (illocutionary) mood. Example (42) shows the interrogative mood marker filling position 11. The declarative mood marker also occurs in this position (see examples (38)-(41)) and is in complementary distribution with the interrogative marker. A more extensive description of these markers is given in Chapter 10 and 12.

42) \textit{tʃãp} -\textit{ni} \textit{ʔã=pĩ} -\textit{h} -\textit{m-hi=ta=nit}
pray.on-ADJVZ 3SG.M = HAB-be/exist-DUB = INF.EVID = INTERR
‘was the shaman always (there)?’

Position 12: Enclitics: evidentiality

In position 12 enclitics encoding evidentiality occur: reported evidentiality marked by =\textit{wɨ}, inferred evidentiality marked by =\textit{ta}, and inferred future evidentiality marked by =\textit{dɛ} (see more in Chapter 15). Examples (43) and (44) illustrate two of the three evidentiality markers that are mutually exclusive in position 12:
Position 13: Enclitics: Frustrative

This position can only be filled by the frustrating enclitic =jiʔ and only if the clause contains the reported evidentiality marker =wit in slot 12. See example (45) below and note that the frustrating enclitic occurs after the reported evidential marker. This order was tested with speakers, who were prompted with the structure in (46), where the frustrating enclitic precedes the reported evidential marker, and judged this as unacceptable.

45) ʔĩ=tiʔ-tʃǎ̃w-hiʔ-ip = wit = jiʔ = hĩ
   3PL = 2ND.HAND-stay-arrive-PST = REP.EVID = FRUST = REM.PST
   ‘They wanted to stay and couldn’t’

46) *ʔĩ=tiʔ-tʃǎ̃w-hiʔ-ip = jiʔ = wit = hĩ
   3PL = 2ND.HAND-stay-arrive-PST = FRUST = REP.EVID = REM.PST
   Intended meaning: ‘They wanted to stay and couldn’t’

Position 14: Enclitics: Tense and mood

This position is filled by three enclitics that cannot co-occur with each other. These enclitics indicate recent past =be ‘REC.PST’, remote past =bɨ ‘REM.PST’, and assertion mood =ka.

There are two forms of the assertion marker. The form =ka of the assertion marker is used as the default. When the event being referred to is marked with the assertion mood and takes place close to the speaker, the default form =ka is used. When the event needs to be specified as taking place at some distance from the speaker, the form =ki is used instead. This deictic distinction is made only by Kakua speakers from Nuevo Pueblo belonging to clans descending from clans in Wacará. The form =ka is not used by Kakua speakers of Nuevo Pueblo, and instead only the form =ki is used with no deictic value.

Example (47) illustrates a statement uttered while the speaker is distant from the event being referred to (the event being that a person is approaching). The clitic is glossed here as ‘ASS.DIST’ assertion distant). In (48), instead, the speaker refers to the same event, but this time it is taking place close to the place where the speaker is uttering the statement. The clitic is glossed here as ‘ASS.PROX’, assertion proximate:
47) \( hɨ̃w = na = ki \)
   come = DECL = ASS.DIST
   ‘(he) comes’

48) \( hɨ̃w = na = ka \)
   come = DECL = ASS.PROX
   ‘(he) comes’

Additional illustrations of this deictic encoding of the forms \( =ka \) and \( =ki \) of the assertion marker are given in (49)-(50). The form in (49) is used as a farewell greeting when the speaker is close to the addressee. The form in (50) is used when the speaker is waving goodbye from a distance to the addressee:

49) \( beh = na = ka \)
   go = DECL = ASS
   ‘I leave’

50) \( beh = na = ki \)
   go = DECL = ASS.DIST
   ‘I leave’

**Position 15: Enclitics: directional, intensifier, and switch reference markers**

The last slot of the verb word may be filled by enclitics encoding several different meanings. These enclitics express additional information to the verb word: the intensifier enclitic \( =biká \) (51); the enclitic \( =buh \) which provides modal information about the clause, glossed here as an action done from far away, as in example (52); and the different-subject enclitic, as illustrated in example in (53). The enclitics occurring in this slot cannot co-occur.

51) \( kǎn = diʔ = jūb \)
   \( kàw = biká \)
   3SG.M = OBJ = INTS
   burn = AT.LAST
   ‘I really burned him (the caiman)’

52) \( kan = diʔ \)
   \( pēa-waʔ - ūb - beh - jūʔ = hī = buh \)
   3SG.M = OBJ
   finish-pull-go.up-go-toss-REM,PST = DIR
   ‘I finished up pulling him out and tossed him down’

53) \( pēa \)
   \( hījbi = na = tfa? \)
   \( māʔ \)
   \( \dot{w}ā = hɨ̃w = bi = na = ka \)
   finish
   arrive.here = DECL = D,S
   \( ?ā = hɨ̃w = bi = na = ka \)
   water
   3SG.M = come-FUT = DECL = ASS
   ‘After finishing, water is going to come (it is going to be raining)’
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In summary, it was shown that Kakua verbal morphology encodes a wide variety of heterogeneous semantic distinctions. Many TAME specifications are encoded by verbal affixes, while others are encoded in clitics that have freedom of host selection, but also often occur on the predicate of the clause in Kakua (see Table 3.2 showing enclitics and their different hosts presented in Chapter 3).

It is important to note that there are a few apparent counterexamples to the morpheme ordering given in the template above. These concern the ordering of the reportative evidential clitic \(=\)wɨt \('\text{REP}'\) and the directional clitic \(=\)buh. Both of these markers have a clear lexical origin, as can be seen in the following examples:

54) \(nāw'-\text{beh} = \text{na} \quad f^*i\text{t} \quad fɨi' = \text{min}-\text{at} \quad hɨdɨn\) \(= \text{di}\)

\(\text{tell-go} = \text{DECL} \quad \text{1PL} \quad \text{1PL.POSS} = \text{chat-NMLZ} \quad \text{JUST} \quad \text{3SG.M} = \text{OBJ}\)

\(\text{wit}[…] \quad m_i = t-\text{na}\)?

\(\text{command} \quad 3\text{SG.F} = \text{EVID-want}\)

'telling just in our language, (of that) he’s been commanded… (that’s what) she wants’

55) \(ʔ=\text{jōb}-\text{buh}-\text{pah-} = \text{wit} = hɨ\) \(\text{bikā}\)

\(3\text{SG.M} = \text{be.true-do.from.far-lie.on.floor-PST} = \text{REP.EVID} = \text{REM.PST} \quad \text{EMPH}\)

'(the jaguar) he fell on the floor’ (and died finally).

Example (54) shows the use of \(\text{wit}\) as a lexical verb with the meaning 'command', while (55) illustrates the use of \(\text{buh}\) as a verb meaning 'do from far'. In (54) \(\text{wit}\) must be a lexical verb as it occurs with a temporal suffix, while in (55) \(\text{buh}\) must be a lexical verb as it is part of a serializing construction. In some cases the two clitics seem to preserve part of their lexical behavior. This is shown in the following example:3

56) \(tfūh-\text{at} = tɨ, \quad mɨi = wāw-jǔk = dɨ\)

\(\text{bath-NMLZ} = \text{THEN} \quad 3\text{SG.F.POSS} = \text{head-hair} = \text{OBJ}\)

\(būd-hēnā' = \text{buhu} = \text{wit} = hɨ\)

\(\text{cut-count} = \text{FROM.FAR} = \text{REP.EVID} = \text{REM.PST}\)

'(they) after bathed her, they cut her hair’

In this example the two elements \(\text{buhu}\) and \(\text{wit}\) are followed by the remote past clitic \(= hɨ\), which shows that they are not in their regular position: \(\text{wit}\) (position 12) should not be preceded by \(\text{buhu}\) (position 15), and \(\text{buhu}\) (position 15) should not be followed by \(= hɨ\) (position 14). Examples like these have a straightforward

3 Note that a vowel is inserted in the form \(\text{buh}\) as a phonetic strategy to avoid consonant clusters, as described in Chapter 2.
explanation if we assume that in these cases they maintain their lexical behaviour as verbs, and can thus be followed by suffixes and clitics as if they were verbs. In the case of (56) both verbs then occur in a serializing construction. It is clear that in the case of these two clitics the grammatical meaning of REPORTATIVE and ACTION.FROM.FAR are close to the lexical meaning of a verb of commanding and a motion verb, respectively. Note also the following example where buh takes verbal morphology, just as any verb stem would. Note also that in the first occurrence of buh it is not clear whether it functions as a lexical verb (a stem in a serializing construction), or as a directional enclitic:

57) \[ \text{kan} = \text{na} \quad ?\tilde{\text{a}} = t-\tilde{\text{j}}u?-\text{buh} \]

DEM.PROX = DECL 3SG.M = EVID-toss-FROM.FAR

\[ ?\tilde{\text{a}} = t-\tilde{\text{j}}u?-\text{buh-up} = w\tilde{\text{i}} = \tilde{\text{h}}i \]

3SG.M = EVID-toss-from far-PST = REP.EVID = REM.PST

‘there he tossed from far away (it is said)’

The following example illustrates buh occurring as an enclitic in position 15, with the semantics of directional ‘DIR’ as shown in Table 8.4 above:

58) \[ \text{waj-} ?\tilde{\text{a}}\tilde{\text{b}}-\text{beh}-j\tilde{\text{u}}? = h\tilde{\text{i}} = \text{buh} \]

pull-go.up-go-toss = REM.PST = DIR

‘(I) pulled him up and tossed him’ (context: pulling up a caiman from a deep hole in the water).

Additional description and examples illustrating wít are given in Section §10.6.
Chapter 9
Verb serialization

9.0 Introduction

One of the many features identifying the Vaupés as a linguistic area is the serialization (also referred to as compounding) of verbs to express complex predicates (c.f., Gómez-Imbert & Ospina 2013, Aikhenvald 2006; Epps 2007; Gómez-Imbert 2007). This serialization of verb roots in Kakua is a highly productive semantic, lexical, and grammatical strategy for sorting the information according to the way it is perceptually conceived.

Many verb forms in Kakua narratives contain more than one root. A rough count of predicates in 10 texts including narratives and conversations showed that 28% of all predicates contain more than one verb root. Up to five verb roots can combine forming a complex predicate, as in the following example.

1) mâ-naʔ wâ = ṇ̃ âg = be niʔut = heʔ
   tree-CL:tree.like 1SG = stab = REC.PST everything = INTS

   ʔâb-ʔâb-ʔâb-ʔâb-ʔâb = be
   hold-go.up-go-chase/follow-be.last = REC.PST

   ‘I stabbed (the animal) with a stick and brought him up out and chased him to the end’

This chapter describes the construction of complex predicates in Kakua. These complex predicates differ widely in their degree of lexicalization, going from highly lexicalized collocations of verb roots, semi-conventionalized, mostly productive, and entirely novel combinations of roots.

Combinations of roots like the ones shown in (2)-(3) below are conventionalized combinations with fairly stable interpretations by speakers (and in this sense somehow idiomatic). A combination of roots like the one presented in (1) is analyzed here as an illustration of the other end of the spectrum (i.e., highly productive, novel combinations of roots). The latter is a very common strategy used in Kakua as a means to express sequences of conceptually linked events. This type of combination of roots is labeled here as a serial verb construction.

2) bud-tüj
   cut-step.on
   ‘block the way’
3)  jāj-niʔ-beh
    shut.up-stop-go
    ‘repent/adjudge from talking’

This strategy of combining roots to either form highly lexicalized (idiomatic) meanings or to express the relationship between events that are conceptually more closely linked than, for example, coordinated events, is described in this chapter. While the main focus of the description is on how to identify these serialized constructions and their morphosyntactic properties, as discussed in section §9.1, a separate subsection, §9.2, presents the more lexicalized end of the spectrum of serialized verbs. A brief description is given in §9.3 regarding the ordering of verb roots in a serialized construction. This chapter ends with a description of how serialization of verbs is different from coordination.

9.1  Serial verb constructions

Serial verb constructions (henceforth SVCs) are constructions consisting of two or more verb roots in sequence such that they represent one single clause. In such a construction, there should be no other element (grammatical nor lexical) in between the verb roots.

Haspelmath (2014) has proposed a series of descriptive generalizations for SVCs across languages. Loosely following these, I propose in the following list the defining properties specific to SVCs in Kakua:

i)  Components of a SVC in Kakua may not be negated separately.

   Components of a SVC in Kakua have the same tense value and may not be
   given different tense values individually.

   Components of a SVC in Kakua have the same aspectual value and may not
   be given different aspectual values individually.

   Components of a SVC in Kakua have the same mood value and may not
   be given different mood values individually.

   Components of a SVC in Kakua have the same evidentiality value and may
   not be given different evidentiality values individually.

   Components of a SVC in Kakua share the same arguments

I proceed now to provide examples in order to illustrate each of these properties of SVCs in Kakua:

i)  Components of a SVC in Kakua may not be negated separately:

    The scope of negation in Kakua is the entire clause, and no element smaller
    than a clause may be negated. In SVCs then, the scope of negation runs over all
elements (all verbs and other morphology) within the SVC, rather than over one single verb of the SVC. See examples (4)-(5) below:

4) \text{měm=dìʔ nım̥=hêʔ ma=ḥef̱-jap-bak-kan=niŋ}
\begin{align*}
1\text{SG}=\text{OBJ} & \quad \text{be.under}=\text{INTS} \\
2\text{SG}=\text{know-pass-emerge-NEG}=\text{INTERR}
\end{align*}
\quad \text{‘won’t you know (see what’s on the other side), won’t you pass, won’t you exit to the other side (if you go) underneath me?’}

5) \text{wã=pĩ-hêj-wêʔ e-kan}
\begin{align*}
1\text{SG}=\text{HAB-know-talk-NEG}
\end{align*}
\quad \text{‘I don’t know, don’t talk’}

If one verb of the construction were to be negated separately, the resulting interpretation of the utterance changes drastically. Compare (4) above to the elicited variant in (6) below:

6) \text{měm=dìʔ nım̥=hêʔ ma=ḥef̱-kan jap-bak=niŋ}
\begin{align*}
1\text{SG}=\text{OBJ} & \quad \text{be.under}=\text{INTS} \\
2\text{SG}=\text{know-NEG} & \quad \text{pass-emerge}=\text{INTERR}
\end{align*}
\quad \text{‘you don’t know, can (you) pass to the other side (if you go) underneath me?’}

ii) \text{Components of a SVC in Kakua have the same tense value and may not be given different tense values individually.}

The tense suffixes in Kakua are past – \text{Vp}, immediate future – \text{min}, and general future – \text{bip} (see also Chapter 8 for verb morphology in Kakua and Chapter 10 on tense, aspect, mood, and evidentiality). These markers are always suffixed closest to the verb root of the clause (see Chapter 8 for a full template of verb morphology). If in a SVC, the tense suffix will attach to the last verb root in the construction. Crucially, the scope of tense is over the entire set of serialized verbs. See examples (7)-(8) below:

7) \text{tʃe̱j-kif̱-wã=dìʔ pi=phwjak-bàm̥-ep}
\begin{align*}
\text{night-ant-PL}=\text{OBJ} & \quad 2\text{PL}=\text{put.inside-eat-PST}
\end{align*}
\quad \text{‘you all put inside and ate the night ants’}

---

\footnote{Note that the English translation given in (5) above might suggest that the verbs are negated separately, and not as a SVC as a whole. The construction in Kakua, however, is conceived as a SVC even though the translation in English fails to express this. Negating each of the verbs in the construction separately would require the overt marking of the negation suffix -\text{kan} to occur on each of the verb stems resulting in a combination of clauses (see §9.3 below for discussion of SVC and coordination):
\begin{align*}
\text{(i) wã=pĩ-hêj-kan wã=pĩ wêʔ e-kan}
1\text{SG}=\text{HAB-know-NEG} & \quad 1\text{SG}=\text{HAB-talk-NEG}
\end{align*}
\quad \text{‘I used to not know, and used to not talk’}
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8) \( kān = di? \quad ni = \text{f}\text{-}\text{f}-\text{běh-běh}=\text{na}=\text{ka} \)

3SG.M = OBJ 2PL = be.first-take-go-FUT = DECL = ASS

‘you will take him first’

Component of a SVC in Kakua have the same aspectual value and may not be given different aspectual values individually.

Aspectual distinctions in Kakua are marked by means of an affix or a clitic/particle (the prefix \( pǐ \) ‘habitual’, the telic progressive suffix \(-fɨɁɨ\) ‘TEL.PROG’, and the progressive clitic/particle form \( \text{ʧãhãp} \) ‘PROG’. See Chapter 10, §10.3, for a discussion of the progressive occurring as encliticized and ‘detached’ form). In a SVC, aspectual values have scope over all the elements of the construction. An illustration is given in example (9) below. More examples illustrating the different aspect markers in Kakua are found in Chapter 10.

9) \( wã=nɨ\text{-}m-bit\quad mi=pǐ\text{-}hɨ̍jbi-hɨ̍j=\text{na}=\text{ka} \)

1SG = daughter-DIM 3SG.F = HAB-arrive here-cry = DECL = ASS

‘my little daughter always arrives here crying’

Component of a SVC in Kakua have the same mood value and may not be given different mood values individually.

A verb word in Kakua is usually formed by adding to the verb root(s) some additional verbal morphology, most commonly a mood marker or a cross-referencing proclitic. Example (10) illustrates two instances of mood marking occurring only once in a SVC, and example (11) illustrates a directional enclitic in a SCV:

10) \( \text{siɛt}=\text{jùb}\quad \text{beh-fǐ}=\text{na}\quad \text{pi } \text{ʔãb-pkð-dej-běh}=\text{na} \)

seven = EMPH go-be.first = DECL TERM go.up-go.around-go.down-go = DECL

\( \text{bīd}=\text{na}\quad \text{pkð}=\text{na} \)

search = DECL go.around = DECL

‘I went first thing at seven to… went up and around and back down, (went) searching, (went) around’

11) \( \text{dik}-\text{būd-jù}=\text{buh}\quad \text{ʔãj}=\text{pǐh-jāp-at}=\text{di?} \)

break-cut-toss.away = DIR 3SG.M.POSS = tail-pass-NMLZ = OBJ

‘(I) broke, cut and tossed away the tip of his tail’

Component of a SVC in Kakua have the same evidentiality value and may not be given different evidentiality values individually.

Kakua displays a complex system of evidentiality, and many markers (prefixes and enclitics), encode different evidentiality values. In SVCs, one evidentiality value has scope over all the elements of the clause, and no additional
or different value may be given to its elements individually (see Section §10.6, on evidentiality):

12) \( \text{ʔã} = t\text{-}na?\text{-wǎd-hɨ́w} = \text{wit} = \text{ʧa}? \)
\[ 3\text{SG.M} = \text{EVID-jump-enter-arrive} = \text{REP.EVID} = \text{D.S} \]

\( \text{ʔǎ} = \text{wam-da?}-\text{be}? \quad \text{tak} = \text{ʧǔb} \)
\[ 3\text{SG.M.POSS} = \text{pot-CL:round-AUG} \quad \text{half} = \text{INTS} \]

‘he (brother in law) entered jumping right in the middle of his (the kuʔʧílu’s) pot (I was told)’

13) \( \text{makáʔ?} = \text{bāb} = \text{ʧā}? \quad \text{minf-tʃā}? \)
Bumblebee 3\text{PL} = \text{drink} = \text{D.S} \quad \text{chat-D.S} \]

\( \text{ʔǎ} = \text{ta-ʧj-huj-tʃid-beh-hkd-ip} = \text{tagá} \)
\[ 3\text{SG.M} = \text{EVID-be.good-listen-work-sit-go-turn.around} = \text{INF.EVID} \]

‘Bumblebee should have been drinking with them while they were chatting and he should have been sitting and understanding the work of the others’

14) \( \text{kăn} \quad \text{fā = bā} \)
\[ 3\text{SG.M} \quad \text{down.river} = \text{EMPH} \]

\( \text{ʔǎ} = \text{tj-mēn-hāb-beh-min} = \text{tagá} \)
\[ 3\text{SG.M} = \text{EVID-to.paddle-go.down.river-go-IMM.FUT} = \text{INF.EVID} \]

‘it seems he is going to paddle down river’

vi) Components of a SVC in Kakua share the same argument

Argument marking in Kakua is achieved by two different strategies. Case marking, for all arguments other than the subject of a clause, and subject indexing on the verb by cross-referencing proclitics (see Chapter 6 on argument marking).

All the verbs in a SVC always share the same arguments in the clause, i.e. the subject and objects, if present, see example (15) below. Even when no cross-referencing proclitic is present (when its referent was previously established in the discourse, one of the exceptions allowing for the omission of subject indexing on the verb; see Chapter 6 and Chapter 11), the verbs in the serialized construction have the same arguments. In example (15), ‘he’ is the subject of both ‘burn’ and ‘give’ and ‘tobacco’ is the object of both of these verbs.

\[ \text{Causative relations where this generalization might not apply, have not been explored. In Hup, for example (Epps 2008 for SVC in Hup), a serialization involving a transitive verb and an intransitive verb root like, e.g., ‘step.on-die’, results in a causative SVC meaning ‘step on ENTITY so that it died’.} \]
15) \( \tilde{ʔ}i \tilde{ʔ} = \tilde{h}i = \tilde{d}i \)
\[ \text{3PL.POSS = tobacco = OBJ} \quad \text{burn-give = DECL = REP.EVID = REM.PST} \]

\( \text{kān = } \tilde{d}i \)
\[ \text{3SG.M = OBJ} \]

'(he) burnt and gave their tobacco to him'

9.2 The more lexicalized end of the spectrum

Some SVCs can be identified as being conventionalized forms to express a predetermined lexicalized meaning. Presumably, these combinations or sequences of verb roots are learnt as a unit by speakers, conceived as one lexical element. This type of SVCs rarely has more than three verb roots. Examples (2)-(3) in the introduction to this chapter serve to illustrate this type of conventionalized idiomatic SVCs.

The etymology of the elements in SVC of this type is not always transparent. Examples (16)-(18) below illustrate such cases, where only some of the elements in the SVC can be identified as a verb root, whereas at least one element remains unglossed, and unidentified. These could also represent a case of the lexicalization level of these SVCs in which maybe the unidentified element was formerly a verb root, and in a lexicalization process it gradually lost its status as a verb root.

16) \( \tilde{d}uf\tilde{w}i\tilde{h}pi \)
\[ \text{du-t\tilde{w}i-jit} \]
\( ?-\text{return-stop} \)

'step backwards'

17) \( \tilde{w}i\tilde{n}b\tilde{h}b\tilde{i} \)
\[ \text{win-beh-bi} \]
\( \text{die-go-?} \)

'fade'

18) \( \tilde{t}\tilde{f}u\tilde{j}\tilde{i}\tilde{\tilde{e}}n \)
\[ \text{t\tilde{f}u\tilde{j}-?\tilde{e}n} \]
\( ?-\text{see} \)

'stand up to look'

The semantics of the verb roots in these highly lexicalized SVCs are heterogeneous. These can be action/motion or stative verbs. This suggests that virtually any SVC (even the very novel ones presented above) can, at some point, become lexicalized and form new (idiomatic) meanings.

These type of lexicalized SVCs are semantically different from the highly productive SVCs presented above. They are different in that SVCs are used as a strategy to express a sequence of events that are conceptually linked (see §9.1 above),
whereas the conventionalized SVCs presented here form a lexicalized expression of a predicate (also, the compounding of verb roots can form nouns; see Chapter 4 on nominalization strategies), and the expression of a sequence of events is rather lost (or obscured perhaps), by the ‘new’ lexical meaning of the conventionalized sequence of verbs.

9.3 Order of verb roots in a SVC

A further interesting aspect regarding the serialization of verb roots concerns the order in which the verb roots occur within the SVC. It is known from other languages that the sequencing of verb roots in a SVC tends to be tense-iconic (c.f., Haspelmath 2014:13; Diessel 2008; Aikhenvald 2006:16, 21, 28-29; Durie 1997:§4; Givón 1991). Likewise, the verb roots of a SVC in Kakua are ordered in such a way that the verb expressing the earlier event of the sequence is placed at the beginning of the SVC and is then followed by verb roots expressing later events, in chronological order. Example (19) below illustrates this:

\[ \text{ʔä = f;t̪b-hɨ̃̌w'-pàʔ-hɨj = na} \]
\[ \text{3SG.M = return-come-float-arrive = DECL} \]
\[ \text{‘he came back, floated and arrived’} \]

In example (20) the crying of the child is presented as preceding the arrival, and therefore the verb root \( hɨj \) ‘cry’ precedes the verb root \( hiği \) ‘arrive here’ in the SVC. This does not imply that the TAME values are different for the roots involved in the SVC. The TAME values have scope over all of the roots in the construction.

\[ \text{webit-wili \ mi = hɨj-hɨği = na = ka} \]
\[ \text{child-CL.fem \ 3SG.F = cry-arrive.here = DECL = ASS} \]
\[ \text{‘the girl crying arrives here’} \]

Many other functions and meanings of SVCs in Kakua remain to be further explored in future research. In many other Vaupés languages, for example, in addition to lexicalized SVCs and temporally iconic sequences of events, SVCs also serve to express causative relations and simultaneous events. Furthermore, Aikhenvald (2003, 2006:178-201) describes for Tariana (Arawak language spoken in the Vaupés area) that certain orderings of the elements of a SVC appear to be non-iconic with regard to temporality. Thus, the careful focus on SVCs in Kakua show a promising, very fructiferous aspect of the language that should be further explored.
9.4 Serial verb constructions versus coordination of clauses

Although many examples of SVCs are translated as coordinated constructions in English (and Spanish as well), SVCs and coordination are clearly formally different in Kakua. While SVCs present a string of verb roots having the same tense, aspect, mood, evidentiality values (TAME henceforth), and negation values marked only once, coordination in Kakua is formed by the juxtaposition of verbs, where each verb represents a coordinated event and is marked separately for TAME and negation values.

See examples (21)-(25) below on coordinated constructions, and compare these to those shown for SVCs throughout the previous subsection. Note that each coordinated event takes TAME or negation individually, even when the values are the same for the entire construction. Example (21) shows a sequence of coordinated events. Note that each predicate bears its own marking. Verb roots are given in boldface:

21) kàn = na ʔà = t\-\textit{big-jak} ʔà = t\-\textit{tfàw-be\-pa\-a-bhàw/}
\begin{align*}
\text{there = DECL} & 3\text{SG = EVID-\textit{fall-put.inside}} 3\text{SG = EVID-\textit{smoke-grow-jump-come}} \\
\text{ʔà = t\-\textit{ʔìg} = na = wit = hì} \\
\text{3SG = EVID-\textit{ignite} = DECL = REP.EVID = REM.PST} \\
\text{‘(The firefly) fell inside (the firewood) and let out smoke and it lit the fire’}
\end{align*}

Similarly, consider the examples in (22)-(23) below, illustrating coordination constructions, in which the SVC clauses are marked individually for TAME. Note that although the subject argument is not indexed in both predicates of the two coordinated SVCs in examples in (22) and (23) (because of discourse related criteria, see Chapter 6), unless specified with different or same subject markers, the coordinated predicates share the same argument:

22) ?ìdji = bit younger.brother = also
\begin{align*}
\text{ʔà = t\-\textit{hùbì-nì?-ip = wit = hì}} \\
\text{3SG.M = EVID-\textit{arrive.there-stop-PST} = REP.EVID = REM.PST} \\
kàn pèp = hè?  \quad \textit{wàt\-pàw-ʔìb\-beb\-cp = wit = hì} \\
\text{3SG = EVID-\textit{be.near = INTS} spout-run-go.up-go-PST = REP.EVID = REM.PST} \\
kàn = na  \quad \text{min = ti} \\
\text{3SG = DECL like.this = INTS} \\
\text{‘The younger brother went to where the older brother was and he grew fast to the same stature’}
\end{align*}
See example (25) for a coordinated expression of example (24):

24) \( wā = pī-hēf'-wēʔe-kan \)

\( 1\text{SG} = \text{HAB-know-talk-NEG} \)

'I don’t know nor talk’

25) \( fwi = hēf'-kan = ka \)

\( f'ī = beh-kan = ka \)

\( 1\text{PL} = \text{know-NEG} = \text{ASS} \quad 1\text{PL} = \text{go-NEG} = \text{ASS} \)

'we don’t know and we don’t go’
Chapter 10
Tense, aspect, mood and evidentiality

10.0 Introduction

Situating an event or state in time, both externally and internally (via expression of tense and aspect, c.f., Comrie 1976, 1985; Dahl 1985; Bhat 1999; Timberlake 2007), and expressing the different perspectives of the speaker toward the event (via expression of mood, c.f. Bhat 1999; Hengeveld 2004; Timberlake 2007), is achieved in Kakua by verbal morphemes. Some of these can also occur with other hosts, as will be indicated below for each of the morphemes.

This chapter deals with the description of the semantics encoded in the different morphemes that serve to express the speaker’s attitudes towards events or states, and the general means to express location in time in Kakua. The meanings involved are treated under the headings of tense, aspect, mood, and evidentiality (henceforth TAME).

Tense distinctions are described in §10.1. The general characteristics of aspectual distinctions in Kakua are described in §10.2. The categories of mood are described in §10.3. Section §10.4 and §10.5 focus on the specific characteristics of illocution and modality, respectively. Finally, evidentiality is dealt with in section §10.6 of this chapter.

10.1 Tense

10.1.1 Introduction

Kakua differentiates between general past, remote and recent past tenses, and between immediate and general future tenses. Table 10.1 below gives the forms and semantics of the markers for these distinctions:
### Table 10.1 Tense markers in Kakua

<table>
<thead>
<tr>
<th>FORM</th>
<th>SEMANTICS</th>
<th>GLOSS</th>
<th>HOST</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Vp</td>
<td>Suffix marking the general past. It combines with remote or recent past markers which add further tense specifications.</td>
<td>‘PST’</td>
<td>Verb stem</td>
</tr>
<tr>
<td>=be</td>
<td>The situation or event occurred up to a year ago. It ranges from a few minutes to about one year ago.</td>
<td>‘REC.PST’</td>
<td>Various hosts</td>
</tr>
<tr>
<td>=hi</td>
<td>The situation or event occurred more than one year ago.</td>
<td>‘REM.PST’</td>
<td>Various hosts</td>
</tr>
<tr>
<td>-bip</td>
<td>The situation or event will occur at any future moment in time other than immediately after the speech act.</td>
<td>‘FUT’</td>
<td>Verb stem</td>
</tr>
<tr>
<td>-min</td>
<td>The situation or event will occur immediately, or at most within the next few hours, after the speech act.</td>
<td>‘IMM.FUT’</td>
<td>Verb stem</td>
</tr>
</tbody>
</table>

The definition of tense followed here to describe the different tense markers in Kakua is that given in Comrie (1985:9ff), where tense refers to the “expression of location in time” through grammatical means. Likewise, the description of tense specifications presented here for Kakua refers to the grammatical (or marginally grammaticalized, in the case at least of the recent past clitic) morphemes that serve to situate an event in time.

