A GRAMMAR OF AKUNTSÚ, A TUPÍAN LANGUAGE

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This work is dedicated to Akuntsú people

*babawro oanoa pi jã ete*

Thank you!
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ABSTRACT

This dissertation presents a description of the main aspects of Akuntsú grammar, as spoken by five monolingual people who live in the Southeast region of Rondônia state, Brazil. Akuntsú people have until recently been an isolated indigenous group, now the only survivors of genocide. Akuntsú is a critically endangered language.

This study presents an analysis of the phonology and morphosyntax of the language. It takes a functional approach to describing the structures of the language and the function that each grammatical component serves. This study is based on fieldwork research carried out since 2004, where the analyses were grounded on several texts. This dissertation introduces aspects of the Akuntsú people and culture in chapter 1; In chapter 2, I describe Akuntsú phonology and relevant aspects of phonological processes found in this language; grammatical categories and word-structures are introduced in chapter 3; nouns, verbs, adjectives and adverbs, ideophones, particles and interjections are discussed in chapter 4, 5, 6 and 7; and simple clause types in chapter 8.

Typologically, Akuntsú has been revealed interesting phonological and morphological traits. The stop consonants in Akuntsú have unusual surface representations, such as a voiceless-voiced consonant cluster, which alternate intervocally and under stress assignment; the morpheme used in the related Makuráp, Tuparí and Mekéns languages (members of the Tuparán subfamily) identified as a genitive classifier to signal possession of animals is, in Akuntsú, replaced by kinship terms, as though possessed animals were now treated as sons or daughters. This lost of the genitive classifier shows that the drastic social changes they have suffered in being
reduced to five members is indeed reflected in a particular linguistic construction.

Aside from these linguistic traits, languages spoken in Rondônia state in Brazil, such as Akuntsú, have importance, both for their linguistic diversity and for their location in a region, which is claimed to be the main area of the Tupían homeland. The description of Akuntsú, makes it possible to further contribute to linguistic science, especially to the study of historical linguistics in the area.
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LIST OF ABBREVIATIONS AND SYMBOLS

- morpheme boundaries, reduplication
. syllable division
' primary stress
[ ] phonetic representation
// phonological representation
## word boundary
+ compounds
= clitic
$ syllable boundary
1 First person
2 Second person
3 Third person
ABL ablative
AG agent
ALL allative
CAUS causative
CERT certainty
COR coreferential
DAT dative
DET determinative
DEM demonstrative
DIFF diffuse
DIM diminutive
EM emphatic
ESS essive
EXCL exclusive
FOC focus
HAB habitual
HYP hypothetic
IDEO ideophone
INCL inclusive
INS instrumental
INT intensive
INTERJ interjection
ITER iterative
LOC locative
MID middle voice
NEG negation, negative
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CHAPTER 1

INTRODUCTION

1.1 Goals

The