Tense distinctions in Kakua texts are not obligatorily marked, especially once the location in time of the event has already been established in the discourse. Tense distinctions can also commonly be inferred from other distinctions regarding time or the speaker’s attitude towards the event. This is to say, it is not uncommon in Kakua to find aspectual or modal distinctions without any tense marking at all.
10.1.2 General past -Vp

The suffix -Vp is here described as a ‘general past’ marker because it encodes the semantics of a situation that occurs at a time prior to the time of speech. Additionally, Kakua makes deictic time distinctions in past tenses, i.e. the recent past =be (§10.1.2) and the remote past =hĩ (§10.1.3). These enclitics usually occur in addition to the general past suffix (though not obligatorily). The general past suffix immediately follows the verb stem, and, unlike the other markers of past distinctions, occurs with verb stems only. The suffix itself has an unspecified vowel, where the identity of the vowel in the past marker is copied from the vowel of the verb stem to which it attaches. Examples of this marker combining with the recent past =be are presented in (1)-(3) below:

1) fîn  fî = ?ên-ep = be
   yesterday 1PL = see-PST = REC.PST
   ‘we saw it (in the movie) yesterday’

2) bĩʔ  bĩʔ  ?ë = t-him-ip = wiʔ = be
   otherother 3SG,M = EVID-exist-PST = REP,EVID = REC.PST
   ‘there was another one (of them, there)

3) kānʔ-jād  nāwʔ = na = be  bikpej/kannit
   3SG,F -woman tell = DECL = REC.PST
   three

   nāwsp = ta = be
   kill-PST = INF,EVID = REC.PST
   ‘(they) killed three, the woman said’

Note that this past marker cannot occur with e.g., future suffixes -bip ‘FUT’ and -min ‘IMM,FUT’, nor with adverbials indicating future reference. Neither is a construction such as the elicited example shown in (4) below, involving present time reference and the general past marker -Vp, accepted by speakers:

4) *bĩ  fî = ?ên-ep = na
   today/now 1PL = see-PST = DECL
   intended meaning: ‘now we see it’

Examples of this marker combining with the remote past =hĩ are presented in (5)-(6) below:
5) **kan-nin** \( ?\ddot{ã} \text{ = beh-ep} \) \( \text{pĩnaʔ} \) \( \text{man’} \),

DEM,PROX-IMM,DEM  3SG.M = go-PST  POT  meanwhile

\( ?\ddot{ã} \text{ = ta-him-\text{-ip}} \text{ = wit} \text{ = hř} \)
3SG.M = EVID-be-PST = REP,EVID = REM,PST

‘while he (the person) was going on this side here, he (the jaguar) was (there)’

6) **Mitú = bù** \( \text{fĩ = beh-ep = hř} \)

Mitú = LOC  1PL = go-PST = REM,PST

‘we went to Mitú’

Note that it can also occur without any further specification of deictic time (i.e., without a specification for recent or remote past). Examples (7)-(9) illustrates this (see also example (5) above):

7) **ʔĩʔ=kêd** \( \text{-at=di} \) \( \text{ʔ ha ̃̂ʔ-têw-\text{-beh-ep}} \)

3PL.POSS = to.urinate-NMLZ = OBJ  to.cover-work-go-PST

‘they went on covering their genitals’

8) **těw-jap=ap=buh**

shot.darts-pass-PST = DIR

‘(he) shot darts while passing (at the jaguar from far away)’

9) **mi** \( \text{f’i=pĩ-pin-beh-ep=jāb} \)

wild.pig  1PL = HAB-chase-go-PST = INTS

‘we went chasing wild pigs, indeed’

### **10.1.3 Recent past = be**

The enclitic = be indicates that the event or state encoded by the predicate occurred at a past moment no more than one year ago. This time range, however, is not very strict, e.g. when it’s being used in relation to some other longer time period. In most cases, the recent past enclitic (like the remote past enclitic) co-occurs with the general past suffix \( –\text{Vp} \) (as in examples (1)-(3) above). However, sometimes the recent past enclitic also occurs without the general past suffix, and in elicitation both options were accepted. The rules allowing for the omission of the general past suffix are still unclear. An example of the recent past enclitic occurring without the general past suffix is given below. Note that the verb \( ?\ddot{ã} \) ‘dream’ is followed by the declarative enclitic, and the general past is not suffixed to the verb. Although examples of this type are not as frequent as the co-occurrence of the general past + recent past markers, they are not rare either.

10) **hiwi=di?** \( \text{wā = ?\ddot{ã}?=na = be} \)

tapir = OBJ  1SG = dream = DECL = REC,PST

‘I dreamed about a cow (tapir)’
As shown in Chapter 3, the criteria for clitichood in Kakua have to do with freedom of host selection. Example (10) shows the attachment of the recent past enclitic to a verb, while the examples below show its occurrence with pronouns:

11) \[ \text{měm}=\text{nit}=\text{be} \quad \text{ma}=\text{ʔɨ̃̂} \quad \text{b}-\text{ɨ} \quad \text{p} \]
   \[ \text{SG}\text{=INTER}=\text{REC}\text{.PST} \quad \text{SG}\text{=}\text{take.out-PST} \]
   \[ \text{wi} \text{ʔ}=\text{ɲɨ} \quad \text{d} \quad \text{ɨ̌} \quad \text{p}=\text{di} \]
   \[ \text{1SG.PASS=}\text{wasai.fruit=}\text{OBJ} \]
   \[ \text{‘did you take my wasai?’} \]

12) \[ \text{wěm}=\text{be} \quad \text{ʔɨ̃̂} \quad \text{b}-\text{ʔ} \quad \text{-w} \quad \text{ɨ̌} \quad \text{-ɨ} \quad \text{p}=\text{be} \]
   \[ \text{1SG=}\text{REC}\text{.PST} \quad \text{take.out-give-PST=}\text{REC}\text{.PST} \]
   \[ \text{nɪwə} \quad \text{baj-ni-ma} \text{ʔ}=\text{di} \]
   \[ \text{granddad.VOC} \quad \text{be.small-ADJVZ-CL}:\text{liquid=}\text{OBJ} \]
   \[ \text{‘I took (the wasai) and gave to my daughter, granddad!’} \]

10.1.4 Remote past = \text{hĩ}

The enclitic = \text{hĩ} indicates that the event or state encoded by the predicate occurs at a past time moment that is considered remote. Usually, whenever the event or state occurred more than one year before the time of speech, the remote past enclitic is used. The remote past enclitic is commonly used in narratives of myths of origin, or in bedtime stories for children. But it is also used when referring to a time in the past of a person’s life. Some examples are presented below:

13) \[ \text{ʧʃ}=\text{bit} \quad \text{ʔ}=\text{t-bibuc-ʰup}=\text{wɨt}=\text{hĩ} \]
   \[ \text{manioc.bread=}\text{ALSO} \quad \text{3PL=}\text{EVID-have-PST=}\text{REP.EVID=}\text{REM.PST} \]
   \[ \text{‘they had manioc bread as well’} \]

14) \[ \text{ʔw-ɨp}=\text{wit}=\text{hĩ} \quad \text{kɛt}=\text{hĩ} \quad \text{wɨptʃĩ}=\text{di} \]
   \[ \text{sleep-PST=}\text{REP.EVID=}\text{REM.PST} \quad \text{3PL=}\text{COM} \quad \text{hut=}\text{OBJ} \]
   \[ \text{‘(they) slept with them in the hut’} \]

15) \[ \text{victor-ʔ}=\text{mǐ}=\text{bǔ}=\text{hĩ} \quad \text{fĩ}=\text{him-ɨp}=\text{hĩ} \]
   \[ \text{Victor-POSS} \quad \text{house=}\text{LOC=}\text{REM.PST} \quad \text{1PL=}\text{exist-PST=}\text{REM.PST} \]
   \[ \text{‘we were at Victor’s house’} \]

As in the case of the recent past enclitic, the remote past enclitic = \text{hĩ} occurs in the majority of cases together with the general past suffix. However I have also found cases in which the remote past enclitic does not co-occur with the general past marker (although even fewer cases than recent past enclitics without general past suffixes). Examples of this are shown below (see also (15) above):
16)  $tɨ̃̂ = $di $mah = na = wit = hɨ̃̂ $kɨt$
    fire.wood = OBJ  2SG = collect-IMP  say = DECL = REP.EVID = REM.PST  3PL
    ‘collect firewood!, they told her’

17)  $tâʔ = $na $ʔã = pɨ-hɨm = na = hɨ̃$  
    tree.sp-CL:tree.like  3SG.M = HAB-exist = DECL = REM.PST
    ‘there was always a tree (wood for making blowgun mouthpieces)’

18)  $nin = na  
    IMM.DEM = DECL  bring = REM.PST
    ‘(they) brought (it) here’

As in the case with the recent past enclitic, the remote past enclitic can occur
with hosts other than the predicate. Example (19) shows the enclitic (together with
the reported evidential = wit) encliticized to a pronoun:

19)  $ket = wit = hɨ̃$  
    3PL = REP.EVID = REM.PST  be.first-arrive = S.S
    ‘they were the first who came’

10.1.5 Future -bip

The suffix -bip indicates situations that are to occur in the future. As with the
distinctions of past tense, future tenses can refer to an immediate future (shown in
§10.1.5 below), or to a future that is not necessarily immediate. This last one is
encoded with the suffix -bip, and can refer to any future that is not immediate. A
few examples are presented below:

20)  $ded = pa = ka$  
    how = be.like.this = ASS  3PL = finish-FUT
    ‘how will they end up?’

21)  $wã = hãh-bip = na = ka$  
    1SG = go.down.river-go-FUT = DECL = ASS  other  field(SP) = LOC
    ‘I will go downriver to other field’

22)  $ʔiue = ka$  
    ti̊j-buh-bip = na = ka
    Ines = ASS  be.good-do.from.far-FUT = DECL = ASS
    ‘Ines is going to (tell the story) do it well’

23)  $mi = bɨpa-bip = na = ka$  
    3SG.F = answer-FUT = DECL = ASS  2SG = OBJ
    ‘she will answer you’
10.1.6 Immediate future -min

The suffix -min encodes the immediate future, and is used for events that are about to happen. It is used quite frequently with verbs of saying and telling. However, it is not restricted to such verbs. In elicitation, the suffix was accepted whenever encoding an event or state that is to occur in the immediate future. When the time reference is other than immediate future, the use of the immediate future suffix –min ‘IMM.FUT’, is not grammatical.

24) wā=nawʔ-\textit{\textbf{min}=\textbf{\textit{ka}}} \quad \text{mēm=diʔ}
\begin{align*}
1\text{SG} &= \text{tell-IMM.FUT = ASS} \\
2\text{SG} &= \text{OBJ} \\
&\text{‘I’m going to tell you’}
\end{align*}

25) ṭā=mih-\textit{\textbf{min}=\textbf{\textit{na}=\textbf{ka}}}
\begin{align*}
3\text{SG.M} &= \text{say-IMM.FUT = DECL = ASS} \\
&\text{‘He is going to say’}
\end{align*}

26) wā=beh-\textit{\textbf{min}=\textbf{\textit{ka}}}
\begin{align*}
1\text{SG} &= \text{go-IMM.FUT = ASS} \\
&\text{‘I’m leaving’}
\end{align*}

10.2 Aspect

10.2.0 Introduction

Kakua has three forms that encode aspectual meanings. These forms, their semantics, and their morphosyntactic positions are presented in Table 10.2. Note that all three forms have different morphosyntactic positions. The habitual marker is strictly a prefix. The telic marker is strictly a suffix, while the progressive marker usually forms a predicate of its own, occurring either as a particle (detached) from the predicate construction, or taking also a cross-referencing proclitic and other verbal morphology, like any other verb. The possible etymology of the progressive marker is discussed below.
Table 10.2 Aspectual forms in Kakua

<table>
<thead>
<tr>
<th>FORM</th>
<th>SEMANTICS</th>
<th>GLOSS</th>
<th>HOST</th>
</tr>
</thead>
<tbody>
<tr>
<td>pĩ-</td>
<td><strong>Habitual</strong>: indicates an event or situation which occurs habitually in an extended period of time. (§10.2.1)</td>
<td>HAB</td>
<td>verbs</td>
</tr>
<tr>
<td>ḏahāp</td>
<td><strong>Progressive</strong>: Expresses an event, situation, or state that is in progress. (§10.2.2)</td>
<td>PROG</td>
<td>verbs</td>
</tr>
<tr>
<td>-tîhî</td>
<td><strong>Telic progressive</strong>: Expresses an event, situation, or state, that is still in process and that will have an end point (§10.2.3)</td>
<td>TEL,PROG,STILL</td>
<td>verbs</td>
</tr>
</tbody>
</table>

Although both telic and progressive forms encode some type of continuity, there is a semantic difference between these two aspectual markers. On the one hand, the telic refers to a situation that, although it is imperfective as in the progressive, will have an end point (conforming to the definition of telicity found in Comrie 1975:44ff). The progressive, on the other hand, while also referring to an imperfective situation, does not necessarily encode that such a situation will have an end point. The progressive aspect is described in §10.2.2, and the telic aspect in §10.2.3. The description of the habitual prefix follows in §10.2.1 below.

10.2.1 Habitual aspect: prefix pĩ-

The verbal prefix pĩ- encodes habitual aspect. Semantically, it refers to an event or situation that occurs habitually or frequently for an extended period of time. The semantics of this prefix conforms to the general definition of habituality, as given in Comrie (1976:27f): “the feature that is common to all habituals [...], is that they describe a situation which is characteristic of an extended period of time, so extended in fact that the situation referred to is viewed not as an incidental property of the moment but, precisely, as a characteristic feature of a whole period.” Sentences marked with the habitual prefix are translated with the similar habitual adverb in English ‘usually’, or ‘always’. Some examples follow:
Perhaps related to what its semantics encodes, indicating that something occurs in an extended period of time, the habitual prefix in Kakua also implies some level of assumption by the speaker. For example, although its main semantics is that of habituality, the speaker expresses a certain attitude towards the veracity of the proposition when using the habitual prefix. In other words, because the habitual prefix conveys that a given situation usually occurs in a certain predictable way, the speaker is also encoding a degree of confidence towards the content of the proposition, because she assumes that, given the habituality of the situation, it is assumed to occur (or have occurred), as is being stated.

Perhaps because of this, the habitual prefix does not co-occur with the reported or the inferred category of evidentials, since its implication of assumption would be incompatible with inferred or reported meanings. Inferred or reported evidentialities do not imply that the proposition occurs as such ‘in the majority of cases’ (Dahl 1985). An ‘assumed-like’ encoding, on the other hand, will imply that the assumption is being made on the basis of a regularity, or ordinary occurrence of a situation in such a way that it leads to assume or express the habituality of such a situation. In other words, the habituality of the situation makes that situation predictable.

Note that the habitual prefix in Kakua does not necessarily encode that the proposition must always be true, or that things always happens as is being stated. It is an unasserted assumption that the stated preposition habitually occurs as such. Perhaps this also explains why it is that the habitual prefix can cooccur with the assertion (illocution) mood marker. Given that by using the assertion mood marker the speaker full asserts the situation being expressed (see the description of the semantics of the marker of assertion in Kakua in §10.5.3 below), the habitual marker can be said to be also compatible with a ‘real’ world assertion (examples of the co-occurrence of habitual and assertion markers can be seen in (27) and (28) above and (29) below).

The habitual prefix expresses propositions anchored to non-future tenses. The explanation behind this can be that it would be rather difficult to predict that an event...
is taking place extendedly or habitually in the future. Some additional examples illustrating the habitual prefix are given below:

29) \( wä = pĩ-húj = na = ka \)
   \[ 1SG = \text{HAB-listen} = \text{DECL} = \text{ASS} \]
   ‘I always listen’

30) \( kán \ nèp \ tāʔ-na? \)
   PROX.DEM hesitation.tag tree-na?

\[ ʔä = pĩ-bin = na = hĩ \]
\[ 3SG.M = \text{HAB-exist} = \text{DECL} = \text{REM.PST} \]
‘there was always that tree (the one that we take wood for making blowgun mouthpieces)’

31) \( wä = pĩ-weʔ-kán = hĩ \)
   \[ 1SG = \text{HAB-chat-NEG} = \text{REM.PST} \]
   ‘I used to not talk’ (context: I used to not know Spanish, therefore, I used to not talk).

10.2.2 Progressive aspect: ʃahãp ~ =ʃãhãp

Progressive aspect in Kakua is encoded by the form ʃahãp. This, as indicated above, can be a free (or detached) form, but can also be encliticized or even take verbal morphology on its own as a separate independent predicate. It describes a situation that is in progress or that has not reached an end point, adopting Comrie’s (1976:32f) definition of progressive aspect.

In the examples below, the progressive aspect is translated into similar semantics as that of the progressive –ing ending of verbs in English. Nonetheless, I think that a more accurate translation would be that of DOING + PREDICATE:

32) \( tèw-ːat = diʔ \ hēnaʔ-ː?ēne = diʔ \ hīwʔ = na = be \)
   work-NMLZ = OBJ count-see = OBJ come = DECL = REC.PST

\[ wä = ʃãhãp = be \]
\[ 1SG = \text{PROG} = \text{REC.PST} \]
‘I was coming to predict the weather’ (lit. ‘I came to the job of counting and seeing)’

I propose this alternative translation on the basis of the (possible) etymology of the progressive form: it is possible that the progressive form corresponds to a grammaticalized construction of the verb ʃāb ‘do’ plus the general past marker -\text{Vp},
together forming the progressive \textit{tʃāhāp}.\footnote{This hypothesis is somehow problematic because the progressive aspect is not limited to past tense encoding. A satisfactory account of the presence of the dedicated past tense marker in this construction would need more explanation.} Perhaps the (presumably) verbal identity of one of the elements in the progressive form (i.e., the verb root \textit{tʃāh} ‘do’), can help to understand the versatile morphosyntactic behavior of the progressive \textit{tʃāhāp}. Verb stems (as seen in Chapter 8) can be compounded, and this might explain why the progressive \textit{tʃāhāp} (which may have a verb stem element in its composition) can be encliticized to the (main) predicate. This is perhaps a trace of the compounding ability of the verb \textit{tʃāh} ‘do’. Verb roots can occur as free forms (when functioning as a linking element between combined clauses, see Chapter 13); likewise, the progressive form can stand on its own as a free element, though its function is not that of combining clauses. Finally, in the same way that verb stems take cross-referencing proclitics and other verbal morphology, the progressive form can also take both the cross-referencing proclitics and (some) verbal morphology (especially remote or recent past distinctions). The following examples illustrate the progressive form as an encliticized element (33), as a free form (34),\footnote{It is important to note that it is not always clear whether in cases such as the one in (34) it would be more accurately analyzed as an encliticized form (\textit{wēm + bit = tʃāhāp}), or, as it is presented sometimes here, as a free form. The only criterion for presenting examples such as that of (34) here as a free form of the progressive is that there was a pause in between the elements (i.e., in between \textit{wēm = bit} and \textit{tʃāhāp}). For me, however, not being a fluent Kakua speaker, the pause is not always easily identifiable. Likewise, the cases in which, throughout the corpus, the progressive was transcribed as an encliticized form, respond to those cases in which I perceived a single phonological word with no pauses. There is a need to revise these transcriptions of the progressive form in future research (whether or not they should be transcribed as encliticized forms or free elements), checking one by one with speakers and test for rejection or acceptability of pauses in between the progressive form and surrounding elements. Additionally, in future research, stress-accent features and other phonological features may serve as clues to understand the syntactic behavior (whether attached or not) of this progressive marker.} and taking verbal morphology (35) and (36):

\begin{center}

33) \textit{wājkan = hō? kān/ pāj = na = ka = tʃāhāp}\\
\text{be.quick = INTS 3SG.F wait = DECL = ASS = PROG}\\
\text{‘quick now! she is waiting!’}
\end{center}

\begin{center}

34) \textit{hīb = na = ka wēm = bit tʃāhāp}\\
\text{to.promenade = DECL = ASS 1SG = ALSO PROG}\\
\text{‘I too am taking a walk (promenading)’}
\end{center}
35) $taw\tilde{h}i\tilde{h}-\tilde{h}ip=na$

search.in.many.places-show-DUB = DECL and.so = DECL = ASS

$t\tilde{h}h\tilde{ap}=na=ka$

PROG = DECL = ASS

‘like this (he) might be searching everywhere and showing (the pain)’

36) $t\tilde{h}i-ni=di$\quad w\tilde{em}\quad bid=na=h\tilde{i}$

be.good-ADJVZ = OBJ1SG search = DECL = REM.PST

$w\tilde{a}=t\tilde{h}h\tilde{ap}=h\tilde{i}$

1SG = PROG = REM.PST

‘I was searching for (my) wellbeing’

If the etymology of the progressive in fact is $t\tilde{h}h\tilde{ap}$ ‘do’ + -Vp ‘PST’ it is very interesting that such a past tense encoding of a verb results in an imperfective form, rather than a perfective one. The following example shows the verb $t\tilde{h}h\tilde{ap}$ ‘do’ as a lexical verb:

37) $dedpa?ni\quad t\tilde{h}h=nit=d\tilde{e}=ka$

what do-INTERR = FUT.INF.EVID = ASS 1SG = son

$w\tilde{a}=w\tilde{i}$

‘what might you do, son?’

Given that Kakua has many verbs referring to ‘doing’ particular actions (DO.ACTION, such as $h\tilde{u}b$ ‘do again’, $\tilde{g}\tilde{ap}$ ‘perform a prayer for someone’), the use of the verb root $t\tilde{h}h\tilde{ap}$ ‘do’ is not very frequent across the corpus since the meaning of ‘do’ is already encoded in the semantics of more specific verbs of ‘doing’, in this sense speakers generally prefer more specific activity verbs to the more vague/generic ‘do’. When the verb $t\tilde{h}h\tilde{ap}$ ‘do’ is functioning as part of the progressive form (as seen in the examples in this section, assuming that the etymology of the progressive does derive from the grammaticalization of $t\tilde{h}h\tilde{ap}$ ‘do’ + -Vp ‘PST’), the verb $t\tilde{h}h\tilde{ap}$ ‘do’ no longer expresses the core of the event expressed in the sentence, and it is in those cases that the construction $t\tilde{h}h\tilde{ap}$ is analyzed as a progressive verb, rather than as a lexical verb ($t\tilde{h}h\tilde{ap}$ do-PST).

10.2.3 Telic progressive aspect: suffix -$\tilde{f}i\tilde{h}$

The suffix -$\tilde{f}i\tilde{h}$ ‘TEL.PROG’ serves to express a situation that, like the one described for the progressive aspect above, encodes the continuity of an (imperfective) event, but additionally it also particularly encodes an event which must have an end point. For lack of a better term, I am labeling this suffix as a telic progressive. This suffix partially conforms to the general definition of telic aspect,\(^4\)

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\(^4\) For the general definition of telic aspect I follow here Comrie’s (1975:44-45) definition of telic as “a telic situation is one that involves a process that leads up to a well-defined terminal point beyond
but doesn’t fully conform to this. Like a telic aspect, the suffix -fɨɁɨ in Kakua does express ‘a process that leads up to a well-defined terminal point…’ (Comrie 1975:44-45); however, unlike telic (as defined in Comrie 1975:44-45), the telic progressive suffix in Kakua doesn’t necessarily encode that the situation cannot continue beyond the terminal point defined. In other words, the telic progressive aspect in Kakua specifies that the situation is occurring up to a terminal point, but this terminal point is not necessarily the end point of the situation, as this situation may still continue (see example (38) below, where the endpoint of the activity, i.e., stop eating, does not necessarily entail that the object of the activity, i.e., the food, will also be finished once the eating has stopped).

The telic progressive aspect suffix in Kakua is translated with the adverbial form in English ‘still’ or ‘yet’, where the situation described is still occurring (and in this sense is an imperfective situation) but is expected to have, at some point, an intrinsic end.

Some examples of the telic progressive suffix are given below. It is important to highlight, however, that the occurrence of this suffix in the corpus is not very common, and only after being prompted with specific elicitations was I able to gather sufficient data to support the semantics of this form. It is curious, though, that Kakua bilingual speakers in Spanish will persistently use the Spanish adverb todavía (‘still’ or ‘yet’), but in their constructions in Kakua they will rather use the progressive form ʧãhãp described above. When questioned regarding the possibility of translating the same sentences with todavía into Kakua by using the telic progressive suffix -fɨɁɨ "TEL.PROG", instead of the ‘default’ progressive ʧãhãp 'PROG' speakers concluded that translations of todavía sentences with -fɨɁɨ "TEL.PROG" might be more accurate, though the use of the progressive ʧãhãp in the todavía sentences was not regarded as incompatible either. The examples below do come from natural text.

38) hěmŋ'-fɨɁɨ=na
   eat-TEL.PROG = DECL
   ‘(she) still eats’

39) ʧɨ̃̂ ŧ-fɨɁɨ=na
   sit-TEL.PROG = DECL
   ‘still sitting’

40) jâwa-fɨɁɨ=na=ḥĩ
    fill.up.liquid-TEL.PROG = DECL = REM.PST
    ‘(he) was still filling up’

Having an implied reference to an ending point, the telic progressive aspect can be said to be in competition with the progressive in situations that can be interpreted both as atelic or telic. This may explain why in some cases Kakua
speakers accept both progressive /ʧãhãp/ and telic progressive -/fɨɁɨ/. One such example is given in (41) and (42) below. Example (41) occurred in natural speech. Sentence (42) was elicited during the dry season. Given that the dry season was expected to end soon, the speaker accepted the elicited form in (42) as valid because of previous knowledge of an end point of the situation. Note that in any case, there is no overlap of the progressive and the telic progressive forms:

41) \[bi \ huptfi \ h\tilde{u}^\prime = na = ka \quad \tilde{a} = t\tilde{f}\tilde{a}hãp\]
   \[\text{now} \quad \text{summer come} = \text{DECL} = \text{ASS} \quad 3\text{SG} = \text{PROG}\]
   ‘now summer is coming’

42) \[bi \ huptfi \ h\tilde{u}^\prime -f\tilde{a}h = na = ka \]
   \[\text{now} \quad \text{summer come-TEL.PROG} = \text{DECL} = \text{ASS}\]
   ‘now summer is still coming’

Finally, it is possible to consider that the telic progressive suffix -/fɨɁɨ/ is either falling in disuse (for which a test comparing its use across generations would be needed), or that it has just recently been introduced into Kakua (for which comparative evidence would be required). Only future research will give more answers to the fascinating semantics and uses of this telic progressive aspect -/fɨɁɨ/.

10.3 Mood: illocution and modality

The modal categories in Kakua are very versatile and encode many more distinctions than any other category related to the event or situation encoded by the predicate.

While tense and aspect deal with temporal particularities of a proposition (‘external temporal constituency’ and ‘internal temporal constituency’, respectively, as in Comrie 1976:3), mood deals with finer specifications regarding the status of the proposition, reflecting a speaker’s attitude towards the proposition, “not directly concerned with situating an event in the actual world, as conceived by the speaker” (Hengeveld 2004:1190). Consequently, mood in Kakua is described here as the morphological category that is not anchored to an expression of time, but rather it is concerned with expressing “the status of the proposition” describing the event (I follow here Palmer’s 2001 general definition of mood). This is to say, mood in Kakua conforms to a cross-linguistic grammatical category that expresses something about the speaker’s view of the proposition (c.f. Bybee 1990, Palmer 2001, Hengeveld 2004 for discussions of mood).

Hengeveld (2004) proposes a subdivision of the category of mood into illocution and modality, illocution being “instances of specific types of speech acts”, while modality is “concerned with the modification of the content of speech acts” (Hengeveld 2004:1190). In the subsequent sections I follow Hengeveld’s division of mood, and describe separately illocution and modality as categories of mood in Kakua. The motivation for adopting Hengeveld’s division of mood categories is mainly a semantic one. Dividing the mood markers in Kakua into two groups helps
to better describe their semantics: illocution markers are ‘unqualified’ expressions of the speech acts, whereas modality markers do express the type of relationship, expectations, or attitude of the speaker towards the content of these speech acts (modality can “modify the content of the speech acts” ibid). Additionally, only the group of illocution markers can constitute types of clauses. The same cannot be said for the modality markers, which do not form types of clauses (there are no clauses such as ‘frustrative clauses’ or ‘dubitative clauses’).

The semantics of these categories are described in the subsequent sections. Section §10.4 describes grammatical morphemes encoding illocution, and section §10.5 describes the different morphemes expressing modality. Evidentiality is presented separately in §10.6. Note that all three categories are considered to be part of the overall mood category in Kakua.

A formal distinction between illocution and modality, as presented in Hengeveld (2004), is that “in the expression of illocution the morphological category of mood has to compete with word order and intonation as markers of particular substinctions, whereas modality is expressed by mood markers only” (Hengeveld 2004:1190). As shown in the subsequent sections, although one of the illocution morphemes comes along with a particular intonation, it is not necessarily the case that illocution morphemes in Kakua, as opposed to modality morphemes, compete in terms of word order and intonation with other substinctions. Rather, I will say that the primary distinction between illocution markers and modality markers in Kakua, is that, as stated above, illocution markers have the ability to indicate a clause type, whereas modality markers does not.

Morphosyntactically, it cannot be said that there is a distinction that characterizes one or the other type of mood. Although most of these markers have their own dedicated morphosyntactic slots, and while most occur following the stem (as suffixes or enclitics), there are some in prefixing position (specifically evidentiality markers).

### 10.4 Illocution

#### 10.4.0 Introduction

Illocution refers to a semantic subgroup of mood markers that function to express the communicative intention with which the speaker presents a proposition. As such, the communicative status of the proposition in Kakua can be that of an assertion, a question, or a command. This section deals with these three basic illocution markers, namely declarative (§10.4.1), interrogative (§10.4.2), and imperative (§10.4.3).

The markers of illocution are presented here only briefly in order to illustrate their semantics. This is because these markers have a formal distinction as well as a semantic one: they have the ability to form clause types (clause types are described

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5 A formal description of illocution marking is presented in Chapter 12 (clause types).
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In Chapter 12, sections §12.9, §12.10, and §12.11 for declarative, interrogative, and imperative clauses respectively. Negation is also described in Chapter 12).

In the characterization of the morphological markers of illocution, Hengeveld notes that “by their very nature, basic illocutions [this is declarative, interrogative and imperative, KB] are restricted to independent sentences and quotations. This feature will be of help in distinguishing illocutionary from modal categories” (Hengeveld 2004:1191). This is, however, not a characteristic of the morphological markers of illocution in Kakua, for these markers are not restricted to independent clauses and may occur in subordinate clauses (see example (47) below, and Chapter 13, for examples of declarative marker occurring in subordinated clauses).

The different markers of illocution mood in Kakua are summarized in Table 10.3 below.

<table>
<thead>
<tr>
<th>FORM</th>
<th>SEMANTICS</th>
<th>GLOSS</th>
<th>HOST</th>
</tr>
</thead>
<tbody>
<tr>
<td>=na</td>
<td>Declarative: used to express an assertion (§10.4.1).</td>
<td>'DECL.'</td>
<td>Usually on verbs, but not restricted to verbs. It occurs also on other parts of speech (see Chapter 12).</td>
</tr>
<tr>
<td>=nit</td>
<td>Interrogative: used to indicate a question (§10.4.2).</td>
<td>'INTERR.'</td>
<td>Usually on verbs, but not restricted to verbs. It occurs also on other parts of speech (see Chapter 12).</td>
</tr>
<tr>
<td>-V</td>
<td>Imperative: used to indicate a command (§10.4.3).</td>
<td>'IMP'</td>
<td>verbs</td>
</tr>
</tbody>
</table>

10.4.1 Declarative mood =na

The declarative marker in Kakua expresses an assertion without indicating the reasons for that assertion or the speaker’s commitment to it (as in the definition of declaratives given in Palmer 2001:64). It is, in terms of Palmer (2001:64), an “unqualified assertion”. This characterization of the semantics of the declarative marker in Kakua also implies that a proposition marked with the declarative mood can be further specified by modality in order to convey the speaker’s commitment to it.

In Kakua the declarative marker can co-occur with some evidential markers, as long as they encode, by themselves, a certain degree of assertion. Such is the case of the reported evidential clitic =wɪt ‘REP.EVID’, in which the degree of assertion is entirely a third party’s responsibility (see examples below).

The declarative marker in Kakua is the clitic =na ‘DECL’, and although its most common host is the predicate (verb; as in Table 10.4 above), the declarative marker can also attach to other parts of speech such as nouns, pronouns,
demonstratives (43), particles (45) and (46), and nominalized or adjectivized verbs (44):

43) \( kûn = na \)

DIST.DEM = DECL

‘that (distant) one’

44) \( pêɲep = di? = bû \quad kef \quad tû-yëj-\mathit{ni} = na \)

clay.pot = OBJ = EMPH to.paint be.good-be.black-\text{ADVZ} = \text{DECL}

‘(it) paints the claypot very black’

45) \( \mathit{patiera} = na \quad hîjbi = na \)

Puerto.Lleras = \text{DECL} arrive = \text{DECL}

‘(we) arrived in Puerto Lleras’ (lit. Puerto Lleras. We arrive)

46) \( \mathit{pa}?ni? = na \quad nîh = na = ka \quad tʃâhâp \)

and.so = \text{DECL} say = \text{DECL} = \text{ASS} PROG

‘so, (like this he) is saying’

As stated in the introduction to this section, the declarative marker is not restricted to main clauses, as illustrated in the following example. Note that the declarative marker occurs on the elements of the subordinated clause: 7

47) \( \mathit{ʔĩ}= hît-feh-\mathit{ni} = na = di? \quad \mathit{ʔĩ}= \mathit{mup-\ mathit{ni} = na = di?} \)

3PL. = grind-leave-SUBR = \text{DECL} = OBJ 3PL.-to.rot-SUBR = \text{DECL} = OBJ

\( \mathit{ʔĩ}= bab? -\mathit{ni} = na \quad nî\at \quad \mathit{ʔâ} = pî-\mathit{ʔi}-bëd \)

3PL. = drink-SUBR = \text{DECL} everything 3SG.M = \text{HAB}-take-finish

‘he would always take everything, that which they grinded and left, that which they rotted (manioc), that which they drink (beer)’

Assessments can refer to situations in the future or the past. Because of this, the declarative marker can also co-occur with markers of tense distinctions. This is illustrated in the following examples:

\footnote{Note cases such as the one in (45), where the declarative enclitic occurs twice. Cases like this are not explained in this grammar and future research is necessary to understand this phenomenon.}

\footnote{This is a very intriguing syntactic distribution of the declarative marker, occurring in subordinate clauses even when not necessarily conveying reported speech. Perhaps an explanation for this strange occurrence in subordinate clauses can be found in other semantic values that the declarative marker can convey. For example, as implied above, the declarative marker can also convey some kind of evidentiality value (i.e., that of an ‘unqualified assertion), as opposed to strictly functioning as a declarative marker. In this sense, the declarative marker in Kakua would have properties of both illocution and modality markers, blurring the line between these two type of mood markers.}
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48) \( \text{nin} = bũ = \text{ka} \quad \text{ʔã} = \text{hépaʔ} \quad \text{bip} = \text{na} = \text{ka} \quad \text{měm} = \text{diʔ} \)

\( \text{THIS} = \text{EMPH} = \text{ASS} \quad \text{3SG.M} = \text{answer} \cdot \text{FUT} = \text{DECL} = \text{ASS} \quad \text{2SG} = \text{OBJ} \)

‘this one will answer you’

49) \( \text{him} = \text{na} = \text{be} \quad \text{ʔã} = \text{hoanʔ} \quad \text{he} \quad \text{ɲě} = \text{hi} \)

\( \text{exist} = \text{DECL} = \text{REC} = \text{PST} \quad \text{3SG.M} = \text{older.sister} = \text{COM} \)

‘(she) was there with an (somebody’s) older sister’

50) \( \text{bitéʔ} = \text{ka} \quad \text{jém} = \text{diʔ} \quad \text{mi} = \text{ʔib} \cdot \text{min} = \text{na} = \text{ka} \)

\( \text{now} = \text{REAL} \quad \text{2PL} = \text{OBJ} \quad \text{3SG.F} = \text{take.out} = \text{INM} = \text{FUT} = \text{DECL} = \text{ASS} \)

‘now she is going to record you’

A few examples above have illustrated the declarative occurring with the marker of assertion = \( \text{ka} \) (e.g., (46), (48), and (50)), this serves to illustrate how clauses with the illocution marker for declarative can be further specified for modality.

Likewise, the declarative marker can also occur in sentences marked with the reported evidential. This is the only evidential category with which the declarative can co-occur (be it marked by the reportative enclitic = \( \text{wit} \) ‘\text{REP.EVID}’), or with the second-hand evidential prefix \( \text{t} - \sim \text{ti} - \) ‘\text{EVID}’, as long as the sentence represents reported information. Sentences of inferred evidentiality cannot contain the declarative marker. I believe that one possible explanation for this is that perhaps the inferred evidentiality category reduces somehow the degree of assertion of a situation. The situation is more likely to be asserted if the speaker has either full commitment towards the veracity of it, or if the commitment towards the veracity of the situation falls completely onto someone else. Thus, if the sentence is marked for reported evidentiality, the responsibility of what is being asserted is not entirely on the speaker’s behalf, but on somebody else’s. An inferred statement, on the other hand, implies the speaker’s own inferences as regards the situation and may compromise her reputation if the situation is asserted based on inferred grounds. This may also serve as another argument suggesting that the declarative marker has some kind of evidential function.

51) \( \text{kět} = \text{diʔ} \quad \text{mi} = \text{t-\text{nih} = na = wit} = \text{hĩ} \) 

\( \text{3PL} = \text{OBJ} \quad \text{3SG.F} = \text{EVID-say} = \text{DECL} = \text{REP.EVID} = \text{REM.PST} \)

\( \text{dě} = \text{beh} = \text{tigá} \quad \text{ni} = \text{tfāh} \)

\( \text{WHERE} = \text{= EMPHZ.\text{TAG}} \quad \text{2PL} = \text{do} \)

\( \text{mi} = \text{t-\text{nih} = na = wit} = \text{hĩ} \) 

\( \text{3SG.F} = \text{EVID-say} = \text{DECL} = \text{REP.EVID} = \text{REM.PST} \)

‘She asked them, where are you all going?’
Tense, aspect, mood and evidentiality

52) ʔĩ=baj ʰijbi=na=wit=ʰĩ

3PL=brother.in.law  arrive=DECL=REP.EVID=REM.PST

‘their brother in law arrived (it is said)’

The ability of the declarative marker to occur in reportative sentences is predicted in Hengeveld (2004:1191), referring to quotations as one of the typical environments in which a declarative marker can occur. More discussion of declarative clauses is found in Chapter 12.

10.4.2 Interrogative mood =nit

The interrogative marker in Kakua serves to express questions (polar questions, see Chapter 12 section §12.10 for the description of polar and content questions). An interrogative implies a “non-assertion” (see Palmer 2001:52-53), and as a type of illocution, it represents an ‘unqualified question’ without necessarily implying the speaker’s commitment, attitudes or even expectations towards the answer. The interrogative marker is mutually exclusive with declarative and imperative illocution markers.

The interrogative marker in Kakua is the clitic =nit ‘INTER’, and although its most common host is the predicate (verb; as in Table 10.3 above), as in example (53), the interrogative marker can also attach to other parts of speech such as pronouns (54), nominalized or adjectivized verbs (55), or NPs (56):

53)  Mitũ =hũ  beh =nit

Mitũ =LOC  go =INTERR

‘to Mitũ?’

54)  paʔnin  kũn =nit

and.so  3SG.M =INTERR

‘so, (is it) he?’

55)  paniʔ  děpaʔ  nom-ni  hewɛʔ-ni =nit

and.so  HOW  suck-A.NMLZ  to.move-ADJVZ =INTERR

‘so, are the (blood)suckers these moving (stones)’

56)  jedɛʔ-wã  jẽb  ʰim =nit  pumʔ =nit=ti

parakeet-PL  2PL  exist =S.S group =INTERR=INTS

‘you Parakeets were there, (were you all the same) group?’

9 Taking into account that a quotation in Kakua can also be expressed as a reported situation, I do not undertake here a discussion of the differences between quotative and reportative evidentiality, given that there is no distinction between these two in Kakua.
The interrogative illocution can be combined with other modality markers, like the dubitative, as in the following example.  

57) \( ma=beh-hin-kan=nit \)
    2SG = go-DUB-NEG = INTERR
    ‘aren’t you going?’

Unlike declaratives, the interrogative marker can occur in clauses marked with inferred evidentiality:

58) \( měm \quad ma=ta-na-_beh=ta=nit \)
    2SG 2SG = EVID-want-go = INF.EVID = INTERR
    ‘maybe you want to go?’

Interrogative clauses, and how responses to them are formed, are further described in Chapter Section §12.10.

10.4.3 Imperative mood: –Ṽ́ ‘IMP’, - kabuhú ‘NEG.IMP’, and -ʔabuhú ‘IMP2’

The last category of illocution is the imperative mood. The imperative mood expresses commands. Commands in Kakua can be expressed by three different markers that encode specific types of commands. A positive command, which is marked with the suffix -Ṽ́, a negative command, marked with the suffix - kabuhú, and a command that solicits an action to be performed for the benefit of someone else, marked with the suffix -ʔabuhú.

Like declarative and interrogative moods, the imperative moods can serve to form types of clauses. The host of the imperative suffixes is the predicate (or verb as in Table 10.3). Examples of these three imperative markers are given below:

59) \( kan=diʔ \quad měm \quad ma=ľěh-Č \)
    3SG = OBJ 2SG 2SG = leave-IMP
    ‘leave it!’

60) \( ma=beh-kabuhú \quad Ī =pi-nilh = na = wit = hī \)
    2SG = go-NEG.IMP 3PL = HAB-say = DECL = REP.EVID = REM.PST
    ‘don’t go, they always said’

61) \( kān = diʔ \quad ?īb-ažbuhú \)
    3SGM = OBJ take.out-IMP2
    ‘take it out (for somebody else)’

\(^{10}\) Note that, unlike the interrogative, the dubitative modality does not express a question, given that the category of modality, as adopted here from Hengeveld (2004), does not have the ability to form clause types. A question is a type of clause, whereas the dubitative modality expresses doubt, and not necessarily a question. See the description on dubitative modality in §10.5.1 below.
Usually additional modality (and tense and aspect) distinctions are not expressed in imperative clauses. Whenever the clause is further specified for these distinctions, the TAME markers occur on another element of the clause, which can take all of the needed TAME morphology:

62) \[ ma = ʔɨb- \quad \text{hit-at} \quad pɨnaʔ \quad nih = wɨt = hɨ \]
\[ \text{2SG = take.out-IMP \ grate-NMLZ \ POT \ say = REP.EVID = REM.PST} \]
\[ '\text{take out (the manioc) for grating, it is said}' \]

More information on the different imperative markers and the type of clauses that they form is given in Section §12.11.

10.5 Modality

10.5.0 Introduction

As argued in §10.3 above, modality refers here to a semantic category of mood, differentiated from illocution in that modality can be used by speakers to modify speech acts (as in Hengeveld 2004:1090), and that these modality markers do not form clause types. The different grammaticalized markers of modality in Kakua are presented in this section. This category consists of three distinctions: dubitative (§10.5.1), frustrative (§10.5.2), and assertion (§10.5.3). The markers encoding evidentiality distinctions are presented separately in the subsequent section, §10.6. Table 10.4 summarizes the different markers encoding modality.

<table>
<thead>
<tr>
<th>FORM</th>
<th>SEMANTICS</th>
<th>GLOSS</th>
<th>HOST</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-hin \sim ~ -hip)</td>
<td>Dubitative: expresses doubt (§10.5.1).</td>
<td>'DUB'</td>
<td>Verbs</td>
</tr>
<tr>
<td>(= ji? \sim ~ -ji?)</td>
<td>Frustrative: expresses a “non-realization of an expected outcome” Overall <em>forthcoming</em> (§10.5.2).</td>
<td>'FRUST'</td>
<td>Verbs</td>
</tr>
<tr>
<td>(= ka \sim (\sim = ki))</td>
<td>Assertion: expresses a assertion towards the situation.</td>
<td><em>ASS</em></td>
<td>many hosts (pronouns, demonstratives, verbs)</td>
</tr>
</tbody>
</table>

10.5.1 Dubitative mood \(-hin \sim ~ -hip\)

The dubitative modality expresses doubt as a subjective approximation of the situation on the part of the speaker. The speaker indicates that she has a certain degree of doubt regarding the veracity of the proposition. This semantics of the dubitative marker in Kakua conforms to the typical characterization of what a
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dubitative modality marker expresses (see Hengeveld 2004:1197 for one definition of dubitative modality).

The marker for dubitative modality has two (dialectal) forms: `-hin` and `-hip`, and is glossed ‘DUB’. One form, `-hip`, is used exclusively by two clans (tõjdaʔwã ‘bitter manioc’ clan and ḣɨ̃́ɁwẽɁwã ‘children of blowgun’ clan), while the rest of the clans seem to use exclusively the `-hin` form of the dubitative in the same contexts where `-hip` is used by the above mentioned clans. I present examples below of this dubitative marker using data transcribed only for those clans that use the `-hin` form. Some of these examples were elicited to ask for the possibility to use the form `-hip` instead of `-hin`. Speakers accepted both forms, though emphasizing that the form `-hip` will be the one used by individuals of a different clan (referring then to the clans tõjdaʔwã and ḣɨ̃́ɁwẽɁwã).

63) \( _{\text{nf}} = \text{beh}-\text{hin}-jî = n \)
\( 2 \text{PL} = \text{go-DUB-FRUST} = \text{DECL} \)
‘you all wanted to go but couldn’t go’

64) \( ñî = t-\text{nim?}-\text{hēm}^-\text{hin}=\text{kan}=\text{ta} = \text{nit} \)
\( 3 \text{PL} = \text{EVID-be.deep-eat-DUB-NEG} = \text{INFERR} = \text{INTERR} \)
‘perhaps they did not invite (her) to eat?’

It is important to note also that often the form `-hin`, undergoes a phonetic reduction to `-hĩ`. This usually occurs when the dubitative marker is followed by a clitic having a nasal consonant in the onset position: `-hin = C_{+N} \rightarrow -hĩ = C_{+N}`. In these cases, the vowel in the dubitative marker retains the nasal quality of the morpheme.

I note that this is the most common phonetic realization of the dubitative marker in the context mentioned above. However, I have also noted instances in which the dubitative marker remained `-hin` even in contexts when it was followed by a nasal consonant. This is left for future research. Finally, I have not tested this for the cases of the variant of the dubitative form `-hip`, and a study on the different dialectal variations in Kakua will perhaps provide an explanation regarding the status of the `-hip` form of the dubitative. An example of the dubitative form, phonetically reduced to `-hĩ’DUB’ is given below:

65) \( ñî = t-naʔ-a-hĩ = \text{nit} \)
\( 2 \text{PL} = \text{EVID-want-DUB} = \text{INTERR} \)
‘do you (all) want, perhaps?’

10.5.2 Frustrative mood = jiʔ?

The frustrative marker = jiʔ? indicates that the event encoded by the verb did not occur as expected, or was not fully realized as intended. It can also indicate that the action was fully realized but without the intended outcome. I thus follow here the definition of frustrative proposed by Overall (forthcoming: 3), as a grammatical marker expressing “the non-realization of some expected outcome implied by the
The frustrative marker is presented as an enclitic; however, as seen in Chapter 8, the frustrative can also occur as a suffix, as in (66), or even detached from any preceding element, as in (68), as discussed below.

66) \( \text{ɲi=beh-hin-jiʔ=na} \)
\( 2\text{PL}=\text{go-DUB-FRUST}=\text{DECL} \)
‘you all wanted to go but couldn’t’

67) \( \text{ʔê-nit, tʃ̃aw-hiʔ-ni-hin-jiʔ=na,} \)
\( \text{see-S, stay-arrive-SUBR-DUB-FRUST=DECL}, \)
\( 3\text{PL}=\text{EVID-return-pass-go.up-do-PST=REP.EVID=REM.PST} \)
‘seeing, they wanted to stay nevertheless but they could not, (so) they continued to go on upriver’

68) \( \text{nih=na jiʔ=na} \)
\( \text{say=DECL FRUST=DECL} \)
‘he said (but failed to accomplished what was said)’

The marker is a suffix in (66) because it precedes the declarative marker, which is in the first enclitic position of the verb template (see Chapter 8). In (68) it is a morpheme detached from the preceding elements, because each element of the clause is taking a declarative marker of its own. The declarative marker is never marked twice in the same word. When the clause is marked for evidentiality, the frustrative marker will follow both the declarative marker (as opposed to what is shown in (66) and (67) above), and the evidential marker. This is illustrated in (69) below:

69) \( \text{ʔi=tʃ̃ap-ʔal-hāw-ap=wiʔ=hī} \)
\( 3\text{PL}=\text{EVID-return-pass-go.up-do-PST=REP.EVID=REM.PST} \)
‘(it is said) they said but weren’t heard’

As discussed in Müller (2013:106ff), and Overall (forthcoming:7), frustrative marking does not necessarily overlap with an incomplete meaning, but instead refers to a situation the outcome of which is contrary to expectations, where the situation may or may not be completed. Likewise, the frustrative marker in Kakua refers to the speaker’s expectations regarding the outcome of the proposition, and, although the frustrative is normally used in propositions that are fully completed, it is not contradictory with a progressive or telic aspect (§10.2.2 and §10.2.3 above respectively). An example of Kakua telic aspect co-occurring with the frustrative mood is given below:
Kakua has another form that expresses meanings similar to the frustrative marker =jiʔ, but that usually functions as a verb,\(^{11}\) not as a grammatical morpheme. This is the verb najf ‘to want to do something but not to be able to’. It is described here as a ‘borderline’ form between a verb and a functional morpheme, particularly because of i) its semantics when functioning as a verb versus when used as a functional morpheme, and ii) because of its morphosyntactic position when functioning as a verb, different from that when it is a functional morpheme.

When functioning as a verb, it encodes ‘wanting to perform an event but not being able to’. When used as a functional morpheme, it conveys that the ability for performing an event is no longer present, but it is possible to achieve such ability again. Then it is glossed as ‘WANT.TE’, and functions morphosyntactically as a clitic (or as a suffix, as future research will have to show), as in the elicited example in (71). In this example, najf conveys that there was the ability to blow, and now the ability is not there but can be recovered. The ‘blowing’, as opposed to example (72) below from natural speech, did not occur in vain:

71) \(\text{w}=\text{pi=p}=\text{pi=ji}=\text{h}\)

\(1\text{SG} = \text{HAB-make.prayer-TEL.PROG} = \text{FRUST} = \text{REM.PST}\)

‘I still prayed vainly’ (I used to pray vainly and still am praying)

As mentioned above, najf is not incompatible with the frustrative marker, and its function is not that of encoding frustrative. This is illustrated in the following example. Note that the occurrence of the frustrative marker indicates that although there used to be an ability to perform an event (blowing as part of a shamanic healing prayer), both the blowing and the ability to perform the blowing do not have the expected outcome: ‘blew in vain’, and ‘had the ability but that ability can no longer be recuperated’):

72) \(\text{w}=\text{pi=pi}=\text{pi}=\text{ji}=\text{h}\)

\(1\text{SG} = \text{HAB-blow-PST} = \text{WANT.TE} = \text{REM.PST}\)

‘I used to be able to blow in vain’ (used to blow in vain but now I can’t and can’t try either).
a formative (suffix or enclitic), or it is a verb stem which should be analyzed separately from the preceding construction as follows (where the verb naj lacks the cross-referencing proclitic):

73) \(wä=pɪ-pɪw^2-ip\) \(naj=ji?=hi\)
\(1\text{SG}=\text{HAB-blow-PST} \quad \text{want but can’t do} = \text{FRUST} = \text{REM.PST}\)

Intended meaning: ‘I used to be able to blow vainly’ (used to blow vainly but now I can’t and can’t try either).

When the possibility of stating the sentence in (73) above was checked with native speakers two things happened. Firstly, speakers hesitantly accepted the construction but evaluated it as strange. Secondly, speakers tried to make sense of the construction but the meaning changed quite a bit: the frustrative marker had scope only over the verb \(naj\) ‘want but can not do’, and not over the verb \(pɪw\) ‘blow’. Thus, the meaning of the construction was given as: ‘I used to blow (successfully), and I used to want but can’t do blowing, but now I don’t want and can’t do.’

Examples (66) to (73) above show that there is a fascinating field awaiting to be explored regarding not only the semantics of a contra-expected outcome of a situation, but also regarding the development of grammatical morphemes in Kakua expressing modality distinctions.

10.5.3 Assertion mood \(=\text{ka} \sim =\text{ki}\)

The clitic \(=\text{ka}\) expresses assertion by the speaker. By using this clitic, the speaker expresses her attitude towards the situation, in a sense that it is the speaker herself who takes responsibility for stating the situation.

This enclitic of assertion has two forms \(=\text{ka}\) and \(=\text{ki}\). Kakua speakers of Nuevo Pueblo use the form \(=\text{ki}\) exclusively. Kakua speakers of Wacará, on the other hand, use both \(=\text{ka}\) and \(=\text{ki}\). The form \(=\text{ka}\) is used as the general assertion marker. The form \(=\text{ki}\) appears to have a deictic meaning as well, indicating a spatial distance between the speaker and the hearer. Thus, the difference between the example from a text in (74) and the elicited example in (75) is that in (74) the speaker is in close spatial proximity to the hearer, while in (75) the speaker is presumably speaking from a distant point. The deictic distinction is not commonly marked, and because of this I describe the form \(=\text{ka}\) as the ‘default’ form of the assertion marker.

74) \(wëm=\text{ka} \quad kän=diʔ\quad wä=mäw-bip\)
\(1\text{SG}=\text{ASS} \quad 3\text{SG}.M=\text{OBJ} \quad 1\text{SG}=\text{kill-FUT}\)
‘I’m going to kill him!’

75) \(wëm=\text{ki} \quad kän=diʔ\quad wä=mäw-bip\)
\(1\text{SG}=\text{ASS} \quad 3\text{SG}.M=\text{OBJ} \quad 1\text{SG}=\text{kill-FUT}\)
‘I’m going to kill him!’
The enclitic of assertion can attach to various parts of speech, such as pronouns (74) above, demonstratives (76), nominalized or adjectivized verbs (77), NPs (78)-(79), and predicates (as in (80)-(82), which represent the most common hosts of the assertion marker).

76) \( nin = b\u0103 = ka \quad \hat{\alpha} = h\u0103p\u0161 - b\u1609p = na = ka \)

\( IMM.PROX.DEM = EMPH = \text{ASS} \quad 3\text{SG.M = answer-FUT = DECL = ASS} \)

\( m\u0103\text{m} = d\text{i}\text{"} \)

2\text{SG = OBJ}

‘this one here is going to answer you’

77) \( d\text{\"e\"w\"} - at - ni - k\text{a} = ka \)

\( \text{laugh-NMLZ-SUBR-NEG = ASS} \)

‘don’t laugh’ (no laughter)

78) \( f\text{\"w\"} = ?\text{\"i\"}n = ka \quad k\text{\"a\"n} = \text{\"t\"\text{\"o\"}j\text{\"d\"a\"} - w\text{\"a\"} - \text{\"w\"}\text{\"i\"}l\text{\"i\"}l} \)

\( 1\text{PL.POSS = mother = ASS} \quad 3\text{SG.F = proper.name-PL-CL.female} \)

‘our mother is a \text{\"t\"\text{\"o\"}j\text{\"d\"a\"} clan woman’ (rotten manioc clan)

79) \( w\text{\"a\"} = h\text{\"u\"}n\text{\"a\"} = ka \quad k\text{\"a\"}\text{-bit} = d\text{i}\text{"} \quad w\text{\"e\"}m = d\text{i}\text{"} \)

\( 1\text{SG = younger.sister = ASS} \quad \text{give.medicine-DIM = OBJ} \quad 1\text{SG = OBJ} \)

\( b\text{\"a\"\text{\"b\"}} \text{"} \)

‘my younger sister gave me a bit of medicine for me to drink’

80) \( p\text{\"e\"w\"} - \text{\"y\"\text{\"o\"}b\text{\"u\"} = ka \)

\( \text{to.hammer-make.exit = ASS} \)

‘hammering making (the stick) exit on the other side’

81) \( m\text{a} = hi\text{\"w\"} = ka = be \)

\( 2\text{SG = come = ASS = REC.PST} \)

‘you’ve come!’

82) \( w\text{\"a\"} = h\text{\"e\"}n\text{\"a\"} - \text{\"h\"\text{\"u\"}j - k\text{a} = ka \)

\( 1\text{SG = count-know-NEG = ASS} \)

‘I don’t remember’

The marker of assertion, as seen in example (76) above, can occur in situations anchored in a future tense. In these cases, the assertion marker is acceptable if the future situation is likely to take place, given that the assertion marker encodes a situation to which the speaker is committed.

The assertion marker can also co-occur in situations that are further specified for evidentiality, specifically with the reported evidential marker (§10.6.6). In
principle, the assertion marker does not occur with the past and present forms of the inferred evidentiality marker (see §10.6.5 below), this might have to do with the fact that inferring that a situation has occurred (inferred evidentiality), doesn’t represent the confidence needed for the speaker to commit an assertion towards the situation. An alternative analysis for the assertion marker possibly having fused with the inferred evidential marker is presented §10.6.5 below (although an inference in the future tense can be marked with the assertion marker).

10.6 Evidentiality

10.6.0 Introduction

In this section I present the complex evidentiality system of Kakua, which differentiates between visual, non-visual, inferred, assumed and reported evidentiality.

In Kakua, the different evidentiality-marking morphemes serve to indicate a number of ways in which the speaker relates to the proposition. Whether or not the speaker is revealing a commitment to the veracity of the proposition is less relevant than is expressing the source from which the speaker presents the proposition. In other words, although it is true that evidential markers reveal “the extent to which the speaker is committed to the truth of the proposition”, as in Bybee et al.’s (1994:179) definition of epistemic modality, indicating the source of information (as in Aikhenvald 2004:3 definition of evidentiality) seems to be the primary meaning of Kakua’s evidentiality markers. Thus, I assume here that evidentiality in Kakua serves to express information source, though it may also imply epistemic modality. The latter is, however, not its primary function, given that evidentiality in Kakua can also, but not exclusively so, encode the commitment of the speaker towards the validity of the proposition. In this sense, the primary function of evidentiality in Kakua is to provide information source, and only optionally it can also provide a truth value of the proposition (epistemic modality).

The different markers encoding evidentiality, and their semantics and morphosyntactic hosts, are summarized in Table 10.5.
Table 10.5. Evidential markers in Kakua

<table>
<thead>
<tr>
<th>FORM</th>
<th>SEMANTICS</th>
<th>GLOSS</th>
<th>HOST</th>
</tr>
</thead>
<tbody>
<tr>
<td>ĭ-</td>
<td>Non-visual, first hand: expresses that the situation was somehow directly</td>
<td>‘NONVIS’</td>
<td>verbs</td>
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<td></td>
<td>experienced by the speaker through some sensorial means different from</td>
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<td></td>
<td>the visual one (§10.6.2).</td>
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<td></td>
</tr>
<tr>
<td>t- ~ ti-</td>
<td>Second-hand: used to indicate an indirect experience of the situation.</td>
<td>‘EVID’</td>
<td>verbs</td>
</tr>
<tr>
<td></td>
<td>Information based on a second-hand source (§10.6.3).</td>
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<tr>
<td>=tagá</td>
<td>Inferred evidentiality: used to indicate an inference (§10.6.4).</td>
<td>‘INF.EVID’</td>
<td>verbs</td>
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<tr>
<td>=ta</td>
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<td>and</td>
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<td>other</td>
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<tr>
<td>=tabe</td>
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<td>parts</td>
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<td></td>
<td></td>
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<td>speech</td>
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<tr>
<td>=dê</td>
<td>Inferred future evidentiality: used to indicate an inference of a situation</td>
<td>‘FUT.INF.EVID’</td>
<td>verbs</td>
</tr>
<tr>
<td></td>
<td>to occur in the future (§10.6.4).</td>
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<td>and</td>
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<td>other</td>
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<td></td>
<td>speech</td>
</tr>
<tr>
<td>=wit</td>
<td>Reported evidentiality: expresses that the information is based on</td>
<td>‘REP.EVID’</td>
<td>verbs</td>
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<tr>
<td></td>
<td>information reported by someone else (§10.6.5).</td>
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<td>and</td>
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<td>other</td>
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<td>speech</td>
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</tbody>
</table>

A simple proposition, such as, for example, ‘he is coming’, receives different morphemes that further specify whether the speaker saw the event herself, knows about it because through other sensorial sources, heard about the arriving from someone else, or infers the arriving based on evidence that can be corroborated. These different forms are shown in the following subsections. Expressing visually experienced situations is described in §10.6.1. Expressing situations that come from sensorial means other than visual is described in §10.6.2. The coding of second-hand evidentiality is described in §10.6.3. Associated with second-hand evidentiality, additional morphemes may occur; these express specifications such as inference, §10.6.4, or reported speech, §10.6.5.

10.6.1 Visual evidentiality

When the proposition is referring to a situation that the speaker herself saw or sees occurring, it does not receive any evidential marking. Despite the lack of a ‘visual evidential’ morpheme, it is important to describe it here as part of the evidential system, because it is in fact the lack of a marker that establishes a contrast between visually witnessed or experienced situations and the rest of the evidentiality specifications.
Visual evidentiality usually corresponds to propositions that are conveyed as realis situations (situations “portrayed in the realm of a ‘real’ world”). Thus, it is not uncommon that a construction marked with the realis enclitic is assumed to have been visually experienced by the speaker.

A few examples of propositions presented as visually experienced are given below:

83) \(\text{beh} = \text{na} = \text{ka}\) \(\text{wā} = \text{ʧāhāp}\)  
\(\text{go} = \text{DECL} = \text{ASS}\) \(1\text{SG} = \text{PROG}\)  
‘I’m leaving now’

84) \(\text{b̥i}\) \(\text{n̥in}\) \(\text{hūptʃi} = \text{di}'\) \(\text{w̃m}\) \(\text{tūliʔi}\)  
\(\text{now}\) \(\text{THIS}\) \(\text{year} = \text{OBJ}\) \(1\text{SG}\) \(\text{manioc}\)  
\(\text{wā} = \text{tah}-\text{ap} = \text{b̥i}\)  
\(1\text{SG} = \text{plant-PST} = \text{REM.PST}\)  
‘This year I, I planted manioc’

85) \(\text{hiwi-di}ʔ\) \(\text{wā} = \text{ʔūʔ} = \text{na} = \text{be}\)  
\(\text{tapir} = \text{OBJ}\) \(1\text{SG} = \text{dream} = \text{DECL} = \text{REC.PST}\)  
‘I dreamed about a cow (tapir)’

86) \(\text{pāwāʔ}\) \(\text{tah-} \text{at} = \text{di}'\) \(\text{beh} = \text{na} = \text{ka}\) \(\text{ʔā} = \text{ʧāhāp}\)  
\(\text{fish.sp}\) \(\text{plant-NMLZ} = \text{OBJ}\) \(\text{go} = \text{DECL} = \text{ASS}\) \(3\text{SG.M} = \text{PROG}\)  
\(\text{bikā}\) \(\text{ʔā'} = \text{hîtʃa-ʔid}\) \(\text{ʔā} = \text{diw} = \text{na} = \text{ka}\)  
\(\text{AT.LAST}\) \(3\text{SG.M.POSS} = \text{feet-CL.container}\) \(3\text{S.M} = \text{carry} = \text{DECL} = \text{ASS}\)  
‘he is going to fish guabina fish, he is putting his shoes on’

Visually perceived experiences usually refer to the first person, but can also refer to other persons when the speaker is seeing the situation as it develops (as in (86) above). Compare example (86) with (87) below, where a second speaker is repeating the information stated before, but here this second speaker hears the event of someone else putting on his boots. Because the speaker stating the proposition in (87) does not see the event taking place, he uses the prefix \(\text{i}-\) for non-visual evidentiality, while flashing light towards the person wearing the boots, trying to verify the development of the event:

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12 Is important to note here that the ‘real world’ in Kakua also include spheres that are not necessarily perceived as ‘real’ in mainstream western cultures. Dreams, shamanic visions, ghosts, and the world of the dead, for example (as in (85) above), are all part the ‘the real’ world in Kakua culture, or at least as expressed in their language.
87) ʔãf = hǐfaʔ ʔid ʔã = i-diw = na = ka
3SG.M.POSS = feet-CL.container 3S.M = NON.VIS-carry = DECL = ASS
‘he is putting on his boots’ (I hear him doing so).

The non-visual evidential is very rarely used; other evidential markers are preferred. The non-visual evidential is described below.

10.6.2 Nonvisual evidentiality

Nonvisual evidentiality in Kakua is a category which indicates that the situation was experienced by the speaker on a firsthand basis through sensorial means other than visual. Nonvisual sensorial means include those of smelling, hearing, tasting, or feeling through the skin. As opposed to the reported category, which refers to a situation in which a speech report concerning the event was heard, ‘hearing’ in the nonvisual category implies that the speaker directly heard the situation taking place. To indicate nonvisual evidentiality, the prefix ĩ- is used (as shown in (87) above), and it is glossed here as ‘NON.VIS’. This form does not occur very often in my data. It was given to me especially in elicitation sessions, but in texts of conversations, narratives, etc., its occurrence is very limited. Some examples are presented below in (88) and (89) from natural text, and in (90) from elicitation:

88) dépaʔ wã =ʧãh -bip waj paʔ
HOW 1SG = do-FUT pull like.this

ʔã = ĩ-win = ka
3SG.M = NON.VIS-be.dead = ASS
‘how am I going to do… I pulled (him out) and like this, he is dead!’ (I felt he was dead)’

89) nin = bũ jũg – ʔên ʔit-wiri=kan = hĩ kăn = jũb
this = LOC search.in.hole-see hole-not.exist = REM.PST 3SG = INTS

pủba ʔit-bit ʔã = ĩ-him-ip = hĩ
EMPH hole-DIM 3SG.M = NON.VIS-exist-PST = REM.PST
‘I searched in a hole on this side and there was no hole, and there I felt there was a hole (on the other side)’

90) ʔã = ĩ-bìw = na = ka
3SG.M = NON.VIS-come = DECL = ASS
‘he is coming’ (His noise gives him away, the speaker can hear him coming)

13 Perhaps an evaluation of the different speech genres or speech situations, such as conversations, narratives, etc., and their interaction with different tenses, can give a clearer picture regarding the use of this evidential marker.
One’s own personal states, such as feelings, or thoughts, however, are not marked with this nonvisual evidential prefix. Instead, the unmarked form (visual) is used. This seems to be the opposite of the common prediction of the nonvisual category in some of the Vaupés languages (see for example Ramirez 1997 for Tukano, Epps 2008 for Hup).

As the examples above show, the use of this nonvisual evidential is not restricted to the first person, as it can refer to situations being performed by a third person (as in (87) and (90) above). In these examples the event is being undertaken by a third person, but the evidential indicates that the speaker is basing her knowledge of the situation on her own sensorial experience of the situation taking place, that is, the speaker hears the event taking place and presents it as such, though the event is not being carried out by the speaker herself.

In some languages with evidentiality systems, the nonvisual evidential is derived from verbs of perception such as ‘hear’, or ‘see’ (c.f., Aikhenvald 2004:174f). The nonvisual evidential marker in Kakua does not have a clear etymological source, either within Kakua or in Nikak. In Nikak no such category has been reported, nor are there verbs in Kakua meaning ‘see’ or ‘hear’ that could be related to Kakua ī-, in the data that I have gathered for Kakua.

Finally, it is also important to note that a nonvisual category encoding information which was directly experienced by the speaker (by sensorial means different from visual), has been described for many languages of the Vaupés area (c.f., Barnes 1990 for Tuyuca, Ramirez 1997 for Tukano, Aikhenvald 2003, 2004 for Tariana; Epps 2008 for Hup among others). This brings up the possibility that the nonvisual evidential prefix in Kakua might reflect an areal feature. If there is a correlation of the nonvisual evidential in Kakua with those of its neighboring languages, I propose that it is likely that the prefix was already in the language before Kakua came in contact with Tukanoan languages. Perhaps the prefix had a different meaning, but in any case I am more inclined to think that the form itself is unlikely to be to a borrowing. I propose this for two reasons:

i) on the one hand, the few (identifiable) morphological borrowings in Kakua (with the exception of the terminative preposition ɨ‘TERM’, see Chapter 12), correspond to forms that occur after the stem, primarily because most of the languages spoken in the Vaupés area do not have prefixing positions;14 thus, if the nonvisual prefix in Kakua were to correspond to a borrowing from a neighboring language, it would be somehow strange to adopt it as a prefix in Kakua, instead of as a post-stem form if it came from a suffix. If it came from a prefix, it would be easily identifiable from the source language.

ii) Kakua has a limited number of prefixes, and at least one of them (the habitual marker) can be said to be a form inherited from proto Kakua-

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14 Gómez-Imbert, in personal communication, mentioned that Barasana (ET), for example has some prefixing positions. It is not, however, a widespread pattern of languages spoken in the Vaupés, which are mainly suffixing languages.
Nikakan. It will be difficult to strongly support an argument in which, instead of considering prefixing forms as a shared feature in the proto-language, these prefixing forms in Kakua were to be considered an innovation entering Kakua through contact with neighboring Vaupés languages, when what has been noted mostly is that Kakua has borrowed quite a few suffixing or post-stem forms.

These types of questions remain unanswered and need further comparative and diachronic research.

10.6.3 Second-hand evidentiality

The categories of visual (unmarked) and nonvisual, described above, can be described as firsthand evidential categories. Additionally, Kakua has two other categories which indicate that the proposition was not directly experienced by the speaker. These two categories of ‘second-hand’ evidence express inferences and reported evidence. Each of these has specific morphemes, =ta (with its allomorph =tagā) and =dē for inference (§10.6.4 below), and =wit for reported evidentiality (§10.6.5 below). These two second-hand categories may co-occur with a prefix, which indicates inferential evidentiality in general, without specifying whether or not this inference is based on some else’s report or not, and which can be used on its own. The co-occurrence of the second hand prefixes and reported or inferred evidentiality clitics is not obligatory.

This prefix has three allomorphs: t- ~ ti-, and t- ~ ta- and are all glossed as ’EVID’. The forms t- ~ ti- co-occur with the reported evidential clitic =wit, and the forms t- ~ ta-co-occur with the inferred evidential clitics =ta, =tagā. Both prefixing forms ti- and ta- typically undergo a phonological reduction to t-. It is possible that in a future stage of the language the difference between the two forms ti- and ta- will be lost, and only the form t- will survive to encode second-hand evidentiality, where further specification for inference or reportative will be required (as it is in synchronic Kakua). Moreover, the difference between ti- and ta- is only rarely made by elder speakers, and younger speakers only use the prefixed form t- for both inference and reportative evidentiality. Thus, because of this possible future path towards a neutralization of the prefixed forms into one single ‘second-hand’ evidentiality marker in need of further specification, I propose that these are synchronically different markers, but will at some point merge together into one.

Even for the elder generation that still makes the difference between ti- and ta-, the difference seem to be made exclusively when a clitic of inference or reportative is not present. In the remaining cases when the clitics for inference or reportative are marked, then the prefixing forms ti- or ta- seem to be more rarely marked fully as such, and are rather found as t-.

A few examples are shown below. More examples of the co-occurrence of the second-hand prefix with clitics of inference or reported evidentiality can be found below in §10.6.4 and §10.6.5 respectively.
91) \(bāb = tʃ'a?\) \(t = tʃə\)-beh-ep = be
   be.white = PROG 3PL = EVID-go-PST = REC.PST
   ‘they left when it was clearing up (at dawn)’ (I infer)

92) \(ʔã = t-ʔɨ\) \(ʔã = t-hîb\)
   3SG.M = EVID-sleep 3SG.M = EVID-avenge/consequence jaguar
   \(kǎn = diʔ\) \(ʔã = t-hěm\-ep = wi = be\)
   3SG.M = OBJ 3SG.M = EVID-eat-PST = REP.EVID = REC.PST
   ‘because he fell asleep, the jaguar ate him’ (reported information)

Prefixes in Kakua must be preceded by a proclitic (with the exception of the
reflexive/reciprocal prefix \(mik-\), see Chapter 7). Thus, a second-hand evidential
prefix (and this applies also to the nonvisual evidential prefix described above) must
be preceded by a proclitic. If there is no person proclitic, the clause is only marked
with the relevant enclitic, as in (93) below:

93) \(hēj = kan = ta = be\)
   know-NEG = INF.EVID = REC.PST
   ‘(they) didn’t know’ (I infer)

10.6.4 Inferred evidentiality

Encoding inferences in Kakua requires at least one morphological marker. As
described above, Kakua has a prefix form, \(t\)- or \(ta\)-, which expresses second-hand
evidentiality in general. Additionally, the encliticized forms of these evidentiality
markers further specify inference in a more narrow sense, and often co-occur with
the second-hand evidential prefix.

The forms of these enclitics are: = \(ta\) ~ = \(tagâ\), and = \(dē\). These forms always
encode inferred evidentiality, but they are used in combination with different tenses.
Unlike the forms = \(ta\) and = \(tagâ\), the form = \(dē\) does not co-occur with the second
hand prefix \(t\) ~ \(ta\)- (described in §10.6.3 above). The clitic = \(dē\) encodes an inference
made regarding a situation at a future moment. It is glossed here as a future inferred
evidential ‘FUT.INF.EVID’. The inference expressed with = \(dē\) is based on tangible
evidence or evidence that can be corroborated that a certain situation is likely to
occur. Note in example (97) below that the enclitic for future inference = \(dē\) does
not necessarily need to co-occur with the future suffix -\(bip\) ‘FUT’. Therefore, the
future inference enclitic = \(dē\) could also be analyzed as expressing both evidentiality
and future tense.\^{15}

\^{15} It is possible that the form of this future inferred evidential has some relation to the basic form
\((dē-\) of interrogative pronouns and questions words (e.g., \(dēdē\) ‘what’, \(dēdî\) ‘which’, \(dēdê\) ‘who’, see
Chapter 7, §7.2), although the semantic connection between interrogatives and inference remains unclear.
94) \( \text{beh-bip} = \text{dê} = \text{ka} \)
\( \text{go-FUT} = \text{FUT-INF.EVID} = \text{ASS} \)
‘I’ll leave (tomorrow) (most possibly if it doesn’t rain)’

95) \( \text{wà} = \text{beh-min} = \text{dê} = \text{ka} \)
\( 1\text{SG} = \text{go-IMM,FUT} = \text{FUT-INF.EVID} = \text{ASS} \)
‘I’ll leave (soon, most possibly, depending if circumstances are well)’

Using any other of the inferred evidential clitics in future tenses is not admissible. The same construction in (96), for example, will not be possible to express using the inferred evidential = \( \text{tagà} \) as illustrated by the unacceptable sentence below:

96) \* \( \text{wà} = \text{beh-min} = \text{tagà} \)
\( 1\text{SG} = \text{go-IMM,FUT} = \text{INF,EVID} \)
Intended meaning ‘I’ll leave (soon, most possibly)’

The future inferred evidential can attach to parts of speech other than verbs. An example of the future inferred clitic attached to an interrogative pronoun is given below:

97) \( \text{dedéʔ} = \text{dè} = \text{tigà} \)
\( \text{kàk} = \text{na} = \text{ka} \)
\( \text{WHAT} = \text{FUT-INF.EVID} = \text{EMPH} \)
\( \text{person} = \text{DECL} = \text{ASS} \)
‘will it probably be a person indeed?’

For tenses other than the future, the basic form of the inferred evidential is the clitic = \( \text{ta} \). If the inference refers to a situation occurring in the remote past, then = \( \text{ta} \) immediately precedes the remote past marker = \( \text{hĩ} \), as in (98). If the situation occurred in the recent past, then = \( \text{ta} \) immediately precedes the recent past clitic = \( \text{be} \), as in (99):

98) \( \text{mandú-wà} \)
\( \text{ʔĩ} = \text{t-him-ip} = \text{ta} = \text{hĩ} \)
\( \text{proper name-PL} \)
\( 3\text{PL} = \text{EVID-exist-PST} = \text{INF,EVID} = \text{REM,PST} \)
\( \text{kèt} = \text{hĩ} \)
\( 3\text{PL} = \text{ALSO} = \text{REM,PST} \)
‘Manuel and those with Manuel, they were there (I infer)’

99) \( \text{beh-nit} = \text{hĩ} \)
\( \text{kèt} \)
\( \text{ʔĩ} = \text{t-hěnʔ-cp} = \text{ta} = \text{be} \)
\( \text{go = SUBR} = \text{REM,PST} \)
\( 3\text{PL} = \text{EVID-eat-PST} = \text{INF,EVID} = \text{REC,PST} \)
‘after having gone, they ate’ (I infer from food leftovers)

Making inferences referring to a present situation, the form of the inferred clitic is = \( \text{tagà} \). It is possible that this form comes from a fusion of the inferred evidential = \( \text{ta} \) (shown above), and the marker of assertion = \( \text{ka} \), which by some
phonetic processes became [ga], acquired tone, resulting in the form that is now invariably =tagā (never =taka). Note that the marker of assertion =ka does not co-occur with the inferred evidential marker =ta. To the question of where his father was at the moment of speech, the speaker replied as follows:

100) mâwa =tagā
   kill =INF.EVID
   '(he) is killing' (I infer, that is why he is not here)

   The use of the form =tagā is not restricted to situations in present time. A good number of examples in the corpus involves the co-occurrence of the form =tagā and the general past suffix -Vp. In these cases, however, the form =tagā never occurs together with either the recent past or remote past clitics (if these tense clitics were to occur, the form preceding them would always be =ta and never =tagā). This is illustrated in the following example:

101) nin-pa? ka
    this-be.like.this =ASS
    ʔ = t-nib-ήp = tagā
    3PL = EVID-say-PST = INF.EVID

   hunhātiʔ = heʔ?
   long.ago = INTS
   'like this they said, long ago’ (inferred).

   It is important to recall also that the assertion marker =ka does not occur with the inferred evidential marker =ta in either remote or recent past tenses. Additional examples illustrating the occurrence of the inferred evidential clitic in different tenses are given below:

102) ʔā = t-hīw'-hip = tagā
    3SG = EVID-come-DUB = INF.EVID
    bikā
    AT.LAST
    'he might be coming at last’

103) bāʔdaʔ? teluffaʔ?
    deceased arrow.container big
    bidī ʔ = t-bibuʔ'-hip = tagā
    3PL = EVID-have-DUB = INF.EVID
    '(I believe) the forefathers might have a big quiver (container of arrows)’

104) kan = hiʔ?
    ket
    ʔī = t-ʔīw'-ʔp = ta = be
    3SG.M = INTS
    3pl
    3PL = EVID-sleep-PST = INF.EVID = REC.PST
    ‘with it, there, they slept’ (inferred information, hammocks left behind)

105) mī ʔī = t-ʔāh-ap = ta = be
    house
    3PL = EVID-do-PST = INF.EVID = REC.PST
    'they built a house’ (inferred)
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106) baj-nti

ʔã = t-wâj-áp = ta = hĩ

be.small-ADJVZ 3SG.M = EVID-leave.prints-PST = INF.EVID = REM.PST

'(there it was!) he (the alligator) left a small print on the sand'

107) ʧèj-kêj-wâ = di?

ʔã = t-beh-hin = tagã

night-ant-PL = OBJ burn = OBJ 3SG.M = EVID-go-DUB = INF.EVID

'perhaps he went to burn night ants'

Finally, the inferred evidential =ta and its related form =tagã, can attach to other parts of speech. This is illustrated in the following example:

108) tejʔɓoa-hĩ = tagã

finger.nail-DUB = INF.EVID

'maybe it was his fingernails (scratching the tree)'

10.6.5 Reported evidentiality

Kakua marks reported information with the enclitic =wit, glossed ‘REP.EVID’. This reported enclitic has a clear etymological source in the Kakua verb wit ‘command’ (see comments on this at the end of Chapter 8). This clitic is also used when quoting someone or in narratives such as mythological stories which are regarded as events that did occur but were experienced by people who told them to someone else. It is also used when the original source of the information is unknown, or unavailable, but nevertheless the information is not regarded as imaginary.

109) manji

tib-ip = wit = hĩ

curarapeoison hurt-PST = INF.EVID = REM.PST

ʔã = t-bihã?-up = wit = hĩ

3SG.M = EVID-have-PST = INF.EVID = REM.PST

'he had strong curare’ (it is said).

110) wòoo  nih-na  kan  bidi-jã = na = wit = hĩ

wòoo say = DECL 3SG.M be.big-make.noise = DECL = REP.EVID = REM.PST

'when it went ‘wooooo’, was when it sounded louder (it is said)’

111) kun = di?

hĩwʔ-piʔ?

wiʔ-kan = ka

DIST.DEM = OBJ come-stop not.exist-NEG = ASS

nih-na = wit-hĩ

say = DECL = REP.EVID = REM.PST

‘they came to that distant place, stopped and said “there is nothing”’ (it is said).
112) **panti-na kân ũ-baĵ̃pûba nin=di?**
   and.so = DECL 3SG.M 3PL = brother.in.law EMPHZ this = OBJ
   wâd-hîw̄̃ nin=di?
   go.inside-come this = OBJ
   ũ=t-pâĵ-pû̃-w̄̃ =wît=hî
   3SG.M = EVID-wait-be.standing-PST = REP.EVID = REM.PST
   ‘and so, their brother in law came into a part like this one here and waited there standing up’ (it is said)

113) **hîhî, nin-man =wît=hî**
   yes, this-side = REP.EVID = REM.PST
   ũ=t-deĵ-hîhî =na =wît=hî
   3SG.M = EVID-go.down-arrive = DECL = REP.EVID = REM.PST
   ‘yes, on this side (is said), he came down and arrived (it is said)’

10.6.6 **Getting the right evidential marker**

It is noteworthy that there is a strong awareness among Kakua speakers about using the ‘correct’ evidential marking for each situation. The following episode that occurred during my fieldwork illustrates how important evidential marking is in Kakua speech. The following example comes from a conversation after watching a documentary movie about the Nîkak. Here the speaker is telling what he saw the night before in the movie. Since this was a movie, choosing the correct evidential marker is non-trivial, especially because the speaker himself had seen the Nîkak people before when they were brought to the Kakua village in the late 1980s. Thus, he appears to have regarded the images in the movie as projections of situations in the real world. However, a movie, or a photographic image, is not regarded as a direct visual experience, but as information experienced through some other sensorial means. The speaker hesitated on what evidential marker he should use, and, as seen in the example below, he repeats the same predicate (**ũ-t=jîk̂-bâb̂-bâb̂=hî** 3PL = EVID-cook-drink-drink = REM.PST ‘they cooked and drank’) various times until he finally decides that expressing the proposition as visually experienced, without any formal marking, is the most accurate way to tell his version of the story. The text continued with the speaker only using the visual (unmarked) form.
The speaker’s account above is ended by the speaker with the following sentence, which is again unmarked, i.e. presented as visually experienced:

115) him=ip = be  
    fîn  
    ʔî = ?ên-ep = be  
    exist-PST = REC.PST  
    yesterday  
    1PL = see-PST = REC.PST

‘that is what we saw yesterday’
Chapter 11
Alignment and word order

11.0 Introduction

This chapter describes word order in simple clauses (sec. 11.1) and the alignment of argument NPs with respect to the predicate in simple clauses (sec. §11.2-§11.5). Complex clauses and their syntactic behavior are presented in Chapter 13.

11.1. Word order

Kakua has a predominant preference for an (S)OV order of constituents, where the subject NP can be omitted under certain semantic and discourse conditions (These conditions are discussed in Chapter 6 on case marking and grammatical relations, and include animacy and accessibility.) Additionally, subject arguments can be indexed on the predicate by means of cross-referencing proclitics that agree in person and number with the subject argument, and gender for 3rd person singular subject arguments. A detailed discussion of the criteria governing the omission or full expression of subject argument NPs and cross-referencing proclitics is given in Chapter 6.

Whenever overtly expressed, the subject argument most frequently precedes both the object(s) argument(s) and the verb. The verb is predominantly in final position. The following examples illustrate this preferred SOV order of constituents. An SV intransitive clause is illustrated in (1), an example in which the subject NP of a transitive clause is omitted (OV) is illustrated in (2), and sentences with subject, object, and verb are illustrated in (3)-(5):

1) kān̂ʔ mi=ʔè h-ep=be=buh
   3SG.F 3SG.F = call-PST = REC.PST = DIR
   'she called (from far away)'

2) mēm=diʔ=ka mi=t-ʔiʔ-hūj-up=wiʔ=hī
   2SG = OBJ = ASS 3SG.F = EVID-take.out-hear-PST = REP.EVID = REM.PST
   'she asked you'

3) hiw miihiw=diʔ ?ā=t-tfāk = na = wit = be
   jaguar dog = OBJ 3SG.M = EVID-bite = DECL = REP.EVID = REC.PST
   'the jaguar bit the dog, it is said'
4) wēm wîʔ-daʔ-na = diʔ wā = ?un-bip = na = ka
1SG basket-CL:round-PL = OBJ 1SG = weave-FUT = DECL = ASS
‘I’m going to weave baskets’

5) Egā dāwa-daʔ = diʔ Gabī = diʔ
Edgar rubber-CL:round = OBJ Gabriel = OBJ

?qā = wîʔ = na = be
3SG.M = give = DECL = REC.PST
‘Edgar gave a ball to Gabriel’

Alternatively, other orders are also accepted. However, when these occur, they tend to be stricter as regards the morphological encoding of arguments. An OSV order, for example, tends to favour the overt marking of case on the object argument, and preferably also the overt expression of the subject cross-referencing proclitic on the predicate:

6) jegēʔ = diʔ flī fī = waj = na
clothes = OBJ 1PL 1PL = pull = DECL
‘we sewed clothes’

The least accepted order seems to be VSO, followed by OVS. The latter was accepted by speakers if the information given was visually witnessed, but even in these cases it was considered as a rather odd order. The scale from most accepted to least accepted, or from most preferred to least preferred (and least frequent) orders conforms to the following scale. All of these orders are attested in naturally occurring texts and elicitation:

Figure 11.1 Acceptability scale of order of constituents in Kakua

<table>
<thead>
<tr>
<th>most preferred</th>
<th></th>
<th>least preferred</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOV &gt; OSV &gt; OVS &gt; SVO &gt; VSO &gt; VOS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The scale above shows that orders towards the least preferred end of the scale are those in which the object argument follows the verb and the verb is not in final position. Kakua’s preferred order, thus, can be described as basically OV.

The scale shown above is based on general impressions of both texts and elicitation. A more accurate description of these alternate orders would require a quantitative approach of the occurrence of each of these orders throughout the corpus.

Clauses with adjuncts tend to place the adjunct immediately after the subject of the clause. Other orders, however, are also found. The most common linear order of constituents in a clause with an adjunct follows the template below:
Examples (7)-(9) below illustrate intransitive (7), transitive (8), and ditransitive clauses (9) with adjuncts. Note that in all cases the adjunct (highlighted in boldface) follows the subject NP.

7)  
Laureano  \( tʃɨ̌ \) = \( bǔ \)  
Laureano  \( tʃɨ̌ \) = \( t\)-\( bęp \)-\( at \)  
\( ?ā = t\)-\( nā \)? = \( na \)  

‘Laureano needs to go to town’

8)  
ʔIna  \( tʃeibit = hēʔ \)  
Marina  \( tʃɨ̌ j = diʔ \)  
\( mi = hēm’\) = \( na = ka \)  

‘Marina eats manioc bread in the morning’

9)  
\( njɨ̃ \)-\( ?dip \)  
\( f̃n \)  
\( Mitū = bō \)  
\( ?ebeb’ = diʔ \)  

\( mi = diʔ \)  
\( ?ā = wāʔ-\( ip = be \)  
\( wild.pig = OBJ \)  
\( 3SG.M = give-PST = REC.PST \)  

‘Bone of Opossum gave Venom a wild pig yesterday in Mitú’

Despite the preferred SOV constituent order, the object NP may also precede the subject NP. This often occurs when the object argument is being emphasized in discourse, resulting in an OSV order:

9)  
\( ?lna = diʔ \)  
\( nākni \)  
\( ?ā = māw = na = ka \)  

‘the monkey hits Marina’

11.2. Alignment

The alignment system in Kakua conforms to the prototypical nominative-accusative type, whereby the intransitive subject and the most agentive argument of a transitive clause are expressed in the same way, but different from the least agentive argument of a transitive clause: \( A = S \neq O \). Because intransitive subjects (S) and the most agentive arguments of transitive clauses (A) are treated equally in Kakua, I refer to both as ‘subjects’. Subject arguments are not morphologically marked by case. Cross-referencing proclitics attach to the verb and agree in person and number with the subject arguments of the clause. All other arguments (i.e., arguments functioning in any role different from subject) are morphologically marked for case, if the requirements for differential object marking are met (see Chapter 6). Alignment of object arguments is neutral, meaning that object arguments...
in the semantic roles of patients, themes, and recipients are all encoded in the same way: P = T = R (see Chapter 6).

The morphological marking of arguments in Kakua shows both head and dependent marking (in terms of Nichols 1986). While subject arguments are head-marked (morphologically indexed on the predicate), object arguments are dependent-marked by morphological case markers on the object NPs.

The remainder of this chapter is divided into two parts. Section §11.3 focuses specifically on the alignment of subjects, while section §11.4 describes the alignment of objects. A summary is given in §11.5, listing the most relevant information regarding alignment in Kakua.

11.3 Subject alignment

Subject arguments of intransitive verbs in Kakua are not treated distinctly from those of transitive verbs. In other words, both A and S arguments behave in the same way both morphologically and syntactically, exhibiting a prototypical nominative-accusative type of morphosyntactic alignment: A = S ≠ P. Subject arguments of a clause can be identified in two ways: they are NPs lacking morphological case marking for case (as opposed to other case-marked arguments), on the one hand, and they trigger morphological agreement on the verb, on the other hand. Compare the subject of the intransitive verb ũêg’ ‘vomit’ in (11) with the subject of the transitive verb hĕm’ ‘eat’ in (12) below. Note that in both cases the subject argument is expressed by the pronoun kǎn’ ‘3SG.M’ and it is indexed on the verb with the proclitic mi = ‘3SG.F’; the lack of morphological case marking and the syntactic position of the subject noun phrase and the indexing on the verb seen in the intransitive construction in (11) are the same as those in the transitive construction in (12):

11) kǎn’
mi = ũêg = na = ka
3SG.F 3SG.F = vomit = DECL = ASS
‘she is vomiting’

12) kǎn’
tʃɪ̌-daʔ,
3SG.F manioc.bread-CL:round, everything = INTS,
mi = hĕm’-ep = be
3SG.F = eat-PST = REC.PST
‘she ate the manioc bread, everything really!’

As mentioned above, a clause in Kakua can be formed by a subject and a predicate, or by a predicate with a subject proclitic (in addition to no expression of subject at all, if recoverable from the context). Consider the following intransitive clauses. In (13) the subject argument is fully expressed with a free pronoun kǎn ‘3SG.M’ as well as indexed on the verb with the cross-referencing proclitic ʔā = ‘3SG.M’, which agrees in person, number and gender with the subject NP kǎn.
Compare this to the construction in (14), where the clause is formed by a single predicate with the proclitic \( w\ddot{a} = '1SG' \), indexing the subject argument of this intransitive clause:

13) \[ \text{k\ddot{a}n } \ \ ?\ddot{a} = ?\ddot{w} = na = ka \]
\[ \text{3SG.M } \text{3SG.M = sing = DECL = ASS} \]
'he is singing'

14) \[ \text{w\ddot{a} = p\ddot{i} - \ddot{u}m = na = ka} \]
\[ \text{1SG = HAB-be.afraid = DECL = ASS} \]
'I’m always afraid'

Subject arguments can express the semantic roles of agents or experiencers. Examples (15) and (16) show subject arguments of stative verbs in which the subject arguments have the semantic role of 'patient', a prototypical semantic role of subjects of stative verbs:

15) \[ \text{w\ddot{e}m } \text{w\ddot{a} = p\ddot{i}-\ddot{h}\ddot{e}j?-\ddot{w}e/-\ddot{e}kan = be} \]
\[ \text{1SG } \text{1SG = HABT-know-NEG = REC.PST} \]
'I used to know'

16) \[ \text{w\ddot{e}m } \text{b\ddot{i} } \text{w\ddot{a} = t\ddot{f}j\ddot{u}-\ddot{f}w\ddot{i}\ddot{l}i} \]
\[ \text{1sg } \text{today } \text{1SG = rest-TEL.PROG} \]
'I am, today, still resting'

Subjects of intransitive verbs of motion or active verbs prototypically have the semantic role of agent. This is illustrated in example (17) below:

17) \[ \text{k\ddot{a}n } \text{?\ddot{a} = t\ddot{f} -\ddot{g}b? -\ddot{da}\ddot{b} -\ddot{be} -\ddot{h} = na} \]
\[ \text{3SG.M } \text{3SG.M = EVID-follow-go.up-go = DECL} \]
'he went back up again'

Finally, subjects of intransitive clauses involving verbs of mental or emotional processes (or verbs of perception) prototypically have the semantic role of experiencers. Examples (18)-(20) below give an illustration of these types of clauses in Kakua:

18) \[ \text{k\ddot{a}n\ddot{\prime} } \text{mi = p\ddot{i}-\ddot{t}k = na = ka} \]
\[ \text{3SG.F } \text{3SG.F = HAB-be.embarrassed = DECL = ASS} \]
‘she is usually embarrassed’

19) \[ \text{w\ddot{e}m } \text{b\ddot{\ddot{d}}\ddot{\ddot{i}} } \text{w\ddot{a} = h\ddot{\ddot{g}}\ddot{a}\ddot{\prime} = \ddot{h}\ddot{\ddot{i}} } \]
\[ \text{1SG } \text{be.big } \text{1SG = be.sad = REM.PST} \]
‘I was very sad/very sorry’
Examples (12)-(20) above illustrate the expression of subject arguments in intransitive clauses, showing that, although the subject noun phrase does not receive morphological marking to indicate its grammatical function (i.e. no subject case marker), the verb usually takes a cross-referencing proclitic encoding person and number properties of the subject argument.

The expression of subject arguments in transitive clauses is illustrated in examples (21)-(22), which show that the subject arguments are morphologically and syntactically expressed in the same way as the subject arguments in the intransitive clauses presented in (11)-(20) above. In (21) the subject argument expressed by the NP \textit{w}ā=ʔibi ‘my uncle’ is the instigator of the action expressed by the transitive verb \textit{th}i ‘kill with blowgun’ performed on an object argument with the semantic role of patient, which is morphologically marked with the object case marker =diʔ:

\begin{verbatim}
21) wā=ʔibi wibi =diʔ? ʔā = t-th = na = tagā
     1SG=uncle  bird.sp = OBJ  3SG.M = EVID-kill.with.blowgun = DECL = INF.EVID

tʃāhāp
PROG
‘my uncle must be hunting Curassow (bird.sp)’
\end{verbatim}

Example (22) shows a similar type of clause, where the subject argument is expressed both by the NP \textit{hiw} ‘jaguar’, and indexed on the predicate with the proclitic ‘3SG.M’, agreeing in person, number and gender with the subject argument:

\begin{verbatim}
22) hiw mhiw = diʔ? ʔā = t-tfāk = na = wit = be
     jaguar dog = OBJ  3SG.M = EVID-bite = DECL = REP.EVID = REC.PST
‘the jaguar bit the dog, it is said’
\end{verbatim}

The syntactic position of subject arguments in intransitive and transitive clauses is preferably sentence-initial (see above). Additional examples are given in (23)-(24), displaying constructions involving verbs of perception or mental processes. In (23) the subject is a lexical noun cross-referenced on the verb by the proclitic ‘3SG.M’. In (24) the subject argument is a pronoun and is also cross-referenced on the verb:

\begin{verbatim}
23) newɛ kān’ = diʔ?
     man 3SG.F = OBJ
‘the man sees her’
\end{verbatim}

\begin{verbatim}
24) ?ā = ?en = na = ka
     3SG = see = DECL = ASS
\end{verbatim}
Consider now example (25), in which the subject argument is not expressed through an NP, but indexed on the predicate of the clause only. In this case the resulting constituent order is O = s = V. Example (26) further illustrates the same order, where the noun wâp ‘white capuchin’ is the object of the verb f’âʔ ‘find’, and the subject is expressed by the proclitic f’ĩ = ‘1PL’:

O
25) mi = win- at = diʔ
3SG.F = die-NMLZ = OBJ
‘I want her death’

O
26) wâp = diʔ = hǐ
white.capuchin = OBJ = REM.PST
‘we met the (evil spirit) white capuchin’

11.4 Object alignment

Kakua marks its object arguments with the case marker enclitic = diʔ on the object NP, i.e. a dependent-marking strategy, in terms of Nichols (1986). Unlike subject arguments, object arguments are not indexed on the verb. Examples (27)-(28) below illustrate object case marking:

27) měm = be
wěm = diʔ
2SG = REC.PST
1SG = OBJ
‘you taught me’

28) wěm
kǎn = diʔ
1SG
‘I am jealous of him’

The object case marker clitic = diʔ serves to mark object arguments in several different semantic roles.1 This is exemplified in (29)-(32). (See further discussion on semantic roles and object marking in Chapter 6). Example (29) shows an object

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1 See the comment in Chapter 6 regarding the possibility that the object marker = diʔ might have other functions than marking object arguments, as it also occurs on noun phrases expressing source/goal, as well as on other NPs that are not core arguments.
argument in experiencer role; the object NP in (30) has a recipient role; the object NP in (31) is in a patient semantic role; and the object NP in (32) is in a beneficiary role:

29) \( \text{wěm} = \text{di} \) \( \text{ʔã} = \text{ʔɨ̂} \) \( \text{ma} = \text{na} \)  
   \( 1SG = \text{OBJ} \) 3SG.M = scare = DECL  
   ‘he scares me!’

30) \( \text{kǎn} = \text{di} \) \( \text{ʔã} = \text{ʔɨ̂} \) \( \text{t-hîb} = \text{w} \) \( \text{ɨt} = \text{hĩ} \)  
   \( 3SG.M = \text{OBJ} \) 3PL = EVID-give.pay-PST = REP.EVID = REM.PST  
   ‘they paid him (it is said)’

31) \( \text{wěm} \) \( \text{tũ̂liʔ} \text{t} \text{ɨ} = \text{di} \) \( \text{ʔã} = \text{ʔûj} \)  
   \( 1SG \) manioc = OBJ 1SG = plant-PST = REM.PST  
   ‘I planted manioc’

32) \( \text{kǎn} \) \( \text{ʔã} = \text{nim} = \text{di} \) \( \text{ʔã} = \text{ʔûj} \)  
   \( 3SG.M \) 3SG.M = daughter = OBJ 3SG.M = care.about  
   ‘he loves his daughter’

Kakua treats all object arguments in the same way, including when two or more objects co-occur in di-transitive constructions, both in terms of the use of the object case marker = diʔ and the differential object marking that applies to it.

An example of a ditransitive construction is given in (33) below. This example exhibits a typical ditransitive Kakua verb \( \text{wɨ̃ʔ} \) ‘give’, exhibiting an agent-like subject argument, and two objects, one of which is in a recipient (R) role, \( \text{Gabí} \) ‘Gabriel’, and the other, \( \text{dâwa-daʔ} \) ‘ball-CL:round’ is in a theme (T) role. Two things are important to note here. Firstly, note that all object arguments are marked with the object case marker = diʔ. Secondly, note that all arguments occur before the verb: SOOV.

33) \( \text{Egá dâwa-daʔ = di} \) \( \text{Gabí = di} \) \( \text{ʔã = wɨ̃ʔ} = \text{na} = \text{be} \)  
   Edgar rubber-CL:round = OBJ Gabriel = OBJ 3SG.M = give = DECL = REC.PST  
   ‘Edgar gave a ball to Gabriel’

Example (34) illustrates the ditransitive verb \( \text{ʔh} \) ‘bring’, taking two object arguments (\( \text{kǎn} \) ‘3SG.F’ and \( \text{tũj} \) ‘manioc’), and an adjunct (\( \text{waptʃi} \) ‘manioc field’):

34) \( \text{kǎn} = \text{di} \) \( \text{waptʃi} = \text{na} = \text{bũ} = \text{di} \) \( \text{tũj} = \text{di} \)  
   \( 3SG.F = \text{OBJ} \) manioc.field = DECL = LOC = OBJ manioc = OBJ  
   \( \text{ʔã} = \text{tu-ʔh-ip = w} \text{it} = \text{hĩ} \)  
   3PL = EVID-bring-PST = REP.EVID = REM.PST  
   ‘they brought her manioc from the manioc field, it is said’
With respect to example (34) note, firstly, that the adjunct takes both the locative case marker = bū and the object case marker = diʔ ‘OBJ’ (see Chapter 6). Secondly, note that the adjunct precedes the verb. Additionally, note that the adjunct occurs in between the two object arguments of the clause. This may be related to the fact that there is no overt subject NP in this example. This example thus suggests that Kakua prefers to place the adjunct preceding the verb, but not in clause-initial position, adjuncts thus ending up in the second position within the clause. The preferred ordering of constituents in clauses with adjuncts would then be as follows: S[ADJUNCT]OV, or O[ADJUNCT]V, the second ordering being preferred whenever the subject NP is absent.

Examples (33)-(34) also show that all arguments functioning as objects are marked by the morpheme = diʔ, regardless of their semantic roles. In other words, object arguments in the semantic roles of patient (P), theme (T), goals/recipient (R), are all encoded by the same morpheme. As described in Chapter 6, the order of object noun phrases encoding T, P or R is also free. The alignment of object arguments is thus neutral (as in Croft 2003; Haspelmath 2005; Dryer 2007; Malchukov et. al 2010).

Figure 11.3 Object alignment in Kakua

This type of alignment responds to the functional principles of economy, in that one single marker is sufficient for the coding of all three arguments types (c.f., Malchukov et. al 2010:4).

11.5 Summary

The word order and alignment of arguments in Kakua can be summarized as follows:

- Kakua shows a strong preference for the SOV ordering of its constituents. Alternative orders follow a preferentiality scale, from most preferred SOV to least preferred (but attested with restrictions) VOS.
- Most preferred orders are verb-final, with objects preceding the verb.
- The coding of subject arguments is of the head-marking type.
- Subject arguments are not morphologically marked for case.
- Kakua A arguments and S arguments are not different morphosyntactically. This conforms to a typical nominative-accusative type of alignment, where A and S arguments are equal, while different from P arguments: A = S ≠ P.
The marking of object arguments is of the dependent-marking type. Nouns or NPs functioning as object arguments are marked by case with the case marker =diʔ.

Differential Object Marking (DOM) criteria govern the overtness of morphological marking of object arguments.

The object case marker =diʔ serves to mark NPs functioning as object arguments in several different semantic roles.

The alignment of object arguments corresponds to a neutral type of object alignment, where P = T = R.
Chapter 12
Basic clause structure and types of clauses

12.0 Introduction

This chapter describes the basic clause structure and the different clause types in Kakua. Section §12.1 provides an introductory overview of the minimal requirements to form a clause. Section §12.2 gives a description of copular constructions involving predicative and existential copulas. In addition to affirmative existential copulas, Kakua also has a negative existential copula; this type of negative existential is described in §12.3. Section §12.4 gives a description of predicative possession. This is followed by a description of comparative constructions in §12.5, and non-verbal predicates expressing equation in §12.6. Finally, §12.7 provides a description of the basic locative constructions.

This chapter concludes with a description of Kakua clause types, presented in 4 subsections: declarative clauses in §12.9; interrogative clauses, both polar and content interrogatives, in §12.10; imperative clauses in §12.11; and negative imperative clauses in §12.12. Responses to imperative clauses are described in §12.13, and a summary is found in §12.14.

12.1 Minimal clause

A basic sentence in Kakua is composed of at least one independent clause. An intransitive clause is minimally composed of a predicate (with optional indexation of the subject by means of a cross-referencing proclitic), as in (1); or an optional subject NP and a predicate, as in (2), where the subject NP typically precedes the predicate (SV). Transitive clauses minimally contain a predicate; additionally, transitive clauses typically contain an overt object NP (though not obligatorily); the subject NP is optional, and it may be indexed on the predicate by means of cross-referencing proclitics (3), which are themselves also optional (see Chapter 11 for description of criteria governing the occurrence of proclitics). In transitive clauses, the object NP typically precedes the predicate of the clause (SOV) (4)-(6).

1) $fĩ = f^6 ɨb-ɨb-hĩw = hĩ$
   1PL = return-go.up-come = REM.PST
   ‘we came back up’

2) $kān = m = ɨg = na = ka$
   3SG.F = vomit = DECL = ASS
   ‘she is vomiting’
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3)  měm = diʔ  mi = t-tah-wíʔ  mi = t-tfãhãp
   2SG = OBJ   3SG.F = EVID-plant-give   3SG.F = EVID-PROG
   ‘she’s helping you plant (manioc)’

4)  kãŋ’  tʃɨ̃̌-daʔ,  niʔat = jũb,
   3SG.F   manioc.bread-CL:round,   everything = INTENS,
   mi = hẽm’-ep = be
   3SG.F = eat-PST = REC.PST
   ‘she ate the manioc bread, everything really!’

5)  hiw  mihiw = diʔ  ?ã = t-tʃãk = na = wit = be
   jaguar   dog = OBJ   3SG.M = EVID-bite = DECL = REP.EVID = REC.PST
   ‘the jaguar bit the dog’

6)  Egá  dâwa-daʔ = diʔ  Gabí = diʔ  ?ã = wĩʔ = na = be
   Edgar   rubber-CL:round = OBJ   Gabriel = OBJ   3SG.M = give = DECL = REC.PST
   ‘Edgar gave a ball to Gabriel’

12.2  The affirmative existential copular verb *him*

The affirmative existential verb *him* is used in predicative and existential
copular constructions to encode existence, and also permanent states and attribution,
as discussed in this section. Equative constructions in Kakua use a different strategy,
and are formed by the juxtaposition of the NPs without the use of the existential verb
*him* (see §12.6 below). Note that the verb *him* ‘exist’, which is referred to as a copula
here, can function as a predicate on its own, whereas the canonical definition of
copulas expects copulas to not be able to function as predicates on their own right;
see Hengeveld (1992). Examples below illustrate copula constructions in Kakua,
using the existential verb *him* ‘exist’ in its different functions to express permanent
states, existence/location, and attribution:

7)  jedẽʔ-wã jẽb  *him* = nit
    parakeet-PL 2PL exist = INTERR
    ‘are you of the parakeet (clan)?’

8)  nin-paʔ = ka  wẽm  wã = *him* = na  tẽw = na
    DEM.PROX-be.like: this = ASS   1SG   1SG = exist-DECL work = DECL
    ‘like this is my work’ (like this I work)

9)  victor-ĩʔ  mi = bũ  fi = *him*-ip = hĩ
    victor-POSS   house = LOC   1PL = exist-PST = REM.PST
    ‘we were at Victor’s house’
Basic clause structure and types of clauses

10) bǐʔ "ʔä = t-him- ip = wit = be
other 3SG.M = EVID-exist = REP.EVID = REC.PST
‘(there) he was another one’

11) Balbina-ǐʔ mĩ namā-tak = bū = ka
Balbina-POSS house path-middle = LOC = ASS
ʔä = him = na
3SG.M = be/exist = DECL.
‘Balbina’s house is in the middle of the trail’

12) dawā-ni = ti hiwi-wā pa? him = na = ka
be.many-ADJVZ = INTS tapir-PL be.like exist = DECL = ASS
‘(they) are like huge tapirs!’

13) bidī hīgaʔ = na Hamu ʔä = him = na = ka
very be.sad = DECL. Hamu 3SG.M = be/exist = DECL = ASS
‘Hamu is very sad!’

The basic structure of predicative and existential copular constructions in Kakua does not differ from that shown for other types of verbal constructions (intransitive, monotransitive, ditransitive), in which the verb is (preferably) in final position, being preceded by the object and the subject/agent arguments: SOV( cop).
Thus, a copular construction is also preferably of the type SOV. The copular verb in Kakua takes all of the verbal morphology (see Chapter 8 for a discussion of verbal morphology). This include interrogative mood (14) and tense and aspect (14)-(17) (see also the examples above in this section), cross-referencing proclitics, morphemes indicating evidentiality, as in (16), and nominalizers, as in (17):

14) wāʔ = ṭīp ma = ħīʔ ʔä = him- nit = be
1SG = father 2SG = COM 3SG.M = be/exist-INTERR = REC.PST
‘was my dad with you?’

15) ʔā = laj-him- mip = tāhāp
3SG.M = make.noise-be/exist-IMM.FUT = PROG
‘he is going to be making noise’

16) kēt jegēʔ wiʔ-kan ʔī = t-him- ip = ta = be
3PL clothes not.exit-NEG 3PL = EVID-be/exist-PST = INF.EVID = REC.PST
‘they were (there) without any clothing, it seems’

17) kāk-wā ʔī = him-at = na
people-PL 3PL = be/exist-NMLZ = DECL
‘village’ (lit: people exist)
12.3 The negative existential verb \textit{wîʔikan}

In addition to the affirmative existential copular verb \textit{hîm}, Kakua has an inherently negative stative verb \textit{wîʔikan} denoting the meanings of ‘not to have or not to exist’. This form can be further analyzed into two morphemes, a verb root \textit{wîʔi-} and the verbal negation suffix \textit{–kan}. However, the root \textit{wîʔi-} is obligatorily bound and cannot occur without the negation suffix \textit{–kan}, and this verb is thus considered to be a single negative existential expression. The negative existential verb, like other Kakua verbs, takes all the verbal morphology available to verbs in general: cross-referencing proclitics (18); TAM affixes (18)-(20), evidentiality prefixes and/or enclitics (as in (18)-(20)), and derivational suffixes to form adjectives (21):

18)  
\begin{align*}
  & hiw = bît \\
  & \ ?î = t\text{-}wîʔikan = na \\
\end{align*}
\begin{align*}
  & \text{jaguar} = \text{also} \\
  & 3\text{SG.M} = \text{EVID-\textit{not.exist}} = \text{DECL}
\end{align*}

\begin{align*}
  & \ ?î = t\text{-}nihi = \text{wit} = hî \\
  & 3\text{SG} = \text{EVID-say} = \text{REP.EVID} = \text{REM.PST}
\end{align*}

‘there is also not going to be the jaguar, they said’

19)  
\begin{align*}
  & nin = bû \\
  & \ ?ît \ wîʔikan = hî \\
\end{align*}
\begin{align*}
  & \text{DEM.PROX} = \text{LOC} \\
  & \text{hole} \ \text{not.exist} = \text{REM.PST}
\end{align*}

‘there was no hole on this side’

20)  
\begin{align*}
  & nun \wîʔikan = tagâ \\
  & \text{nothing} \ \text{not.exist} = \text{INF.EVID}
\end{align*}

‘there seems to never be nothing!’

21)  
\begin{align*}
  & kân \ & kib\text{-}wîʔikan\text{-}ni = ka \\
  & 3\text{SG.M} \ & \text{eye-\textit{not.exist}-ADJVZ} = \text{ASS}
\end{align*}

‘he is blind’(\textit{lit.} ‘there is no eye’)

Additionally, it can form an utterance on its own, and is often sufficient as a negative response to a question (of the English type ‘no’) as exemplified below:

22)  
\begin{align*}
  & ?â = t\text{-}?ên = nît \& \ ?â = t\text{-}bîdi = nît = hî \\
\end{align*}
\begin{align*}
  & 3\text{SG.M} = \text{EVID-see} = \text{INTERR} \\
  & 3\text{SG.M} = \text{EVID-search} = \text{INTERR} = \text{REM.PST}
\end{align*}

‘did he look? did he search?’

A \textit{wîʔikan} ‘no’

Although the affirmative existential verb \textit{hîm} can also be negated by attaching the negation suffix \textit{–kan} to it, Kakua speakers strongly prefer using the negative existential \textit{wîʔikan}, when the predicative or existential clause is negative. Negating
the verb *him* (*him-kan* ‘be/exist-NEG’) with the intended meaning of ‘not exist/not.be’ is qualified by most speakers as odd and is corrected to *wiʔikan*.

### 12.4 Predicative possession constructions

Kakua has two main strategies to express possession. Firstly, the juxtaposition of the possessor and the possessed NPs, with the possessive marker -ʔs suffixed to the possessor NP for alienable possession, and without the possessive marker for inalienable possession (see Chapter 5). Secondly, possession can be expressed by means of a predicative construction (i.e. predicative possession). Predicative possessive constructions involve the stative possessive verb *bibùʔ* ‘have/possess’. The constituent order in predicative possessive constructions is consistent with Kakua’s preferred SOV order. Thus, the possessor, most often animate, precedes the possessed NP (usually inanimate), and the verb is at the end of the construction. Constructions using this verb are illustrated in examples (23)-(26) below:

23) *bad̂daʔ teļu-tfaʔ bidî*
   deceased  quiver-CL:container  be.big

   \[\text{ʔî = t-*bibùʔ* = hip = tagâ} \]
   \[\text{3PL = EVID-*have* = DUB = INF,EVID}\]
   ‘the forefathers had a big quiver (it seems)’

24) *ʔã=manji-tib-ip = wit = hî\]
   \[\text{3SG = curare.poison-hurt-PST = REP,EVID = REM,PST}\]
   \[\text{ʔã = t-*bibùʔ*?-up = wit = hî}\]
   ‘he had his very strong curare poison’

25) *fî it fit = mî\]
   \[\text{1PL 1PL.POSS = house}\]
   \[\text{fî = *bibùʔ*? = na = ka}\]
   \[\text{1PL = *have* = DECL = ASS}\]
   ‘we have our house’

26) *webit hũptʃi ʔã = *bibùʔ*? = na = ka\]
   \[\text{child  cold}\]
   \[\text{3SG.M = *have* = DECL = ASS}\]
   ‘the child has a cold’

As seen in the examples above, the predicative possessive verb ‘have’ *bibùʔ* takes the common verbal morphology (e.g., subject cross-reference proclitics, tense, aspect, mood, evidentiality). The possessed NP of a predicative possessive construction is not case marked, even when DOM criteria apply (see Chapter 6).
12.5 Comparative constructions

The function of comparative constructions in Kakua is to assign the relative position of two referents on a predicative scale. Comparative constructions, according to the terminology used in Stassen (1985), involve the following elements: the standard of comparison (the NP indicating the object that serves as the yardstick of the comparison); the comparee (the object that is being compared); the parameter (the property on which the comparison is based), and the index (referring to the type of comparison). The last two, i.e. the parameter and the index, are referred to as the scale.

Kakua comparative constructions include those in which the scale of comparison expresses standards referred to as being less than, more than, and equal to the compared entity. In these types of constructions, the scale is expressed by verb roots, without additional TAME morphology, affixes or proclitics. In these cases, the verb root by itself indicates the scale of comparison. Examples (27)-(29) illustrate the use of the verb tʃaʔ ‘be.on.top’ not functioning as a predicate, but as a scale for comparison. The order of constituents in comparative constructions is as follows: the comparee precedes the standard, and the position of the scale of comparison (e.g., tʃaʔ ‘be.on.top’) is free.

27) neẁ=bò jad-wili tʃaʔ hap=bò=ka
man = EMPH woman-CL:fem be.on.top be.up = LOC = ASS
‘the man is taller than the woman’

28) nin=heʔ kun=bò tʃaʔ kibîʔ=ni=ka
DEM.PROX = INTS DEM.DIST = LOC be.on.top be.cold = ADJV = ASS
‘here is colder than there’

29) kân tʃaʔ kulùʔ jehèp-ʔin =na him =ni=ka
3SG.M be.on.top flea be.bad-be.ugly = DECL be/exist = ADJV = ASS
‘he is uglier than a flea’

Example (30) involves the use of the verb nînʔ ‘be.below’ as a scale for comparison meaning ‘be less than’. Note that in these examples, as in (27)-(29) above and (30) below, the verb expressing the scale for comparison does not take additional TAM affixes and its function within the clause is not that of a predicate, but of a scale of comparison:
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30) \[ \begin{align*}
\text{kan} = & \text{na} \\
\text{min} = & \text{tū} \\
\text{nīn}^{\prime} = & \text{ḥēʔ} \\
\text{kān} & \\
\text{PROX. DEM} & = \text{DECL} \\
\text{be.equal} & = \text{INTS} \\
\text{be.below-fall-INTS} & \\
\text{3SG.M} & \\
\text{ʔiddʒi} & \quad \text{kan} \\
\text{younger.brother} & \quad \text{nīn}^{\prime} \\
\text{PROX. DEM} & \quad \text{be.below} \\
\text{ʔā} = & \text{t-ḥīn-ip} = \text{wīt} = \text{ḥī} \\
\text{ʔavela-ʔi} & \quad \text{paʔniʔ} \quad \text{nīn}^{\prime} \\
\text{3SG.M} = & \text{EVID-exist-PST} = \text{REP.EVID} = \text{REM.PST} \\
\text{chavela-POS} & \text{be.alike this.F} \\
\text{‘like this short, the younger brother was shorter (than the older ones), just like Chavela’} \\
\end{align*} \]

Semblative comparison, in which the standard and the comparee are conceived to be of equal degree on a given scale, are formed by using different particles encoding meanings such as ‘be alike’, ‘like this’, ‘and so like this’, ‘be equal’, ‘be similar to’. Choosing one particle or another depends primarily on whether or not the speaker can physically signal the relative dimension of the standard of comparison, and on the physical proximity of the speaker to the standard of comparison. For example, if the speaker points to a tree in the distance as the yardstick for comparison of height, then the particle \( \text{paniʔa} \) ‘and so like this’ (or its shortened allomorph \( \text{pan} \)) would be used. This particle is also used whenever the standard of comparison is not visually accessible. If instead the speaker physically touches the yardstick of comparison, or uses gestures to indicate its dimensions, then most often the particle \( \text{mɨn} \) ‘be equal’ is used.

Example (30) above, highlights the use of particles \( \text{mɨn} \) ‘be equal’, and \( \text{paʔniʔ} \) ‘be alike/be like this’. During the utterance of the first line in the example, the speaker was indicating how short the younger brother is with a hand gesture, by placing one hand below with the palm of the hand facing upwards, and the other hand higher up with its palm facing downwards. In this case the speaker uses the particle \( \text{mɨn} \) ‘be equal’. Then, the speaker pointed at Chavela (a young girl listening to the conversation), expressing that ‘the younger brother’ in the tale was about her size; for this comparison the speaker uses the particle \( \text{paʔniʔ} \) ‘be alike like this’.

Additional examples of semblative comparison are given in (31)-(33) below. A further description of Kakua’s particles, including the ones occurring within comparative constructions, can be found in Chapter 3.

31) \[ \begin{align*}
\text{kun} = & \text{bū} \\
\text{mɨn}^{\prime} = & \text{tiʔ} \\
\text{nīn} & \\
\text{DEM.DIST} = & \text{LOC} \\
\text{be.equal} & = \text{INTS} \\
\text{DEM.PROX} & \\
\text{‘that one is just like this here’} \\
\end{align*} \]

32) \[ \begin{align*}
\text{ʔā} = & \text{nth-at} \\
\text{paʔ} = & \text{min} = \text{tiʔ} \\
\text{nīn:} & \quad \text{ōhōhōhō} \\
\text{3SG.M} = & \text{say-NMLZ} \\
\text{like.this} = & \text{be.equal} = \text{INTS} \\
\text{DEM.PROX} & \quad \text{ōhōhōhō} \\
\text{‘He sounded just like this: ōhōhōhōhō...’} \\
\end{align*} \]
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33) Q.  \textit{pan?= hĩ= ta= nit} \quad \textit{kăn}  \\
\textit{be.like.this} = \text{REM.PST} = \text{INF.EVID} = \text{INTERR} \quad \text{3SG.M}  \\
\text{‘was he like this?’}  \\
A.  \textit{hĩ= i= bũ} \quad \textit{pan?= ti?}  \\
yes, \quad \text{3SG.M} = \text{EMPH} = \text{REM.PST} \quad \textit{be.like.this} = \text{INTS}  \\
\text{‘yes, he was just like grandfather’}  \\

The superlative, describing a situation in which the comparee has the highest degree among the standards of comparison, is expressed by using the noun \textit{niʔat} ‘all/everything’, as in (34), or by using an emphasizing construction, as in (35), where the nominalized verb \textit{jũb} ‘be true’ serves to express that the referent of the noun \textit{keh} ‘fish’ is the biggest among the referents of the standard of comparison noun \textit{bita} ‘others’. These examples additionally illustrate that the noun phrase expressing the standard can be case-marked. Maybe this indicates that the standard is regarded as a syntactic object. There is no explanation why it is that sometimes comparees are object marked while other times they are not (the animacy hierarchy governing DOM does not seem to predict object marking in these cases).

34) \textit{newe} \quad \textit{niʔat= di?} \quad \textit{tfə?} \quad \textit{hap= bũ}  \\
man \quad everything = \text{OBJ} \quad \text{be.on.top} \quad \text{be.up} = \text{LOC}  \\
‘the man is the tallest of all’

35) \textit{keh} \quad \textit{bita= di?} \quad \textit{tfə?} \quad \textit{bidī} \quad \textit{jũb-at}  \\
fish \quad others = \text{OBJ} \quad \text{be.on.top} \quad \text{be.big} \quad \textit{be.true} = \text{NMLZ}  \\
‘the biggest fish of all’

12.6 Non-verbal predicates

Non-verbal predicates occur in verbless clauses that are formed by the juxtaposition of two NPs without a verb. The subject argument always occurs clause-initially in this type of clauses. Verbless clauses are used to express equative relations, including identity, class inclusion, and class membership. Examples in (36)-(39) below illustrate verbless clauses:

36) \textit{kăn} \quad \textit{f'ũʔ= wāw-da?}  \\
\text{3SG.M} \quad \text{1PL.POSS} = \text{head-CL:round}  \\
‘he is our chief’
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37) \(\text{kān}^\prime\) \(\text{kāk = bit = hĩ}\)  
\(^{3}\text{SG.F}\) \(\text{person = also = REM.PST}\)  
‘she was also a person’

38) \(\text{wēm}\) \(\text{bāda-wili = ka}\)  
\(^{1}\text{SG}\) \(\text{kakua-CL:fem = ASS}\)  
‘I am a Kakua (woman)’

39) Q. \(\text{pa, dedpa}^? = \text{tigā}\) \(\text{hunhāti}\) \(\text{?ēw-at = nit}\)  
\(\text{dad.VOC}\) \(\text{how = EMPH}\) \(\text{long.ago}\) \(\text{sing-NMLZ = INTERR}\)  
‘dad, how were the songs formerly?’

A. \(\text{hunhāti}\) \(\text{?ēw-at, mēm newê = ka mēm = di}\)  
\(\text{long.ago}\) \(\text{sing-NMLZ, 2SG man = ASS, 2SG = OBJ}\)  
\(\text{wa = jap-ap-bip}\)  
\(\text{1SG = pass-PST-FUT}\)  
‘I am going to pass to you the ancient songs, now that you are a man,’

Note that an alternative analysis of these constructions may seem to be that the copula has been omitted, i.e. as ‘zero copula’ construction. According to the standard definition of copula constructions (Hengeveld 1992, Pustet 2003, and especially Stassen 1994), a ‘zero copula’ type of construction presupposes that there is a syntactic slot that is otherwise filled by another element, or in which a copula occurs optionally under certain grammatical criteria. The examples shown in this subsection, however, are not considered here as copula constructions with a zero copula, because it is not the case that in these constructions a syntactic slot remains empty in a restricted context, while alternating with an overt copula in some other contexts. The examples presented in this section do not have alternatives with an overt copula.

Additionally, the simple juxtaposition of related elements in Kakua is a very common strategy to express many different types of relations (e.g., derivation of nouns Chapter 5, possession Chapter 5, coordination of clauses Chapter 13). It should not be surprising then that expressing these more ‘permanent’ states of being (as opposed to the less permanent states of being illustrated in the examples in section §12.2) also appeal to the juxtaposition of elements as a way to express these more permanent states of being.

12.7 Basic locative constructions

A basic locative construction (or BLC), as defined in Levinson and Wilkins (2006:15), is a type of construction that predominantly “occurs in response to a Where-question”. There are two different options for expressing locative relations in
Kakua. One is by means of the locative clitic =bǔ,¹ the other by means of positional verbs (of which Kakua has an extensive set). This section describes these two types of basic locative construction. Further information on the locative marker =bǔ and its functions is found in Chapter 6 on grammatical relations and case marking. Chapter 8 provides more information on the semantics of positional verbs in the context of the description of Kakua verbs.

The locative marker =bǔ serves to express a variety of locative meanings, among them allative ‘to/into’ and ablative ‘from’. Positional verbs cover inessive ‘in’, and adessive ‘on’ locative meanings. Examples (40)-(45) below illustrate the stative locative, and the allative and ablative locative meanings expressed by the locative clitic =bǔ :²

40) nun =bǔ ʔã = wǎw him-lah = na
DEM,DIST = LOC 3SG.M = head be/exist-lay = DECL
‘his head was there (downwards)’

41) wã = hāh-bēh-bjip = na = ka bǐʔ finça = bǔ
1SG = go.down-go-FUT = DECL = ASS other farm(SP) = LOC
‘I will go down to another farm’

42) kēt wãw-kaʔ = bǔ ʔĩ = beh mib-wãw-kaʔ = bǔ
3PL head-river.head = LOC 3PL = go river-head- river.head = LOC
‘they (from the river’s headwaters) go (back) to the river’s headwaters’

43) Mitú = bǔ t̪̊ it beh-ep = hī
Mitú = LOC 1PL go-PST = REM,PST
‘we went to Mitú’

44) kãn = diʔ wapʧi = na = bǔ = diʔ tũj = diʔ
3SG,F = OBJ manioc.field = DECL = OBJ manioc = OBJ
ʔĩ = tã-ʔib-ip = wêt = hī
3PL = EVID-bring-PST = REP,EVID = REM,PST
‘they brought her manioc from the manioc field, it is said’

45) tʃena = bǔ ḱan = na wât-jũʔ-ŋũʔ-ip
two/both = LOC 3SG = DECL blossom.of.big.flowers-toss-stop-PST
‘(it) blossomed on/from both sides’

¹ Note that =bǔ also serves as an emphasis marker; see §8.4 for a description of this clitic.
² Note the co-occurrence of the locative and the object marker in example (44), suggesting that maybe the morpheme analyzed as object marker in this book might have some other functions (marking adjuncts as well as object arguments, for example). See the discussion on this topic in Chapter 6.
The locative enclitic, as illustrated in the examples above, attaches to the head noun of the locative NP. The locative-marked NP tends to occur in initial position (preceding core arguments). However, it can also be seen in the examples above (e.g., (41) and (44) that an alternative placement of the locative adjunct is possible).

A second set of constructions expressing locative meanings are those involving a positional verb, in which the verb specifies the location/position of the nominal. This verb often appears as part of a serial verb construction (see Chapter 9). Constructions of this type do not require the locative marker = bǔ. Examples are given in (46)-(47) below:

46) tih-daʔ-beʔ?  
turtle.sp-CL:round-AUG

\[ ?a = p\text{}\bar{a}\text{-}g\text{}\bar{e}w-d\bar{a}ð-fhe = na \]
3SG.M = put.vertically-tie-staNd.vertically-leave = DECL
‘the turtle (was) left tied standing vertically on the floor’

47) dâǃ wā = māw-ap, kān gfej-lah = na = ka
all.set! 1SG = kill-PST, 3SG.M be.facing.upwards-be.laying.on = DECL = ASS
‘all set, I have killed (it), he (the caiman) is laying on (the fire) facing upwards’

Table §12.1 below gives some examples of positional verbs. A list of positional verbs can be found in Chapter 8. Note that these verbs express inessive and adessive locative meanings not expressed by the locative clitic case marker = bǔ.

| Table 12.1. List of positional verbs in Kakua |
|-------------------------------|--------------------------|
| **Verb** | **Gloss** |
| īfāʔ | be on top |
| ĕn | be or go inside the forest |
| wād | be or go inside a closed place |
| hūk | be outside |
| nim | be below |
| dit | be inside |
| jāfʔ | be hanging |
| tāʔ | be behind |
| ŝūf | be inclined sideward not touching a surface |
| bīf | be stuck onto a surface |
12.8 Clause types

The following sections provide descriptions of the different types of independent clauses in Kakua. Declarative clauses are described in §12.9, followed by a section describing interrogative polar and content questions (§12.10). Section §12.11 provides a description of affirmative imperative clauses and §12.12 of negative imperatives. These sections show that these types of clauses differ in their possibility of encoding evidential categories.

All of these clause types have dedicated markers, as given in Table 11.2 below. Additional description and exemplification of these markers are also presented in other chapters. Chapter 10 on TAME describes the meanings of these markers in the context of other markers encoding mood, e.g., frustrative, dubitative, and other moods. Chapter 8 gives a basic template of the verb and describes the syntactic position of these markers within the verbal word.

<table>
<thead>
<tr>
<th>Clause type</th>
<th>Morphological marker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Declarative</td>
<td>= na</td>
</tr>
<tr>
<td>Interrogative</td>
<td>= nit</td>
</tr>
<tr>
<td>Imperative</td>
<td>- V</td>
</tr>
<tr>
<td>Negative imperative</td>
<td>- kabuhú</td>
</tr>
</tbody>
</table>

12.9 Declarative clauses

Declarative clauses in Kakua are those expressing statements (in the sense of Palmer 2001:65). Declarative clauses are morphologically marked by the clitic = na. Note, however, that in many cases the declarative marker does not occur. The criteria predicting the omission, or facultative marking, of the declarative clitic, are left for future research.

From a formal perspective declarative clauses do not have special phonological features (like, for example, dedicated intonation, or other phonological traits to be found exclusively in declarative clauses) nor do they have a special constituent order. Declarative clauses can express affirmative or negative statements, as seen in the examples in (48)-(49) below:

48) kān = diʔ ?ibʔ wā = bèw = na = hī
3SG.M = OBJ take.out 1SG = carry = DECL = REM.PST
‘I took him out and carried him’

49) kēt = diʔ wā = ?ibʔ -kan = na = hī
3PL = OBJ 1SG = take.out-NEG = DECL = REM.PST
‘I didn’t take them out’
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50) \(bi = ma = mâ = na\) wîʔikan = ka
   today 2SG = parents = DECL not.exist = ASS

   ‘today your parents aren’t there’

Declarative clauses also occur in different tenses as in (51)-(53):

51) \(?ã = bch = na = be\)
   3SG.M = go = DECL = REC.PST
   ‘he (just) left’

52) wã = ?ên = na = be
    wêm  mêm = di?
    1SG = see = DECL = REC.PST 1SG 2SG = OBJ

   ‘I’ve seen!, I’ve (seen) you’

53) \(f^r i? = mhih-hiw\)
    mêm = di?
    1PL.POSS = house-jaguar 2SG = OBJ

    \(?ã = wâp - bip = na\)
    3SG.M = take.care-FUT = DECL

   ‘our dog will take care of you’

Additional examples of the declarative marker (declarative clauses) are given in Chapter 10 on TAME.

12.10 Interrogative clauses
12.10.0 Interrogative clauses

Kakua has two main types of interrogative clauses: Content (or question-word) interrogative clauses, and polar (yes-no) interrogative clauses. Content questions (§12.10.2 below) are formed by using interrogative pronouns or other interrogative words like interrogative demonstratives and/or adverbials (see Chapter 7 on interrogative pronouns and question words). Polar interrogative clauses (§12.10.1 below), on the other hand, are morphologically marked by the clitic = nit. Interrogative clauses contrast with declarative clauses in that the declarative marker = na does not occur in interrogative clauses. They do not differ from declarative clauses in word order. Also no particular intonational pattern is required to exclusively mark interrogative clauses (although in future work intonation patterns in interrogative clauses should be looked at carefully). Interrogative clauses can be both affirmative and negative. When negative, the verbal predicate must be marked by the negation suffix -kan/-kap ‘NEG’, or the negative existential wîʔikan ‘not.exist’ is used. Compare the following examples:

54) wã = ?ip  ma- = hû?
    1SG = father 2SG = COM

    \(?ã = him = nit = be\)
    3SG.M = be/exist = INTERR = REC.PST

   ‘was my dad with you?’
Interrogative clauses differ further from declarative clauses (§12.9 above) in that interrogative clauses have not been found to occur with the entire range of evidentiality distinctions (I have found them occurring only with the inferred evidential markers). Further research should focus on specifically testing for acceptance of each of the evidential markers in interrogative clauses and explore the reasons why some (at least the inferred category) are allowed to occur whereas other categories are not. Examples (55) above and (58) below illustrate interrogative clauses occurring with the inferred evidential. It is interesting to note that evidential markers can occur in interrogative clauses, even though one might think that evidential marking presupposes assertion.

Additionally, the interrogative marker can also co-occur with the dubitative mood suffix -hí ‘DUB’ in the same clause, as illustrated in (60) below. See Chapter 10 for further descriptions of interaction of the interrogative mood with evidentiality and other mood markers.

Polar interrogative clauses and content interrogative clauses differ in that polar questions must obligatorily be marked with the interrogative mood clitic = nit. While in interrogative clauses formed with question words, the presence of = nit is optional, and it is most often omitted.

12.10.1 Polar interrogative clauses

Polar questions seek a ‘yes’ or ‘no’ answer. This type of clause is obligatorily marked by the interrogative clitic = nit. The interrogative clitic is in complementary

3 Note that the interrogative morpheme is homophonous with the same-subject enclitic = nit ’S.S’ (Chapter 13) and the plural collective = nit ’PL.COL.’ (Chapter 4). Whether there is a historic relation between these forms has yet to be explored in future research.
distribution with the declarative marker = na. The interrogative marker = nit occurs with the same hosts as the declarative marker = na; that is, interrogative = nit can occur with predicates, as well as with nouns (including pronouns, demonstratives), and with adjectives. Examples (59)-(62) below illustrate polar interrogative clauses. Examples (59)-(60) show affirmative polar interrogative clauses. Negative interrogative clauses are illustrated in (61)-(62):

59) Manú wîʔ = diʔ mèm ma = ŋèn = nit = be
   manuel son = OBJ 2SG 2SG = see = INTERR = REC.PST
   ‘did you see Manuel’s son?’

60) jèb ni = t-naʔa-hi = nit
    2PL 2PL = EVID-want-DUB = INTERR
    ‘do you (all) want, perhaps?’

61) ma = beh-hi-kan = nit
    2SG = go-DUB-NEG = INTERR
    ‘aren’t you going?’

62) ma = beʔèn-kan = nit
    2SG = recognize-NEG = INTERR
    ‘don’t you recognize?’

In verbless polar interrogative clauses, the predicate nominal carries the interrogative clitic = nit:

63) jëdëʔ-wà jèb him = nit puniʔ = nit = ti
    parakeet-PL 2PL exist = S.S group = INTERR = INTS
    ‘you Parakeets were there, (were you all the same) group?’

64) kàn pàkuʔ = nit
    3SG,M crab = INTERR
    ‘is he the crab?’

Common greetings in Kakua are similar to polar questions, but the interrogative marker = nit is often omitted in these. These greetings do not elicit information, as they refer to an action for which the speaker has clear direct evidence and thus doesn’t require an answer. Note that, since the declarative marker can be omitted in declarative clauses, the type of clauses presented below can alternatively be analyzed as declarative clauses. The examples below illustrate a morning greeting (65) and arrival greetings (66)-(67):
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65) \( ma = hâ \)
    \( \text{2SG} = \text{get up} \)
    ‘are you up?’

66) \( ma = hîw̄' \)
    \( \text{2SG} = \text{arrive here} \)
    ‘have you arrived?’

67) \( ma = tîj \)
    \( \text{2SG} = \text{be good} \)
    ‘how are you?’ (lit. you good)

Departure greetings do require the interrogative clitic. Example (68) illustrates the typical greeting directed towards those who are leaving. Again, it does not elicit information, as it is used even when the process of leaving is taking place in the presence of the speaker.

68) \( ma = beh = nit \)
    \( \text{2SG} = \text{be good} = \text{INTERR} \)
    ‘are you leaving?’

Another exception to obligatory marking with the interrogative clitic \( = \text{nit} \) in polar questions occurs in traditional Kakua storytelling. This practice requires one or more “responders” whose role in the event is to respond to the person telling the story. The response often consists of repeating the last sentence of the main narrator. This “response” can be understood as a question, but the interrogative marker \( = \text{nīt} \) is not required. Example (69) below comes from a story-telling event of a folktale. Speaker A is telling the story, and speaker B is the designated “responder”. His or her duty is to ask questions to the speaker while the story is being told. Speaker B asks the questions without using the interrogative marker \( = \text{nīt} \). When inquired about this, speakers reported that everybody assumes that the denominated “responder” is asking questions, and therefore the use of the interrogative marker \( = \text{nīt} \) was considered redundant (although possible):

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I assume this because it is the only accepted translation that speakers give, and also because the main narrator gives an affirmative answer. Also, when having conversations in Spanish with me, the Kakua speakers will use the same formula, though in Spanish they will use the interrogative intonation to indicate that the repetition of the sentence said by one of the speakers represents a ‘rhetorical question’, or just a figure of speech.
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69) A. wāhtʃūʔ kāk =diʔ bēd-at iʔb =na
   whatʃuʔ person =OBJ finish-NMLZ to.poison =DECL
   ‘the Watchu is poisoning and finishing up people’

B. watʃuʔ
   whatʃuʔ
   ‘the Watchu?’

A. hîhî, watʃuʔ =ti=ka
   yes, whatʃuʔ =INTS =ASS
   ‘yes, the Watchu’

B. ʔĩ=guerero
   3PL =warrior(SP)
   ‘their warrior (was he)?’

A. ʔĩ=guerero =na =ka
   3PL =warrior(SP) =DECL =ASS
   ‘he is their warrior’

12.10.2 Content (question-word) questions

Question-word interrogative clauses elicit specific information (as opposed to ‘yes’ or ‘no’ answers sought in polar questions). Content questions are formed by using the relevant question word (the question word can occasionally be omitted, see below). A list of interrogative words (discussed in Chapter 7) is given in Table 12.3. These interrogative words are derived from the interrogative stem de- (see Chapter 7 for an extensive description of interrogative pronouns and other question words).

Table 12.3: Interrogative pronouns and interrogative words in Kakua:

<table>
<thead>
<tr>
<th>Form</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>dēʔe</td>
<td>who/where</td>
</tr>
<tr>
<td>deʔpaʔ</td>
<td>how</td>
</tr>
<tr>
<td>deʔpu</td>
<td>how much</td>
</tr>
<tr>
<td>dede</td>
<td>what</td>
</tr>
<tr>
<td>dedbō</td>
<td>when</td>
</tr>
<tr>
<td>depmun</td>
<td>how many</td>
</tr>
<tr>
<td>depaʔniʔnsa</td>
<td>why</td>
</tr>
</tbody>
</table>

In content interrogatives the question word (whether an interrogative pronoun, determiner or adverbial interrogative word) is placed at the beginning of the clause. Note that, as illustrated in example (75), content questions can optionally take an interrogative marker:
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70) \( \text{dedē} = \text{ti} \)  
\( \text{pan} = \text{ʔā} = \text{t-nihi} \)  
\( \text{WHAT} = \text{INTS} \)  
be.like  
\( \text{3SG.M} = \text{EVID-say} \)  
‘What was (making this noise) saying this?’

71) \( \text{deʔpa} \)  
\( \text{pi} = \text{ʔi} = \text{p-i-nihi} \)  
\( \text{HOW} \)  
liana  
\( \text{3PL} = \text{HAB-say} \)  
‘how do they call this liana?’

72) \( \text{deʔe} = \text{tigā} \)  
\( \text{ʔèn} \)  
\( \text{kān} = \text{bā} \)  
\( \text{WHO} = \text{INTS} \)  
see  
\( \text{3SG.F} = \text{EMPH} \)  
‘who saw her?’

73) \( \text{dedē} = \text{di} = \text{ti} \)  
\( \text{mēm} \)  
\( \text{hēf} \)  
\( \text{WHAT} = \text{OBJ} = \text{INTS} \)  
\( \text{2SG} \)  
\( \text{know} \)  
‘what do you know?’

74) A. \( \text{deʔe} = \text{di} = \text{ti} = \text{be} \)  
\( \text{ma} = \text{ʔèn} \)  
\( \text{WHO} = \text{OBJ} = \text{INTS} = \text{REC.PST} \)  
\( \text{2SG} \)  
\( \text{see} \)  
‘whom did you see?’

B. \( \text{hēf-kun} = \text{ka}, \)  
\( \text{wiʔkan} = \text{ka} \)  
\( \text{know-NEG} = \text{ASS}, \)  
\( \text{not.exist} = \text{ASS} \)  
‘I didn’t see anything’ (lit. ‘I don’t know’)

75) \( \text{dedē} = \text{tigā} \)  
\( \text{ʔè} = \text{ʧāhā} = \text{nit} \)  
\( \text{WHAT} = \text{EMPH} \)  
\( \text{3PL} = \text{do} = \text{INTERR} \)  
‘what are they doing?’

Note one question word \( \text{deʔe} \) has two meanings, ‘who’ and ‘where’ (examples (76)-(78)). Its interpretation is based on inference driven by context. The interpretation of the question word \( \text{deʔe} \) ‘where/who’ as ‘where’ in (82) below, for example, is inferred by speakers based on context.

76) \( \text{deʔe} = \text{ti} = \text{hi} \)  
\( \text{ma} = \text{him} = \text{na} \)  
\( \text{WHERE} = \text{INTS} = \text{REM.PST} \)  
\( \text{2SG} \)  
\( \text{be/exist} = \text{DECL} \)  
‘where were you’

77) \( \text{deʔe} = \text{jāb} = \text{be} \)  
\( \text{ni} = \text{hijbi} = \text{na} \)  
\( \text{WHERE} = \text{INTS} = \text{REC.PST} \)  
\( \text{2PL} \)  
\( \text{arrive.there} = \text{DECL} \)  
‘where did you all arrive’

78) \( \text{deʔe} \)  
\( \text{wēʔbe} \)  
\( \text{ni} = \text{him} = \text{na} \)  
\( \text{WHO} \)  
\( \text{become} = \text{REC.PST} \)  
\( \text{2PL} \)  
\( \text{be/exist} = \text{DECL} \)  
‘whose sons were you’
Question words can also occur on their own, without any additional constituents, forming independent interrogative utterances. Question words standing on their own usually occur with additional morphology (e.g., intensifiers or emphasis markers), and cases like the one illustrated in (81) will most commonly occurred accompanied by an intensifier or emphasis marker (e.g., \( \text{dēʔe}=\text{tī} \) ‘who = INTS ‘who’):

79) \( \text{dēdbhū}=\text{tī} \)  
   \( \text{WHEN} = \text{INTS} \)  
   ‘when really?’

80) \( \text{dēʔe}=\text{di} \)  
   \( \text{WHO} = \text{OBJ} \)  
   ‘to whom?’

81) \( \text{dēʔe} \)  
   \( \text{WHO} \)  
   ‘who?’

The following examples provide further illustration of the use of question words:

82) \( \text{dēdbhū?}=\text{be} \quad \text{pi}=\text{kāk-him}=\text{na}, \)  
   \( \text{HOW} = \text{REC.PST} \quad \text{2PL} = \text{person-be/exist} = \text{DECL}, \)

   \( \text{dēʔe}=\text{jūb}=\text{be} \quad \text{pi}=\text{him}=\text{na}, \)  
   \( \text{WHERE} = \text{EMPH} = \text{REC.PST} \quad \text{2PL} = \text{be/exist} = \text{DECL}, \)

   \( \text{dēʔe}=\text{jūb}=\text{be} \quad \text{pi}=\text{kāk-him}=\text{na} \)  
   \( \text{WHERE} = \text{EMPHZ} = \text{REC.PST} \quad \text{2PL} = \text{person-be/exist} = \text{DECL} \)

   ‘how were you all people born, where were you all, where were you all born?’

Question words can also be omitted in constructing content questions, if an utterance can be interpreted as a question from the context, as illustrated in the following example:

83) Q: \( \text{pāʔ}=\text{ka} \)  
   \( \text{dad} = \text{ASS} \)  
   ‘(where is) dad?’

A: \( \text{tāʔ} \quad \text{ʔā}=\text{tēw}=\text{na} \)  
   \( \text{base.blow.gun} \quad \text{3SG.M} = \text{work} = \text{DECL} \)

   ‘he is making blowgun mouthpieces’
Content questions are typically answered with a (declarative) clause, or with a single word that provides the particular information solicited.

Polar (yes-no) questions can be responded to positively in two ways: with the affirmative particle \textit{hīhī} ‘yes, aha’ (84)-(85) or by repeating in a declarative form the verb phrase that appeared in the interrogative (86)-(87). Subjects are frequently dropped, as in (84) and (86).

\begin{enumerate}
\item Q. \textit{tīj = nit} \\
\quad be.	extit{good} = \textsc{interr} \\
\quad ‘are you fine?’ \\
\quad \textbf{A. hīhī} \\
\quad ‘yes’
\item Q. \textit{ni = duh = nit = be} \\
\quad 2\textit{pl} = \textit{fart} = \textsc{interr} = \textsc{rec.pst} \\
\quad ‘did all of you fart?’ \\
\quad \textbf{A. hīhī, jaǃ} \\
\quad ‘yes, aha!’
\item Q. \textit{beh = nit} \\
\quad \textit{go} = \textsc{interr} \\
\quad ‘are you going?’ \\
\quad \textbf{A. beh = na = ka} \\
\quad \textit{go} = \textsc{decl} = \textsc{ass} \\
\quad ‘I am going’
\item Q. \textit{ma = hīw’} \\
\quad 2\textit{sg} = \textit{arrive} \\
\quad ‘have you arrived?’ \\
\quad \textbf{A. hīw’ = na} \\
\quad \textit{arrive} = \textsc{decl} \\
\quad ‘I have arrived’
\end{enumerate}

Kakua does not have a dedicated ‘no’ particle. The negative existential \textit{wīʔikan} serves as an expression of clausal negation. Alternatively, negation can also be expressed by the verbal suffix \textit{-kan/-kap ‘NEG’} (for verbal negation).

Either of these two can be used when responding negatively to a question. A negative response to a polar question can be done by repeating the predicate of the interrogative clause and adding the negation suffix \textit{-kan/-kap} (88), or with the clausal
negative expression \textit{wîʔikan} (89). A negative response to a content question can include the expression of negation \textit{wîʔikan} (89):

88) Q: \textit{beh=ni \textbackslash t}  
\hspace{1cm} \text{go=INTERR}  
\hspace{1cm} 'are (you) going?'

A: \textit{beh-kan=ka}  
\hspace{1cm} \text{go-NEG=ASS}  
\hspace{1cm} '(I am) not going' (lit. not going)

89) Q: \textit{hiw dedê nun wîʔikan}  
\hspace{1cm} \text{jaguar WHAT be.low no.exist}  
\hspace{1cm} 'wasn’t a jaguar there?'

A: \textit{hiw=bit wîʔikan=ka}  
\hspace{1cm} \text{jaguar=ALSO not.exist=ASS}  
\hspace{1cm} 'none, it wasn’t even a jaguar'

The affirmative \textit{b̩h} ‘yes’ particle is not sufficient to respond to content interrogative clauses. Content interrogative clauses demand a full declarative clause as a response, or just an NP.

12.11 Imperative clauses

Imperative clauses in Kakua are formed by reduplication of the last vowel of the verb root of the predicate of the imperative clause. The reduplicated vowel receives an obligatory high tone. The imperative suffix is then by default represented as \textit{V}, where the quality of the vowel is the same as that of the last vowel of the verb root. This is illustrated in examples (90)-(105):

90) \textit{ni=tîj-huj-û}  
\hspace{1cm} \text{2PL=be.good-listen-IMP}  
\hspace{1cm} 'listen carefully!'

91) \textit{hemî-ê}  
\hspace{1cm} \text{eat-IMP}  
\hspace{1cm} 'eat!'
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92) \[ wěm=diʔ \ nāw^{\text{2SG}}\text{-} = \text{buhú} \]
1SG = OBJ \text{tell-IMP} = \text{DIR}
\emph{‘tell me’}^5

Like all Kakua clauses, imperative clauses in Kakua are typically verb-final. Kakua often omits the overt expression of subject NP arguments (although their overt expression is considered acceptable by speakers, they judge them to be redundant), for they are usually referred to by means of cross-referencing proclitics on the verb predicate. Imperative clauses in Kakua tend to omit the subject argument of the clause more often than other clauses (a cross-linguistic common characteristic of imperative clauses; c.f., Sadock and Zwicky 1985:171; Aikhenvald 2010:92-97, and Chapter 2 of the same book). The omission of the subject argument of the clause occurs more frequently with 2SG forms than with 2PL forms; however, this omission can be said to be facultative, since instances of the 2PL where the subject argument is omitted can also occur when context is sufficient to allow for it. The verb root plus the imperative marker \(-\text{Ṽ́}\), without need of further affixes or clitics, can function as an imperative clause by itself (also a cross-linguistically common feature of imperative clauses Sadock and Zwicky 1985:171). If additional TAME distinctions occur, they form a separate clause. Imperative clauses without an overt proclitic are interpreted by default as having a second person singular subject (93)-(94). Examples (95) and (96) illustrate imperatives with overt 2PL and 2SG proclitic pronouns respectively:

93) \[ ɲ \text{i} = \text{nêʔ} \text{-} ɨ̃́ \text{t} \text{ɨ̀j-wẽp} \text{-} \text{ni} \]
2PL = press-IMP be.good-be.strong-ADJVZ
\emph{‘press strongly!’}

94) \[ ɲaw-\text{á} \]
run-IMP
\emph{‘run!’}

95) \[ ɲi = nêʔ \text{-} ɨ̃́ \text{t} \text{ɨ̀j-wẽp} \text{-} \text{ni} \]
2PL = press-IMP be.good-be.strong-ADJVZ
\emph{‘press strongly!’}

96) \[ ma = tiw-\text{f} \]
2SG = shot.with.blowgun = IMP
\emph{‘shoot!’}

---

^5 This example can also be analyzed as \[ wěm=diʔ \ nāw^{\text{2SG}}\text{-} = \text{buhú} \], where ‘IMP2’, is an imperative concerning an action for the benefit of someone else. See the description of this construction at the end of this section.
Imperatives can also be used to give commands to other than a 2nd person (singular or plural) participants. This is done by adding the appropriate proclitic pronoun in the imperative construction:

97) \( \text{mi} = \text{tëñ-ð} \)
\( 3\text{SG.F} = \text{see} = \text{IMP} \)
‘may she see!’

98) \( \text{mi} = \text{tëw-ð} \)
\( 3\text{SG.F} = \text{work} = \text{IMP} \)
‘may she work!’

Constituent order in imperative clauses is somewhat different from that in declarative clauses. Imperative clauses do have a verb final order. But if the subject argument is fully expressed by an NP, then the subject argument most often immediately precedes the verb. It then follows the object rather than preceding it as in other clauses, with an OSV order as the result. The fronting of the object argument in an imperative clause is not an uncommon cross-linguistic feature of imperatives (c.f., Aikhenvald 2010:92-97). This ordering of imperative clauses in Kakua is illustrated in examples (99)-(101) below:

99) \( \text{kan} = \text{di?} \quad \text{mëm} \quad \text{ma} = \text{të́h-ð} \)
\( 3\text{SG} = \text{OBJ} \quad 2\text{SG} \quad 2\text{SG} = \text{leave-IMP} \)
‘leave it!’

100) \( \text{bab-} \text{ni} = \text{di?} \quad \text{mëm} \quad \text{ma} = \text{dúk-ñ} \)
\( \text{be.white-ADJVZ} = \text{OBJ} \quad 2\text{SG} \quad 2\text{SG} = \text{sift-IMP} \)
‘sift the manioc drink!’

101) \( \text{wà} = \text{peb}’ \quad \text{mëm} \quad \text{ma} = \text{ɲëʔ-hi}’\text{ñ-ñ} \)
\( 1\text{SG} = \text{be.near} \quad 2\text{SG} \quad 2\text{SG} = \text{stand-come-IMP} \)
‘you come stand by me!’

The only evidentiality marker that can occur in combination with imperative clauses in Kakua is the reported evidential \( = \text{wit} \). possibly together with the prefix \( \text{t-} \) ‘EVID’ (prefix of second hand, nonsensorial evidentiality. See Chapter 10 on evidentiality) to express that the order has been given by someone other than the speaker. The use of the reported evidential marker usually serves also to attenuate the force of the command, making it a more polite imperative. This is often used when directing orders to elders (102)-(103). Note that the additional evidentiality specification forms a separate clause, so cannot be directly combined with the imperative verb:
102) \( ma = (tɨd-f, \quad \tilde{y} = t-nih-i = wɨt = hɨ, \)
\( 2SG = \text{sit.down-IMP} \quad 3PL = \text{EVID-say-REP} = \text{REP.EVID} = \text{REC.PST} \)
'sit down! they said'

103) \( ma = \tilde{b}-f \quad \text{hit-at} \quad pɨnaʔ \quad nih = wɨt = hɨ \)
\( 2SG = \text{take.out-IMP} \quad \text{grate-NMLZ} \quad \text{POT} \quad \text{say} = \text{REP.EVID} = \text{REM.PST} \)
'take (the manioc) out for grating, it is said'

In fact, imperative clauses in Kakua lack all TAME distinctions in the clause itself, and all of these distinctions form a separate clause. Cross-linguistically speaking, this is not an uncommon characteristic of imperative clauses (Sadock and Zwicky 1985).

An additional construction expressing imperative solicits the addressee to perform an action for the benefit of somebody else. The form of this imperative is -\( \tilde{b}uh \)ü and it is glossed here as 'IMP2'. In constructions using this morpheme, the subject is always a second person, and its overt expression may be omitted. See examples (104)-(105) below for an illustration of this special imperative 'IMP2'. This form can only code a 'beneficial' imperative, and no other benefactive or dative like meanings can be drawn from it.

104) \( \tilde{b} = na = ka = tɨi? \quad nih-\tilde{b}uh \tilde{b} \)
\( \text{take} = \text{DECL} = \text{ASS} = \text{D.S} \quad \text{say-IMP2} \)
'(she) is recording, (you) tell her!

105) \( kân = di? \quad \tilde{b} = \tilde{b}uh \tilde{b} \)
\( 3SGM = \text{OBJ} \quad \text{take.out-IMP2} \)
'take (it) out for him'

Synchronically, -\( \tilde{b}uh \)ü is considered here to be one single morpheme. However, because of the phonological (syllabic structure, vowel harmony) structure of Kakua words, it is likely that that -\( \tilde{b}uh \)ü is historically at least a complex form. The etymology of this imperative is not transparent.\(^6\)

\(^6\) It might be a lexicalized combination of a morpheme -\( \tilde{b} \) and the directional clitic =buh ‘DIR’. The first element could be a phonologically reduced form of the negative suffix -kan, or it might correspond to a morpheme that is no longer used in synchronic Kakua. Note that the negative suffix doesn’t support a semantic motivation for this ‘beneficial’ imperative. Perhaps, the source of the proposed first element -\( \tilde{b} \), expressed similar semantics of performing an action on behalf of a third party. Nonetheless, there is no evidence neither in Kakua nor in its sister language Nikak that allows me to strongly claim this hypothesis. The second element of this form would be the directional clitic =buh ‘DIR’, displaying the addition of a reduplicated vowel and high tone, i.e. the regular way to form imperatives -\( \tilde{V} \). I propose the directional clitic as the most likely source of this element in this imperative marker because of the semantics of this clitic, which comes from a verb root meaning ‘to perform an action from a distance’ (see note at the end of Chapter 8 regarding the fuzzy verbal-directional identity
12.12 Negative imperative

Negative imperative clauses require the negative imperative suffix -\text{\textasciitilde}buh\text{\textasciitilde}. This is also clearly a complex morpheme, historically derived from at least two morphemes. The first part of this morpheme can be identified as the negative suffix marker -\text{kan}/-\text{kap}. The second part, however, is less clear, and can have at least two interpretations. Firstly, it may relate to the directional clitic =\text{buh}'\text{DIR}', or to the emphasis function of the clitic =\text{b\textasciitilde}}'EMPH' (see Chapter 8), plus a reduplication of its vowel. As for now, I have no strong evidence for either of these hypotheses, but what is clear is that (as with the second imperative described in §12.11 above), given Kakua’s phonological and morphological rules, this particular negative imperative morpheme can be considered historically as a complex form.

The negative imperative morpheme must immediately follow the verb root (to which no affirmative imperative can be attached): (PN)=Verb-\text{\textasciitilde}buh\text{\textasciitilde}:

\text{(i)} \quad ma=ʔɨm-\text{\textasciitilde}buh\text{\textasciitilde}
\text{2SG}=\text{be.afraid}-\text{NEG.IMPER}
'don’t be afraid!'

of this morpheme). Thus, performing on behalf, or for the benefit of somebody else can be equated to performing an action from a distance. Whenever the clause refers to this specific semantics of performing an action for the benefit of somebody else, the imperative is expressed with this obscure morpheme -\text{\textasciitilde}buh\text{\textasciitilde}, thus it is considered here as one single complex morpheme. In constructions using this morpheme, the subject argument of the clause is always in the second person, and it may be omitted. See examples (i)-(ii) below for an illustration of this special imperative ‘\text{IMP2}’:

\text{(i)} \quad ʔɨb\text{\textasciitilde}=na=ka=t\text{\textasciitilde}ʃãʔ
\text{take.out}=\text{DECL} =\text{ASS} =\text{D.S}
\text{say-\text{IMP2}}
'(s)he is recording, tell her!'

\text{(ii)} \quad k\text{\textasciitilde}n=diʔ
\text{3SGM}=\text{OBJ}
\text{t\textasciitilde}k\text{\textasciitilde}buh\text{\textasciitilde}
'take (it) out for him'

Since it seems to have a beneficial encoding (perform for the benefit of someone else), the following considerations might be relevant for a future study of this imperative: i) Kakua does not have a dedicated marker for benefactive roles (see discussion in Chapter 6), ii) many Vaupés languages also do not have dedicated markers for benefactive roles; iii) Kakua does not have a dative case marker (another possible source for the development of a benefactive encoding of a form). If the source were a dative case marker, however, it would be necessary to explain why and how a case marker becomes a verbal morpheme; iv) many Vaupés languages have been described to lack a dative marker; v) Nikak, Kakua’s sister language, has been described as making five case distinctions, among which a dative; vi) Kakua, as many of its neighboring groups in the Vaupés, makes three morphological distinctions, for case: Object arguments, Locatives, and Comitative and Instrumental; vii) Nikak’s dative marker is -\text{\textasciitilde} (see Mahecha 2009); viii) there is a regular sound correspondence of Nikak /\text{e}/ to Kakua /a/. This may be relevant for the complex benefactive imperative form in Kakua -\text{\textasciitilde}buh\text{\textasciitilde}; ix) because of Kakua’s phonological (syllabic structure, vowel harmony) and morphological rules, we know that -\text{\textasciitilde}buh\text{\textasciitilde} imperative is a complex form.
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107) ʔĩ=pĩ... ma=beh-kabuhú ʔĩ=pĩ-nih=na=wit=hĩ
3PL=HAB 2SG=go=NEG.IMP 3PL=HAB-say=DECL=REP.EVID=REM.PST
‘they always… they always said “don’t go!” (it is said)’

108) ma=hīgaʔ-kabuhú
2SG=be.sad-NEG.IMP
‘don’t be sad!’

109) wēm=diʔ ma=tʃɨ-j-kabuhú, ʔinwĩ
1SG=OBJ 2SG=step.on-NEG.IMP. relative
‘don’t step on meǃ, relative’

Negative imperative constructions, as with affirmative imperative clauses, do not contain TAME marking. If the reportative evidential is used, it does not attach to the predicate together with the negative imperative, but it rather occurs forms another clause (as in (107) above), and (110) below. The use of a reportative construction seems to serve a function of making the comma nd more ‘soft’, or more polite:

110) kēt=diʔ Katherine ma=tū-kabuhú
3PL=OBJ Katherine 2SG=push-NEG.IMPER
ʔĩ=nih=na=wit=be
3PL=say=DECL=REP.EVID=REC.PST
‘Katherine, don’t push them! they have said’

As seen in (110) above, constituent order in negative imperatives clauses is typically verb final; and whenever both the subject and object are overtly expressed through a lexical noun or free pronoun, the order of subject and object is inverted from the typical SOV basic order in Kakua, resulting in OSV (although speakers accept other orders). The change of the preferred order into an OSV order is typical for imperative clauses cross-linguistically (c.f., Aikhenvald 2010:92-97).

12.13 Responding to imperatives

Responses to imperative clauses are constructed like responses to questions (described in §12.10 above under interrogative polar and content questions). Commands are usually responded to with the particle (interjection) hǐhǐ ‘yes’, or another particle with affirmative meaning (see Chapter 3 for a list of particles and interjections in Kakua), such as da! ‘there!’, among others. Additionally (as with questions), imperatives can be responded to by repeating the predicate of the imperative clause in a declarative construction. Example in (111) below illustrates a response to a command:

\[ \text{Katherine, don’t push them! they have said} \]
Basic clause structure and types of clauses

111) A. wêʔe-ê waj-kan = héʔ
   chat-IMP be.slow-NEG = INTS
   ‘quickly now, tell (it)’

B. hêni, hanʔheʔ, jû = diʔ = ka wêʔ = min = na
   yes, alright, Armadillo = OBJ = ASS chat = IMM.FUT = DECL
   new’hêʔ?
   right.now
   ‘yes, alright, I will tell (it to) Armadillo right now’

Negative responses to a command are also constructed like negative responses to questions. A negative response may involve repeating the predicate in the imperative clause, adding the negation marker -kan as illustrated in (112):

112) A: beh-ê
    go-IMP
    ‘go!’

B. wâ = beh-kan = tfâhâp
   1SG = go-NEG = PROG
   ‘I am not going’

12.14 Summary

This chapter describes the basic clause structure in Kakua. A minimal clause contains at least one predicate. Given that cross-referencing proclitics can stand for the subject NP of the clause, the overt expression of the subject NP is not obligatory in order to form a clause. In basic clauses involving predicates with semantically transitive verb roots, the object argument NP generally precedes the predicate of the clause. Most other clause types also prefer the basic SOV order of constituents. An exception to this is the imperative clause, which prefers an OSV order.

The basic clause structures of copula constructions (affirmative and negative copular clauses), predicative possessive clauses, comparatives, verbless clauses, and basic locative clauses were described in sections §12.2 to §12.7 respectively. It was also shown that nonverbal clauses represent a common strategy in Kakua to express equative copular meanings.

This chapter ended with a description of the structure and coding of declarative, interrogative and imperative (both affirmative and negative) clauses in §12.10 and §12.11. Kakua declarative clauses represent the default type of clause.

Additionally, there is a morpheme which expresses an imperative mood for when the request is to perform an action for the benefit of somebody else. The origin of this morpheme is obscure, and a diachronic explanation is still to be found in order to have a more accurate approach to analyze the form. Future research,
including perhaps a comparative analysis between Kakua, Nikak and other neighboring languages, will undoubtedly presents us with fascinating hypotheses on the origin of this form.
13.0 Introduction
This chapter describes the different mechanisms for combining clauses in Kakua. This complements chapter 9 where verb serialization was introduced as one strategy that Kakua has to express a series of events when these events have an integrated relationship among themselves. In addition to serialization, Kakua has two other strategies to relate events to one another: coordination and subordination.

i) Coordination: the symmetrical relation of events, or events that are conceptually less integrated.

ii) Subordination: an asymmetrical relation of events (clauses) in which one depends, grammatically and semantically, on a higher clause, i.e. subordination. Subordination is a strategy that falls in between the expression of events that are considered as more conceptually integrated (verb serialization) and events that are less conceptually integrated (coordination).

Section §13.1 provides a description of the two main strategies of coordination in Kakua: i) simple juxtaposition of the coordinated clauses; or ii) use of a coordinator particle.¹ The specific properties of each subtype of subordinate clauses (complement, relative, and adverbial) are described in §13.2-§13.5.

13.1 Coordination

13.1.0 Introduction
The structure of a coordinated construction is in itself a symmetrical structure (c.f., Cristofaro 2003). This means that, as opposed to subordination (§13.2-§13.7), in a coordinated construction the coordinated elements do not depend either grammatically or semantically on each other; i.e., the elements of a coordinated construction may function as independent clauses on their own (c.f. van Gijn et al 2011:1-24; Cristofaro 2003). Kakua uses mainly two strategies to coordinate independent clauses: i) juxtaposition, ii) the use of morphemes which serve as indicators (coordinators) of the relationship between the coordinated clauses. As opposed to verb serialization, coordination in Kakua serves to express different

¹ The use of the term ‘coordinator particle’ instead of simply ‘conjunction’ is preferred here because the term ‘conjunction’ is used here for one of the types of coordination (§13.1), contrasting with, e.g., ‘disjunction’, or ‘adversative’ types of coordination.
events that are not necessarily conceptually integrated (see also Chapter 9). The following subsections describe the different types of coordination. Conjunction of clauses is described in §13.1.1, disjunction constructions are described in §13.1.2; adversative coordination is described in §13.1.3; and a description of causal coordination is given in §13.1.4.

13.1.1 Conjunction coordination

Kakua lacks a morphological coordinator for the expression of conjoined clauses. Conjunction is expressed by the simple juxtaposition of clauses (evident by the pauses separating the juxtaposed clauses). This lack of an overt linking element in coordinated constructions (or “asyndetic coordination” in terms of Haspelmath 2007:7) occurs widely in the world’s languages, especially with the meaning of conjunction.

Conjoined independent clauses can express the temporal succession of independent events, as exemplified in (1) below. The difference between this type of conjoined clauses and the temporal succession of events expressed by verb serialization is that in the former the coordinated events are conceptually regarded as less integrated. A serial verb construction, on the other hand, is used when the succession of events is regarded to be conceptually more integrated, i.e., conceived as one single event formed of two or more sequences of events. A description of serial verb constructions and their properties is found in Chapter 9. An example of an integrated event is given in (2), to be compared to that in (1):

1) ʔã =tej ja =hîʔ  kâdaʔ =kág  kêt =diʔ
   3SG.POSS = hand = COM stop.doing = put.on.top  3PL = OBJ

   ʔã =t-hi̱ʔ
   3SG.M = EVID = show
   ‘He placed it (the evil spirit) on his hand and showed (it to) them’

2) tfêjili-daʔ -beʔ =diʔ  ʔã =t-biʔ -kibʔ
   night_ant.sp-CL:round-AUG = OBJ  3SG.M = EVID-break-pinch

   ‘He broke and pinched the night ant’

As expected, the subject argument in the two conjoined clauses does not necessarily need to be the same. See example (3) below:
3) \( mi = t\text{-}numā = na = wit = hĩ \)
   \( 3\text{SG.F = EVID\text{-}give.to.suck = DECL = REP\text{-}EVID = REM\text{-}PST} \)

\( ?ã = t\text{-}num\text{-}up = wit = hĩ \)
   \( 3\text{SG.M = EVID\text{-}suck-PST = REP\text{-}EVID = REM\text{-}PST} \)

\( wîd\text{-}wâda = na \quad wîd = na = ka \)
   \( \text{swallow\text{-}go.in = DECL\text{-}swallow = DECL = ASS} \)

\( ?ĩ = t\text{-}nih = na = hĩ \)
   \( 3\text{PL = EVID\text{-}say = DECL = REM\text{-}PST} \)
   ‘She breast fed him \textbf{and} he sucked \textbf{and} swallowed it down, they said’.

An additional example of a conjunction of subsequent events, expressed through the juxtaposition of elements perceived as less integrated events, is given in (4) below:

4) \( kět \ wapi = di? \quad ?ĩ = t\text{-}têw\text{-}ep \quad tew\text{-}pê = hũ = di? \)
   \( 3\text{PL = manioc.field = OBJ} \quad 3\text{pl = work-PST = work\text{-}finish corn = OBJ} \)

\( ?tn = nit \quad ?ĩ = t\text{-}hêm\text{-}ep = ta = be \)
   \( \text{grind = S.S} \quad 3\text{pl = EVID\text{-}eat\text{-}PST = EVID = REC\text{-}PST} \)
   ‘They worked the manioc field \textbf{and} then ground corn \textbf{and} ate’

In a coordinated conjoined construction, as opposed to verb serialization, the juxtaposed elements in the construction each can take morphology separately. Recall that in serializing constructions, TAME and cross-reference is marked only once and these have scope over all of the elements in the serialized construction (Chapter 9).

However, and not surprisingly for Kakua, this seems to be more of a tendency than a rule. Independent morphological marking on each of the coordinated elements is possible but not obligatory, and the total omission of any marking at all (either cross-referencing proclitics or TAME morphology) is also found in some examples, which I regard as conjunction constructions rather than serialization. An example is given below:

5) \( pan\text{-}ni? \quad kān \quad hũj \quad kâwdiʔ\text{-}waj \quad hũj \quad kâwdiʔ\text{-}waj \quad hũj \)
   \( \text{and.so 3SG.M cry heart-pull cry heart-pull cry} \)
   ‘and so, he cried and exhaled breath, and cried, and exhaled breath, and cried’

The motivation for considering this type of construction to involve coordination rather than serialization is based entirely on the phonological behavior of the coordinated elements. While in a serializing construction the elements form one phonological word, in a coordinated construction the elements form independent phonological words. The following intensity figure (created with the Praat software,
Boersma & Weenink 2016, to represent the amount of acoustic energy in the sound signal) of example (5) above shows the coordinated clauses. Each of the down peaks (highlighted with a dotted line) in the figure represent a lower level of intensity, which I interpret as an intensity boundary between the conjoined elements. It is important to stress, however, that intensity should not be regarded as the only evidence for clausehood, not only because it might represent only an impressionistic description of the phenomena, but also because word level prosody in Kakua still awaits further research.

Figure 13.1 Intensity drawing for coordinated construction

It might be the case also that cross-referencing proclitics or TAME morphology occur in only one of the coordinated elements, or in none (as illustrated in 6) when these values have been previously established in the discourse. The past tense reference of both independent coordinated predicates, \textit{waj'-əb-ʃē} ‘pull up and leave’ and \textit{māw} ‘kill’ boldfaced in (6), is understood from the context:

6) \textit{waj'-əb-ʃē} kān =diʔ \textit{māw =biká} pua!
pull-go.up-leave 3SG.M =OBJ kill =EMPH POW!
‘I pulled and left him and killed him at last! pow!’

Finally, the conjunction of NPs, as with the conjunction of predicates presented in (1)-(5) above, is also realized by the simple juxtaposition of the
Complex Clauses

conjoined NPs. This is illustrated in (7) below (some other examples were given in Chapter 5). The coordinated juxtaposed NPs are boldfaced:

7) \[ \text{tf\text{\'}enw\text{\'}a = wit = h\text{\'}i} \]
\[ \text{two = REP.EVID = REM.PST} \]
\[ \text{\textbf{\text{ʔa = \text{\'}we\text{\'}h\text{\'}en\text{\'}e}}} \]
\[ \text{3SG.M = older.brother} \]

\[ \text{\textbf{\text{ʔa = \text{\'}kd\text{\'}i}}} \]
\[ \text{3SG.M = younger.brother} \]

‘there were two of them (it is said), his older brother and his younger brother’

13.1.2 Disjunctive coordination

Coordinated clauses expressing disjunction have two possible realizations. They can be marked with the morpheme \textit{o} (a loan from the disjunctive conjunction \textit{o} in Spanish),\(^2\) or by simple juxtaposition (asyndetic coordination). The use of morpheme \textit{o} as a marker of disjunction seems to be used more frequently among younger speakers of Kakua. The simple juxtaposition strategy as a form of disjunction is a more frequent strategy, especially among elder speakers.

Example (8) below comes from a conversation with one of the eldest Kakua men. He does not use an overt marking for the disjunctive construction. The interpretation as a disjunction is given by context. A conjunctive reading (‘and’) is also possible, but in the example below, the speaker interpreted from the context that the reading of the sentence should be that of disjunction:

8) \[ \text{w\text{\'}ir-kan} \]
\[ \text{m\text{\'}em} \]
\[ \text{h\text{\'}ef-kan = na = ka} \]
\[ \text{\text{\textbf{k\text{\'}et}}} \]
\[ \text{not.exist-NEG} \]
\[ \text{2SG} \]
\[ \text{know-NEG = DECL = ASS} \]
\[ \text{3PL} \]

\[ \text{h\text{\'}ef-kan = na = ka} \]
\[ \text{know-NEG = DECL = ASS} \]

‘no, you don’t know, or they don’t know (the story)’

Example (9) shows the disjunction of NPs, also without a connector, although the interpretation is that of a disjunctive construction:

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\(^2\) The use of \textit{o} as a disjunctive connector is found in many other languages of the Vaupés, which might suggest that its use in Kakua came from contact with perhaps Tukanoan languages (although it must ultimately have a Spanish source). However, its predominant use by younger speakers in Kakua, might also suggest that it was borrowed directly from Spanish.
9)  kan ʔĩ=fîʔ-hɨ jbi-at=ti=hĩ ʔĩ=mɨ̌ PROX.DEM 3PL=be.first-arrive.here-NMLZ=INTS=REM.PST 3PL=house

ʔĩ=hâ-āt=diʔ  pan=be  ṭfā-h-ap=ta=be 3PL=do-NMLZ=OBJ like:this=REC.PST do-PST=INF.EVID=REC.PST

nih-nâw' = na  kan=diʔ=wiʔ
say-tell = DECL PROX.DEM = OBJ = REP.EVID
‘tell of their first arrival, or their doing of houses, like this they did, tell of that’

Example (10) below shows the use of the Spanish loan o (the most common among younger speakers) in a disjunctive construction. This is an example of the coordination of NPs.

10) hàw' dedë  pan' nih=dē=hī  ṭā=mâwmâʔ
know what like.this say=DUB=REM.PST 3SG.M=teeth

o ṭā'ij=teʔ-tjū o 3SG.M.POSS = hand-CL:cover
‘What is it that makes that noise? is it his teeth or his fingernails?’

Although no example of the disjunction of clauses using the Spanish loan o occurs in the currently transcribed Kakua data, I report here the use of o for the disjunctive coordination of clauses from the speech of younger Kakuas that I overheard. Disjunction with the Spanish loan o is more frequent in conversations, and less so in narratives. Perhaps this has to do with the speakers’ perception of narratives as a speech event usually used with stronger authority among the elder generation, who tend to use the juxtaposition strategy rather than the use of the disjunctive coordinator o from Spanish.

Mithun (1988:332) suggests that languages that lack a writing system (or lacked it until recently) often lack indigenous coordinators and use coordinators borrowed from prestige languages such as Spanish, English, Arabic, and Russian instead.

### 13.1.3 Adversative coordination

Adversative expressions encoding an emphatic meaning of opposition are marked with the particle ṭubuʔheʔti ‘but/although/on the other hand’. Its polysyllabic form suggests that it is historically complex, but the etymology of this word remains unclear.³ Some examples of the use of this adversative particle are given below:

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³ Hypothetically this form may be analyzed as follows: ṭu-buʔ=heʔ=ti ‘?-?=INTS=INTS’. The first unidentified morpheme in this analysis, ṭu, might be a nativized form of the borrowed Spanish.
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11) \( t\ɨ̂j-ni=di\)  \( wëm\ bid=na=hi\)  \( w=\tau\ɨ̂\text{f}āh=hi\)
   be.good-A.NMLZ = OBJ  1SG search = DECL = REM.PST  1SG = PROG = REM.PST

   \( \?\text{uba}/\text{he}/\text{ti}?\)  \( \text{victor}=i\?)  \( mɨ=bɨ=hi\)
   \textit{but}  \( \text{victor} = \text{POSS} \)  \( \text{house} = \text{LOC} = \text{REM.PST} \)

   \( f=\text{him}-ip=hi\)  \( \textit{mik-wē}=e=na\)  \( \textit{f}=\text{τ-f}āh=hi\)
   1PL = be- PST = REM.PST  REML-chat = DECL  1PL = PROG = REM.PST

   ‘I was searching for the good, \textit{but} we were discussing (about the evil spirits) in Victor’s house’

12) \( t\text{e}w-at=di?\)  \( ?i=\text{hīb}-t\text{f}āh\)  \( ?a=\text{τ-f}āh-ni?=na\)
   \( \text{work-NMLZ} = \text{OBJ} \)  \( 3\text{PL}-\text{pay-do} \)  \( 3\text{SG.M} = \text{do-simply} = \text{DECL} \)

   \( w=\text{ta-wē}=\text{tagā} \)  \( \?\text{uba}/\text{he}/\text{ti}?\)  \( ?i=\text{hīb}-t\text{f}āh-\text{kan}=be\)
   1SG = EVID-be.happy = EVID  \textit{but}  \( 3\text{PL} = \text{pay-do-NEG} = \text{REC.PST} \)

   ‘I would’ve been having a party today if they had paid the work, \textit{but} they didn’t pay’

   In addition to the adversative particle \( \?\text{uba}/\text{he}/\text{ti}?\), Kakua also uses juxtaposition to express adversative relations. Although this is more limited, and the adversative coordinator connector \( \?\text{uba}/\text{he}/\text{ti}?\) is preferred, a few instances of juxtaposition with an emphatic adversative meaning are found within the corpus. Example (13) below illustrates this adversative reading of the juxtaposed construction. Note that in this construction the emphatic clitic \( =bū\) is used to encode a contrast between the emphasized elements (see Chapter 3 for a discussion of the emphatic semantics of \( =b\)):

13) \( kān=bū\)  \( \text{hid}-\text{be}?=na=\text{wit}=hi\)  \( kēt=bū\)
   \( 3\text{SG.M} = \text{EMPH} \)  \( \text{show-grow} = \text{DECL} = \text{REP.EVID} = \text{REM.PST} \)  \( 3\text{PL} = \text{EMPH} \)

   \( t\text{e}w-\text{wi}/\text{ti?=kan} \)  \( ?\text{im}=na\)  \( kān=di?\)
   \( \text{work-not.exist-NEG} \)  \( \text{be.afraid}=\text{DECL} \)  \( 3\text{SG.M} = \text{OBJ} \)

   ‘(He) showed (the evil spirit), \textit{but} they wouldn’t touch (it), they were afraid of him’

---

disjunctive \( o \) ‘or’, and the second one, \( bu?\) might correspond to the emphasis clitic \( =bū\). Given the lack of transparency of the form, no further hypothesis at this point can be drawn.
13.2 Subordination

The combination of clauses in an asymmetric relation in Kakua is realized through five main strategies. These are presented in the following table, indicating which strategy is used for which kind of subordination:

Table 13.1 Subordination strategies in Kakua

<table>
<thead>
<tr>
<th></th>
<th>Relative clauses</th>
<th>Complement clauses</th>
<th>Adverbial clauses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphological marking:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subordinator suffix -ni ~ -nit ‘SUBR’</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>embedding or juxtaposition of subordinate clause</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>repetition of the verb root of the predicate of the main clause</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Marking with adverbial particles</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>nominalization of the verb of the subordinate clause</td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

As shown in Table 13.1 above, these five different subordinating strategies are used to form three types of subordinate construction in Kakua. A canonical description of subordination regards it as a particular type of combination of clauses, such that one of them is syntactically and semantically dependent on the other (c.f., Langacker 1991, Cristofaro 2003). The subordinate clause functions as a constituent of the higher clause. This presupposes a distinction between main clauses and subordinate clauses. I follow here the general definitions of these three types of subordinate constructions as defined in e.g. van Gijn et al (2011:3), Cristofaro (2003), and Haumann (1997): complement clauses, which function as arguments of the verb of the superordinate clause, are described in §13.5; relative clauses, which function as modifiers of a noun phrase in the superordinate clause, are described in §13.6, and adverbial clauses, which modify the verb of the higher clause or the higher clause in its entirety, are described in §13.7.

As shown above, subordinate clauses in Kakua can often be identified by morphological cues (suffixes, clitics, particles, or even verb roots): i.e., there are morphological elements that serve to identify the subordinate clause in a complex clause construction (Table 13.1). These elements, as introduced in Table 13.1, have
different syntactic positions with regard to the subordinate clause. They can be in initial position of the subordinate clause (as with the temporal adverbial particle $titi$mǎ$ʔ$ ‘then’), be cliticized to an element of the subordinate clause (as with switch reference markers when used to link adverbial subordinate clauses, see §13.7 below), suffixes (as with the subordinator suffix -ni, see §13.5 and §13.6 below), or as post-or prepositions (as with the potential particle $pi$nǎ$ʔ$ ‘POT’ see §13.7 below).

As presented in Chapter 11, the preferred order of constituents in Kakua is that in which the predicate of the clause is in final position (S)OV. Adjuncts and subordinate clauses tend to occur embedded in the main clause (see, however, examples of exceptions to this in §13.4 for tail-head linkage, and in §13.5 for complement clauses). The internal structure of the embedded clause also tends to maintain the preferred OV order. Thus, in an asymmetric combination of clauses (subordination), there are going to be two predicates, one pertaining to the subordinated clause, and another one pertaining to the superordinate clause. A structure similar to the following is typical for an asymmetric combination of clauses in Kakua, where the square brackets refer to the subordinate clause in the construction: (S)[(S)OV]OV.

The subordinate clause furthermore in the majority of cases precedes the element that it modifies or is an argument of in the main clause. Thus, complement clauses (§13.5) in the majority of cases precede the predicate of the main clause, as follows: (S)[COMPLEMENT]V (see discussion of exceptions below). Likewise, relative clauses (§13.6) tend to precede the N they modify, but relative clauses may also follow their head. Example (14) illustrates a complement clause that precedes its head, the predicate of the main clause.

14) $Te$ wěm = diʔ $[Marcela$ $ʔhɨmat = diʔ]$ $ʔa = nâw$'-ap = be
   Te 1SG = OBJ Marcela be.married = OBJ 3SG.M = tell-PST = REM.PST
   ‘Te tells me [that Marcela got married]’ ($ʔhɨmat$ ‘be.married’ $ʔa = hɨm$-at
   3SG.M = exist-NMLZ)

Before turning to the specific description of the different types of subordinate clauses in Kakua (complement, relative and adverbial clauses), the following subsection, §13.3, focuses on the description of markers of switch reference in Kakua, which play important roles in both main and subordinate clauses. A subsection discussing bare verb roots, as introductory elements to subordinate clauses, is given in §13.4. Finally, descriptions of complement clauses, relative clauses, and adverbial clauses are given in §13.5, §13.6, and §13.7 respectively. Causal constructions, which involve the use of a finite verb (and perhaps more recently the repetition of a bare verb as a linking strategy to express causation), are described in §13.8.
13.3 Switch reference markers

13.3.0 Introduction

Kakua has two clitics which may indicate the maintenance or switch of subject referents across clauses. These markers are not obligatory. However, the criteria conditioning their occurrence have not yet been explored. They also have some exceptional uses which likewise have not been explored in detail yet. Therefore the description provided in the following sections must be regarded as preliminary. These clitics are used both in main and subordinate clauses. The forms, also given in Table 13.1 above, are: different subject = ʧaʔ='D.S', and same subject = nit='S.S'. These clitics attach not only to verbs, but to other parts of speech as well (e.g., pronouns (15) below). Likewise, switch reference clitics in Kakua are not restricted to subordinate clauses, as they occur also in combination with main clauses (see examples below). These switch reference markers can be used to mark adverbial clauses. Such an adverbial use of the switch reference markers seems to be, according to van Gijn et al. (2011:8ff), a common strategy in South American languages. The present section aims to show the semantics of the switch reference markers, and does not particularly focus on the adverbial uses of these markers.

13.3.1 Different subject = ʧaʔ ‘D.S’

The clitic = ʧaʔ attaches in last position to a predicate to indicate that the subject of the following clause is different from the subject of the clause to which it is attached (see however exceptions below). The following example illustrates the use of the different subject clitic. Note that the subject of the first clause ‘he (the person) found the armadillo’, is not the same as that of the second clause ‘he (the armadillo)’. Note also the same subject marker at the end of the second clause.

15) jũ=diʔ  ὦʻaʔ=na  ὦʔ=beh-ep=ʧaʔ
  armadillo = OBJ  find = DECL  3SG.M = go-PST = D.S

  ὦʔ=t-bud-ʧũ-ıp = wit = hũ
  3SG.M = EVID-cut-step-PST = REP.EVID = REM.PST  3SG.M = S.S

  ᾱʔ = j-p = na  kãk = diʔ  jũ = jũb
  pass-FRUST = DECL  person = OBJ  armadillo = EMPH
  ‘he (the person) found the armadillo, he (the armadillo) blocked the way, he wanted to pass the person but couldn’t, the armadillo’

Likewise, the subject of the first clause in (16) below ‘the numadi ants’, is not the same as that of the clause that follows ‘the people die and fall’.

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4 See Chapter 8 for a discussion on the syntactic position of same subject morpheme when attached to verbs, where its status as both a suffix and as a clitic is discussed.
16) numadi-wā tiḅ̣̇ = ṭfa? win-bīg-tāʔ = nīt = heʔ? win-bīg
ant.sp-PL hurt = D,S die-fall-stumble = S,S = INTS die-fall
‘when the numadi ants sting, (the people) die and fall down and die and fall’.

The following examples show some of the problematic cases which have not yet been fully analyzed. These have to do with 1) the element to which the switch reference marker attaches, and 2) whether the switch reference clitic may occur more than once within the same clause, and if so, what the factors triggering the occurrence of this marker (or its complete absence) are. To illustrate a case in which the switch reference clitic occurs twice in the same clause, an example is given in (17) below:

17) ʔĩ = baḅ̣̇-āt = ṭfa?  min = ĩp = ṭfa?
3PL = drink-NMLZ = D,S chat = PST = D,S

ʔā = tā-tij-hūj-tēw-tʃīd-beiʔ-hid-ipv = tagā
3SG.M = EVID-be.good-listen-work-sit-grow-show-PST = INF.EVID
‘[while they were drinking and chatting] he (bumblebee) should’ve been sitting, listening and working and showing’

The following example illustrates a case in which the switch reference clitic is used but the subject of the following clause is not different from the subject of the preceding clause. Rather, it is found in the clause in which the switch of reference occurs, as in (18), where it attaches to the noun kãk ‘person’, and this ‘person’ is the one being extinguished, different from the subject of the preceding clause ‘mothers’. Note that in (18) the different subject marker is attached to a noun, showing it satisfies the ‘freedom of host selection’ criterion of clitics. Also, the same example (18) shows that, although switch reference markers can serve as subordinators, they are better defined as markers that serve to combine clauses, whether these are dependent on one another or not.

18) bi ma = mā = na wīlį̣-kan = ka ma = mā = na
today 2SG = mothers = DECL not.exist-NEG = ASS 2SG = mothers = DECL

bēd = na kāk = ṭfa? bēd = na
extinguish = DECL person = D,S extinguish = DECL
‘today your mothers are not there, your mothers are extinguished, people are extinguished’
13.3.2 Same subject =nit ‘S.S’

The same subject clitic\(^5\) =nit indicates that the subject of the following clause\(^6\) is the same as that of the clause to which it is attached. The following examples illustrate this, with both subordinate and main clauses.

19) høj-kan = héʔ ma = wēj = nit ma = ?ên-ep
cry-NEG INTS 2SG = be.happy = S.S 2SG = see-PST
‘don’t you cry, you’ll be happy, you see’.

20) [kun = bũ wēm bi nin húptʃi = diʔ tēw-bēd = nit],
DEM.DIST = LOC 1SG today DEM.PROX year = OBJ work-extinguish = S.S

\(\text{pēa = nit hoda? = diʔ wā = mumɪ’-bip = na, mumɪ’-pēa = nit}\)
finish = S.S banana = OBJ 1SG = plant-FUT = DECL to.plant-finish = S.S

tʃi = diʔ wā = mumɪ’-bip = na pēa = nit
pineapple = OBJ 1SG = plant-FUT = DECL, finish = S.S

\(\text{wā = hāh-beh-bip = na = ka bīʔ finca = bũ}\)
1SG = go.down.river-go-FUT = DECL = ASS other farm.field(SP) = LOC
‘there this year I will finish my work, when I finish I will plant bananas, when I finish planting I will plant pineapples, after finishing I will go downriver to another field’

21) [bota dīw-pēa = nit] mēm = diʔ nihi = tʃaʔ
boots(SP) carry-finish = S.S 2SG = OBJ say = D.S

tʃubeh biká
lets.go EMPH
‘to you (he) will say ‘let us go!’’, when (he) finishes putting on his boots’

22) [nɨp = diʔ māw-pēa nɨp = diʔ māw-pēa = nit] hodaʔ-nīw-naʔ
animal = OBJ kill-finish animal = OBJ kill-finish = S.S banana-leaf-CL:tree
‘after having killed the animal, they made a house of banana leaves’

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\(^5\) See Chapter 8 for a discussion of the homophonous form -nit, a verbal suffix.

\(^6\) As is the case for the different subject marker described in 13.3.1, the syntactic distribution of the same subject clitic occurs in the majority of cases, preceding the clause that it introduces. See however, examples such as (22) below, where the same subject clitic occurs in the last clause.
As in the case of the different subject clitic, the same subject clitic can attach to elements other than verbs. This is illustrated below (see also (15) above, where the same subject clitic occurs on a pronoun):

23) \[t]i[index]peʔ = nit =be niwá mēm kān = diʔ]\n\[at.last =S.S =REC.PST grandfather.VOC 2SG 3SG.M = OBJ\n\[ma = ?thʔ-hhʔ-ʔ \quad ma = ?nwʔʔ = diʔ\n2SG = take-come-IMP 2SG = relative = OBJ\n\[‘Finally granddad! you bring him!, to your relative’\n
In summary, there are two clitics in Kakua that often seem to indicate a change or maintenance of the subject across clauses, be these combinations of independent clauses or combinations of independent and subordinate clauses. Note that example (20) also involves the repetition of the verb and the object of the preceding clause, as a strategy to temporally link independent clauses among themselves. This strategy, described for many languages as tail-head linkage, is presented in the following subsection.

Some questions regarding switch reference markers that should be undertaken in future research are: What conditions the syntactic position of switch reference markers? What are the semantic, discourse, syntactic or pragmatic environments that favors the occurrence of switch reference markers? Are the conditions regarding their occurrence in main clauses different from the ones governing their occurrence in subordinate clauses?

13.4 Bare verb roots as clause linkers: tail-head linkage

In addition to the switch reference markers presented in §13.3 above, Kakua uses repetition of bare verb roots as a strategy to link clauses, in a system of ‘tail-head linkage’ (c.f., Hopper 1979, Stirling 1993, Thompson et al. 2007; also Givón 2001: 347). Tail-head linkage, as described previously for other languages, consists of connecting (groups of) sentences or clauses by partially or completely repeating the predicate of the last element of the linked clauses or sentences (the ‘tail’) at the

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7 Note also that, as in the case of the different subject marker, the same subject marker in example (15) and (23) above is cliticized onto an element of the main clause. Thus, this same subject marker should not be described as a marker of subordination, rather, it can be more accurately described as a marker that serves to combine clauses.

8 Note however that the repetition of the object argument is not a usual characteristic of tail-head linkage strategies.

9 Other terms used are ‘linkage’, ‘head-tail linkage’, ‘recapitulative linkage’, ‘tail-head recapitulation’ (c.f., Guillaume 2011:109 ff and other references there given). It is commonly found simply with the abbreviation THL.
Kakua uses tail-head linkage as a way to temporally connect sentences or clauses together, to recapitulate parts of the previous sentence or clause that sets the (simultaneous) beginning of the following sentence or clause. When using a predicate as a ‘linker’ (or connector of a chain of clauses or sentences), most of the verbal morphology can omitted, but it is not obligatorily omitted. The only verbal morphology that must be omitted with predicates when these are functioning as linkers are cross-referencing proclitics. Suffixes and enclitics, on the other hand, seem to be allowed in these connecting predicates. An example of the repetition of a predicate as a linking strategy is given below (see also example (20) above). The translation given to the connecting predicates is usually that of ‘while VERBing’, or ‘once VERBed’, or ‘after VERBing’. The connecting predicate is boldfaced:

24) dettũp ʔä=t-jäj-ap = wit = hĩ
   liana  3SG.M  = pull-PST  = REP.EVID = REM.PST  pull  = DECL  run-jump-go
   kān
   3SG.M

   ‘he pulled a liana, (after) pulling he ran off’

An interesting characteristic of this repetition of the predicate as a linking strategy in Kakua is that many examples show the repetition of the object argument as well. Examples of this are given in (25)-(26) below:

25) ʔä =ta-hiba
    ʔibi-bād da?  hijbi
    3SG.M = EVID-arrive here  uncle-deceased  arrive here

    ninaʔbeh = na
    go.with.company = DECL

    ʔä =ta-ʔib=ʔi = hi
    naʔ-bād da?= diʔ
    1PL = mom-deceased = OBJ

   ‘the deceased uncle arrived here, arriving here with company he took our deceased mom’

---

10 Some authors, e.g., Seifart (2010b) for Bora, include not only predicates, but also other linking elements (such as pronouns) in the description of ‘tail-head linkage’ for specific languages.
26) kan = na ʔĩ=t -ʔɨ n-ɨ p=ta=be  hû=di? 
DEM.PROX = DECL 3PL = EVID-grind-PST = INF.EVID = REC.PST  corn = OBJ

* dawã ʔĩ=n n=it bikã  kan = di? ʔĩ=be * 
many grind = n=it 3SG = OBJ grind-finishing 

ʔĩ=t-hën’-ep = ta = be kêt 
3PL = EVID-eat-PST = INF.EVID = REC.PST  3PL
‘there they grinded lots of corn, grinding it at last, after grinding, they ate’

Additionally, in some examples, such as the one presented in (27) below, there seem to be different tense values for the tail-head linking verbs. Note in the following example that the ‘repeated’ verb is marked for remote past, while in the preceding instance it is marked for recent past. Examples such as this also raise questions regarding the exact way in which this strategy of repetition of predicates relates to the canonical description of tail-head linking strategies.

27) kêt ʔĩ=t-ʔićw-ɨp = ta = be  ʔićw-ɨp = hĩ 
3PL  3PL = EVID-sleep-PST = INF.EVID = REC.PST  sleep-PST = REM.PST

* mĩ tfâh-ʔičw 
house do-sleep 
‘they slept, (after) sleeping, (they) made a house and slept’

De Vries (2005:376f), in a typological study of tail-head linkage in Papuan languages, reports that in some of those languages, instead of repeating the last predicate of the ‘tail’ clause, the tail-head linkage is formed by using a verb meaning ‘do’ or ‘be’ (translating into ‘having done that/so’ or ‘being so’). This type of linkage strategy de Vries labels ‘generic verb linkage’.11 Similar to this, Kakua often uses the verb pêa ‘finish’ as the linking ‘generic’ verb instead of repetition of the same predicate in the ‘tail’ clause is used. This strategy in Kakua serves as a temporal linkage of clauses, indicating the temporal sequence of the events. The translation given in these constructions is ‘after finishing VERB’, referring to the completion of the event expressed by the predicate of the ‘tail’ clause. See the following example:

28) tãi-ʔikt nin = di? pew’-jû’bã = ka 
base.of.blow.gun-CL :log THIS = OBJ to.hammer-make.exit.across = ASS

* pea nin = di? tij-tij = na 
finish THIS = OBJ be.good-be.good = DECL 
‘to this base of the blowgun hammer until it exits across, finishing, do well this one’

11 Also called ‘summary-head linkage’ in Thompson et al. (2007: 274ff).
The verb *pēa* ‘finish’ can also occur together with a repeated predicate of the ‘tail’ clause, reinforcing the temporal sequencing of the linked clauses. The following example illustrates this:

29) \( būd-hēnaʔ = buh = nīt \quad mīʔ = wāw-jūk \quad newēʔ \quad ʔāj = da? \)

\( \text{cut-count} = \text{DIR} = \text{S.S} \quad \text{3SG.F.POSS} = \text{head-hair man} \quad \text{3SG.M.POSS} = \text{CL:round} \)

\( \tilde{t} = t-\text{ṣāh-āp} = \text{wāt = hī} \quad \text{ṣāh-pēa = nīt} \quad kāj = \text{di?} \)

\( \text{3PL} = \text{EVID-do-PST} = \text{REP.EVID} = \text{REM.PST} \quad \text{do-finish = S.S} \quad \text{3SG.F = OBJ} \)

\( \tilde{t} = t-\text{ṣāh-up} = \text{wāt = hī} \quad \text{3PL} = \text{EVID-bath-PST} = \text{REP.EVID} = \text{REM.PST} \)

‘(they) cut her hair like a man’s head they did, finishing doing, they bathed her’

The use of bare verb roots as a tail-head linkage strategy in Kakua serves to maintain a temporal continuity of the events when there is a sequencing of clauses in the discourse. As can be seen in the examples in this section, the sequence of clauses may, but need not, be dependent on one another. As with the description for switch reference markers presented in the preceding section (§13.3), tail-head linkage in Kakua is more accurately described as a strategy of linking combined clauses, rather than merely a subordination strategy, although it may serve to introduce a subordinate clause.

The tail-head linkage strategy presented here for Kakua behaves similarly to those described for other South American, and particularly Amazonian, languages (e.g., Guillaume 2008 for Cavineña, Zariquiey 2011 for Panoan Kakataibo; Michael 2009 for Zapororoan Iquitos; Overall 2016 for Chicham Aguaruna). It has been noted before (c.f., Guillaume 2011:112f) that there may be a correlation in some languages that have tail-head linkage strategies to also have a switch-reference system.

The fascinating expression of tail-head linkage and switch-reference, and the further unexplored functions or semantics that these might encode in Kakua, should be further explored in future analysis and research to expand on the basic description presented here. For example, it will be interesting to see whether the tail-head linkage system or the switch reference markers can be analyzed as a type of cosubordination (as defined by Van Valin & LaPolla 1997) in Kakua.

### 13.5 Complement clauses

A complement clause is commonly defined as a clause that functions as a core argument of the predicate of the main clause (c.f., Givón 2001:39, Dixon 2006:15-40, Noonan 1985:46, 2007: 52). Predicates that can take a complement clause, instead of an NP, as their argument, are commonly verbs that encode meanings of, e.g., say, believe, wish, know, see, hear, tell (Noonan 2007). These type of predicates
are commonly called ‘complement-taking predicates’ or ‘CTPs’ (e.g. by Noonan 2007:53).

In Kakua, common CTPs are verbs like *nih* ‘say’, *nāw* ‘tell’, and *hējnahūj* ‘think/believe’ (from *hēj* ‘know’ and *hūj* ‘listen/understand’). Complement clauses in Kakua do not take special subordinating morphology (i.e., a complementizer particle). Syntactically, complement clauses are most typically embedded within the main clause:

30) *fīt* [\[Iginio tew-būpfew-ni = na = ka\] \[fī = ni?\] \[1PL Iginio work-have.flu-ADJVZ = DECL = ASS 1PL = not.know\] *bēf/nahūj-kan = be* think-NEG = REC.PST ‘we didn’t think [that Iginio was sick]’ (with dengue)

Although the complement clause tends to be embedded within the main clause, alternative orders can also be found. Consider example (31), referring to a child who is in her crawling stage, perhaps about to walk. In (31) the complement clause occurs following the main clause. The alternative order in (32) is also accepted by speakers.

31) *kān’* \[mi = nih-hējnahūj = na\] \[3SG.F = 3SG.F = say-think = DECL\] \[\{\{fē]ejbit \[mi = japtf-hej-bip = na = ka\] \[tomorrow \[3SG.F = walk-know-FUT = DECL = ASS\] ‘she says that she thinks [that she will know how to walk tomorrow]’\]

32) \[\{fē]ejbit \[mi = japtf-hej-bip = na = ka\] \[tomorrow \[3SG.F = walk-know-FUT = DECL = ASS\] \[3SG.F\]‘she says that she thinks [that she will know how to walk tomorrow]’

Example (33) below also shows a case in which the complement clause follows the main clause:

33) *wā = hēj’-kan = ka* \[\{dedpa? = ka\] \[Pī = ūfāh-āp = tagā\] \[1SG = know-NEG = ASS WHAT = ASS 3PL = do-PST = INF.EVID\] ‘I don’t know [what they did]’

Alternatively, the example shown above can also be analyzed as a combination of two main clauses (e.g., ‘I don’t know, what did they do?’).
The conditions allowing for these alternate orders have not yet been explored and await future research.

13.6 Relative Clauses

Relative clauses are clauses that modify an NP of the main clause (c.f., Keenan 1985, Van Valin 2005:183-224). In Kakua, relative clauses differ from complement clauses in that they are marked with the relativizer suffix –*ni/-nit*12 (here glossed as SUBR ‘subordinator’) that attaches to the predicate of the relative clause. The relative clause precedes the noun that it modifies.13 When the relative clause is modifying the object argument of the main clause, the object marker may also occur on the relative clause (e.g. (35) below). The relativized noun phrase can be the subject, or object (as in (35)-(36) below) within the relative clause. There is no relative pronoun in Kakua, and as the examples below show, the subordinator suffix marks the predicate of the relative clause:

34) [fin tēw-*ni] newē ḋã=wɨ n-at
yesterday work-SUBR man 3SG.M = die-NMLZ

ʔã = beh-ep = be
3SG.M = go-PST = REC.PST
‘the man [who worked yesterday] died’ (the man who worked yesterday went to his death)

35) [ʧɨ̂=diɁ hěm-*ni] = diɁ ɲɨj=diɁ
pineapple = OBJ eat-SUBR = OBJ opossum = OBJ

Thr = mâw-ap = be
3PL = kill-PST = REC.PST
‘they killed the opossum [that ate the pineapple]’

---

12 Note the (near) homophony of this morpheme with other functional morphemes in Kakua: the interrogative clitic =nit ‘INTERR’ (Chapter 8), agent nominalizer suffix -ni ‘A,NMLZ’ (Chapter 4), collective plural -nî ‘PL.’ (Chapter 4), and same subject elitic =nit ‘S,S’ (Chapter 8 and section §13.3 above). The homophony of morphemes in Kakua has been seen also for other morphemes (e.g., declarative =na, inanimate plural number -na, emphatic =bů and locative =bů). The extent to which all of the -*ni*/-nit* forms might have a historic relation hasn’t been explored yet. Finally, the variants -ni ~ -nit as complementizer suffixes seem to have free variation even within one and the same speaker. Since I did not test for a context in which one form would be preferred over the other, a more systematic study should be undertaken in future research on Kakua.

13 According to Dryer (2013), relative clauses preceding the noun are rather uncommon outside of Asia. He also points out that typologically languages in which the relative clause precedes the noun are also verb-final languages, which is true for Kakua.
Examples (35)-(37) above raise various interesting questions. One concerns the marking of object case on both the relative clause and the head noun. Probably this marking on both elements is a formal distinction that, in addition to the use of the subordinator marker -ni ~ -nit, helps to identify relatives clauses from other types of subordinate clauses. Or maybe the marking of object case on both the relative clause and the head noun can be interpreted as an apposition of a headless relative clause and the noun to which it refers (headless relative + head N. See examples of headless relative clauses below).

Another interesting construction of relative clauses is that shown in example (37). This is an internally headed relative clause, which illustrates yet another strategy of relative clause formation. Kakua can thus be said to have externally headed relative clauses, internally headed relative clauses, headless relative clauses, and (maybe) the apposition of the relative clause and the head noun.

Future research on these different subordinating constructions will undoubtedly provide us with very enriching typological information of subordination strategies in the languages of the area.

Kakua frequently uses headless relative clauses. Thus, the subordinate clause occurs on its own and, as other relative clauses, usually precedes the predicate of the main clause. Examples of headless relative clauses are given below. Note that perhaps because of the lack of a head NP, in this type of headless relative clauses, the subordinate clause seems to also be able to function as an argument of the main clause (to function as a complement clause). Headless relative clauses are, by definition, arguments of the main clause; thus, finding a formal difference between headless relative and complement clauses can help to set these constructions apart in Kakua. Possibly, a formal difference is the presence of the subordinator particle -ni ~ -nit ‘SUBR’. This formal distinction will help to describe examples like the ones in (39)-(41) below, but does not account for the headless relative in (38) which lacks the subordinator suffix. A rigorous evaluation of the different types of subordinate clauses and their strict formal distinctions awaits further research:
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38) ʔã=bû-wili=hẽʔ?=be  
     3SG.M = belong.to-CL=fem = INTS = REC.PST
   mi=t-běh-cart=tê=bê  
     3SG.F = EVID-go-PST = EVID = REC.PST
   ‘[the one who was married]relative left,’

39) [kan=na kan-manʔ him =ni]=diʔ  
    DEM.PROX = DECL DEM.PROX-side exist = SUBR = OBJ
   ma=beh-kabuhú ʔi=pí-nih=na=wi=hi  
    2SG = go-NEG.IMP 3PL = HAB-say = DECL = REP.EVID = REM.PST
   ‘They always used to say [to those who were on here on this side] ‘don’t go!’

40) [fin dâdaʔ =diʔ ṭen-ni=hi]=diʔ  
    yesterday reflex = OBJ see = SUBR = REM.PST = OBJ chat-tell
   min-naw̌ʔ  
   naw̌ʔ = na
    tell = DECL
   ‘(you) telling [of what you saw yesterday in the movie]’

41) [ʔi=hit-feh-ni=na=diʔ ʔi=mup-ni=na=diʔ  
    3PL = grind-leave SUBR = DECL = OBJ 3PL-to.rot-SUBR = DECL = OBJ
   ʔi=babʔ-ni=na] niʔat ʔã=píʔi̇b-bêd  
    3PL = drink-SUBR = DECL everything 3SG.M = HAB-take-finish
   ‘he would always take [that of what they grinded and left, that of what they rot,  
   that of what they drink, everything’

   Finally, it must be stated that this work has not undertaken a careful test on  
   what arguments within the relative clause can be relativized, and for this reason I  
   have not provided a description of arguments that may or may not be relativized  
   (whether or not the relativized noun can be the subject, object, or oblique, or any  
   other within the relative clause).
13.7 **Adverbial clauses**

Clauses which modify the verb of the higher clause or the higher clause in its entirety (adverbial clauses) are marked with adverbial particles. Table 13.2 below lists the particles that are involved in forming this type of adverbial clauses.

Table 13.2. Particles and morphemes involved in forming subordinate clauses

<table>
<thead>
<tr>
<th>Form</th>
<th>Meaning</th>
<th>Part of speech</th>
<th>Syntactic position with regard to the subordinate clause</th>
<th>Type of subordinate clause formed</th>
</tr>
</thead>
<tbody>
<tr>
<td>pēa</td>
<td>finish</td>
<td>verb</td>
<td>introduces the subordinate clause</td>
<td>temporal adverbial clause. Section §13.7.</td>
</tr>
<tr>
<td>pũnîʔ</td>
<td>at the same time</td>
<td>adverb</td>
<td>between the subordinate and the main clause.</td>
<td>temporal adverbial clause. Section §13.7.</td>
</tr>
<tr>
<td>tîtanaʔ</td>
<td>after/afterwards/then</td>
<td>adverb</td>
<td>in initial position in the subordinate clause</td>
<td>temporal adverbial clause. Section §13.7.</td>
</tr>
<tr>
<td>pînaʔ</td>
<td>for the purpose of/ potential ‘POT’</td>
<td>particle</td>
<td>sometimes in initial and sometimes in final position; occurs within the subordinate construction</td>
<td>purpose adverbial clause. Section §13.7.</td>
</tr>
<tr>
<td>pautnîʔ</td>
<td>and so/ in this way</td>
<td>particle</td>
<td>introduces the subordinate clause.</td>
<td>consecutive adverbial clause. Section §13.7.</td>
</tr>
</tbody>
</table>

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14 Additional adverbial particles can be found in Chapter 3, section §3.3.6 and in Table 3.11 of Chapter 3.
For temporal adverbial clauses, Kakua also uses bare verb roots (see §13.4 above) (note that this is a different strategy than verb serialization. See Chapter 9). In addition to the verb pêa ‘finish’, other verbs with similar semantics can be used in this function, e.g., bêd ‘extinguish’ or pê ‘be.last’ (these verbs are non-finite, used in their bare form, i.e., without any additional morphology). Examples (42)-(44) illustrate the use of such verbs as temporal linkers between the adverbial clause and the main clause. Note that, like complement and relative clauses, the adverbial subordinate clause precedes the main clause being modified. Note also that the verb does not necessarily need to be a bare verb root in order to serve as an adverbial clause linker (see also example (20) above, where these verbs appear to link two main clauses, instead of marking a subordinate clause):

42) \[ wĩ́ʔ = tēw-at = diʔ \quad bêd = nit \quad wîʔ = wâptʃ \]
\[ 1SG.\text{POSS} = \text{work-NMLZ} \quad = \text{OBJ} \quad \text{finish} = S.S \quad 1SG.\text{POSS} = \text{manioc.field} \]
\[ wã = wī̄-bip = na = ka \]
\[ 1SG = \text{weed.out-FUT} = \text{DECL} = \text{ASS} \]
\[ \text{‘[once I finish my work] I’m going to weed out my manioc field’} \]

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15 See examples in §13.3 below. It has freedom of host selection, not only verbs, e.g., it also attaches to pronouns.

16 See examples in §13.3 below. It has freedom of host selection, not only verbs, e.g., it also attaches to pronouns.
Complex Clauses

43) \[ bota \ \text{diw-pēa}=nit \] mēm = diʔ \ nihi = tʃaʔ \ tʃubeh
\[ \text{boots(SP)} \ \text{carry-finish} = \text{S.S. 2SG = OBJ} \ \text{say = D.S} \ \text{lets.go} \]

\[ \text{bikā} \]
EMPH

‘[when (he) finishes putting on his boots] to you (he) will say “let us go!”’

44) \[ dūk-hēna \ pēa \ mī = diʔ \ tūdup = jūb \]
\[ \text{to.filter-go.down} \ \text{finish} \ \text{house = OBJ} \ \text{sweep.floor = INTS} \]

\[ \text{bāk} = bā \]
dirt = 1.LOC

‘[after you’ve finished filtering (the manioc milk)] sweep off the dirt from the house’

An adverbial particle frequently used in Kakua to indicate temporal sequencing of events is \textit{tītima}? ‘then’. In example (45) below the adverbial particle links a nominalized subordinate clause (see below) to a main clause:

45) \[ wēm \ bī \ wā = tij-beʔ- bíg \]
\[ \text{1SG} \ \text{today} \ \text{1SG} = \text{be.good-grow-fall} \]

\[ \text{bikā} \]

‘Today I’m better, after she gave (me) her medicine, I am better finally’

Adverbials

46) \[ pan’ \ ?ā = nih-at \ pāni? \ ?ā = t-hāʔ-hip \]
\[ \text{and.so 3SG.M = say-NMLZ \ at.the.same.time 3SG.M = EVID-come-DUB} \]

\[ \text{pī} \ \text{kan} = \text{na} \]
TERM \ 3SG.M = DECL

‘So at the same time of his saying, he arrived there’
Purpose adverbial clauses can take the potential morpheme ʔ̣inaʔ ‘POT’. Unlike the other subordinate clauses, purpose adverbial subordinate clauses follow the main clause. The potential morpheme ʔ̣inaʔ ‘POT’ does not have any evident etymological source. The fact, however, that it forms adverbial clauses that are different from all other ones in that they follow the main clause, may suggest a historic development of ʔ̣inaʔ ‘POT’ that is different from other Kakua particles.

Also in the absence of adverbial particles, the nominalization of the predicate of the subordinate clause is used in Kakua as a type of adverbial subordination to describe a result or a process together with its result. Note that nominalization is a common strategy that South American languages use to create subordinate clauses (van Gijn et al. 2011:3). In Kakua, nominalizations can function in the same way as other subordinate clauses, where the adverbial subordinate clause precedes the main clause being modified. The subject of the nominalized verb is also the subject of the superordinate clause. Examples are given below:

49) [jěw ocho him-at=dě] ňib-hív’i = tʃaʔ
sun eight(SP) be-NMLZ=DUB return-arrive = D.S
‘at eight he was returning’

50) [wǎd-hỳj-at] ňèn ňi=bíd-hêm’-hũw’-ip
go.in-arrive-NMLZ see 2PL = search-eat-come-PST

‘[at the arrival] (she) watched, “you have come to look for food”’, she said’
13.8 Causal constructions

A causal relation between two events can be expressed in Kakua by a predicate construction with the verb root *hîb*. The use of this verb to express a causal relation seems to be falling out of use, and only a few older people still use this verb with a meaning such as ‘do as a consequence of’. Some speakers reported still knowing and using this verb with such a meaning; however, they still attributed the correct use of this verb to the older generation. Also, while in an elicitation session with an elderly speaker, the young men accompanying the session would inquire about the meaning of *hîb* when used by the older speaker. The following example illustrates an instance where the verb *hîb* is used to express a causal relation:

51) ʔã=t-ʔɨ w ʔã=t-hîb hiw kán=diʔ

3SG.M=EVID-sleep 3SG.M=EVID-do.as.consequence jaguar 3SG.M=OBJ

ʔã=t-hěm'-ep=w =be
3SG.M=EVID-eat =REP.EVID=REC.PST

‘Since he fell asleep, the jaguar ate him’

Younger speakers make use of some of the adverbial strategies in order to construct causal relations, but more often by linking clauses via bare verb roots (described in 13.4 above), resulting in constructions like the elicited example in (52) below:

52) ʔã=t-ʔɨ w=ep be ʔɨ w hiw kán=diʔ

3SG.M=EVID-sleep-PST=REC.PST sleep jaguar 3SG.M=OBJ

ʔã=t-hěm'-ep=w =be
3SG.M=EVID-eat =REP.EVID=REC.PST

‘he fell asleep. Sleeping, the jaguar ate him’ (because he fell asleep, the jaguar ate him)
13.9 Summary

Kakua has different mechanisms of expressing the relation between events:

i) Verb serialization, which serves to express events that are conceptually integrated into a bigger event (described in Chapter 9) and which is not a combination of clauses,

ii) coordination, which serves to express a symmetrical relationship among different independent clauses (described in §13.1 in the present chapter),

iii) subordination, which expresses a dependent relationship among the combined clauses (described from §13.2 onwards in the present chapter).

The coordination of clauses in Kakua is most commonly expressed by the simple juxtaposition of the coordinated clauses. Additionally, for some types of coordination, such as disjunction (§13.1.2) or adversative coordination (§13.1.3), there are morphemes that serve as coordinators between the related elements.

Subordination of clauses in Kakua uses five main mechanisms: morphological marking with the subordinator -ni ~ -nit ‘SUBR’ (to form relative clauses §13.6), the repetition of the verb root of the predicate of the main clause (§13.4 and §13.7), the use of adverbial particles (§13.7), and the nominalization of the predicate in the subordinated clause (§13.7). Additionally, to form complement clauses the juxtaposition or the embedding of the complement clause within the main clause is sufficient. These mechanisms are used to express the three main types of subordinate clauses: complement, relative, and adverbial clauses (see Table 13.1 above).

Switch reference markers serve to link clauses in a way that the maintenance or switch of the subject of the following clause is indicated (§13.3 of this chapter). Tail-head linkage is another strategy used in Kakua to link clauses (§13.4). As with the switch reference markers, tail-head linkage is not only used for linking a subordinate clause to a main clause, but also as a strategy of clause combining in general, with a focus on the temporal succession of the linked elements.
Summary: A Grammar of Kakua

This thesis presents a linguistic description of Kakua, a Kakua-Nukakan language spoken in the Vaupés area of the Upper Rio Negro region in Northwest Amazonia. Speakers of Kakua live in forest settlements located in the Departamento del Vaupés in Colombia. The two main Kakua settlements are Wacará and Nuevo Pueblo. Wacará, located in between the Vaupés and the Querarí Rivers, is the most populated Kakua village, inhabited by 183 speakers (by August of 2015). Nuevo Pueblo, with around 50 speakers, is located in between the Vaupés and the Papurí Rivers. Kakua speakers total an approximate number of 230 individuals.

In this grammar I present an analysis of the linguistic data collected during my own fieldtrips between 2009 and 2015. Based on this data, the grammar presents a description of the phonology, morphology, and syntax of Kakua. This grammar contains 13 chapters. Chapter 1 gives a general overview of Kakua and its speakers, mentioning the relevant literature that has focused on Kakua, the language and its speakers. In this introductory chapter, a section is dedicated to an overview of the classification of Kakua. Chapter 2 expands on Bolaños (2010), providing a description of Kakua phonology. Chapter 3 describes the types of morphemes and wordclasses, giving a general overview of open and closed classes which are then described in detail in the following chapters. Chapters 4-7 deal with the description of noun morphology, the structure of nouns, noun classification, compounding, classifiers, possession and other elements of the noun phrase. A template of the verbal morphology is found in Chapter 8, which introduces the description of the verbal system. The detailed description of verbs is then provided in Chapters 8-10, examining verb serialization, and the tense, aspect, mood, and evidentiality distinctions that are expressed predominantly on the verb. Chapter 12, on simple clauses, gives a description of basic clause types and other types of simple clauses (e.g., declarative, interrogative, and imperative clauses). Finally, Chapter 13 contains a description of clause combining, dealing with coordination and subordination (including complement, relative and adverbial clauses).

The description of Kakua, presented in this grammar, is based on a functional-typological linguistic framework, which helps to present language-specific linguistic phenomena and to link it to the general linguistic literature.
The grammar of Kakua presents various interesting typological features from both areal and cross-linguistic perspectives, which are highlighted throughout the book. The research presented here also attempts to provide a better illustration of a little-known endangered language of Amazonia.
Samenvatting: Een grammatica van het Kakua


Mijn taalkundige beschrijving van de grammatica van het Kakua is gebaseerd op data die zijn verzameld gedurende meerdere veldwerkperiodes tussen 2009 en 2015. Gebaseerd op deze data geeft deze grammatica een beschrijving van de fonologie, de morfologie en de syntaxis van het Kakua. Deze grammatica bevat 13 hoofdstukken. In hoofdstuk 1 geeft ik een algemeen overzicht van het Kakua en de sprekers van deze taal en bespreek ik de relevante literatuur over deze taal en zijn sprekers. In dit introducerende hoofdstuk wordt ook een sectie gewijd aan de classificatie van het Kakua. Hoofdstuk 2 is een vervolg op een eerdere studie van Bolaños (2010) en bevat een beschrijving van de fonologie van het Kakua. Hoofdstuk 3 beschrijft de verschillende typen morfemen en woordsoorten, waarbij een algemeen overzicht van de open en gesloten woordklassen van het Kakua wordt gegeven, die vervolgens in meer detail in de volgende hoofdstukken worden besproken. In hoofdstuk 4 t/m 7 beschrijft ik de morfologie van het nomen, de structuur van het nomen, nominale classificatie, samenstellingen, classifiers, possessieve constructies, en andere onderdelen van de nominale constituent. Een template voor de verbale morfologie wordt gegeven in hoofdstuk 8, dat tevens het verbale systeem van het Kakua introduceert. Een gedetailleerde beschrijving van werkwoorden wordt vervolgens gegeven in hoofdstuk 8 t/m 10, waarbij serialisatie wordt besproken, alsmede de tijds-, aspects, modaliteits- en evidentialiteitsonderscheidingen die hoofdzakelijk op het werkwoord worden uitgedrukt. In hoofdstuk 12, dat over enkelvoudige zinnen gaat, beschrijf ik de basis zinstypen alsmede de zinstypen die kunnen worden onderscheiden wat betreft hun illocutie (zoals declaratieve, interrogatieve, en imperative zinnen). Tot slot wordt in hoofdstuk 13 beschreven hoe zinnen worden gecombineerd, waarbij coördinatie en subordinatie (complementatie, relatieve subordinatie en adverbiale subordinatie) aan de orde komen.

De beschrijving van het Kakua, zoals gepresenteerd in deze grammatica, maakt gebruik van een functioneel-typologisch kader, waardoor taalspecifieke fenomenen tot hun recht komen en deze in verband kunnen worden gebracht met de algemene taalkundige literatuur.

De grammatica van het Kakua bevat enkele interessante typologische kenmerken van zowel een areaal als taalvergelijkend perspectief. Deze kenmerken krijgen bijzondere nadruk in de verschillende hoofdstukken van dit proefschrift.
onderzoek dat in dit proefschrift wordt gepresenteerd heeft verder als doel een betere beschrijving te geven van een weinig onderzochte bedreigde taal uit Amazonia.
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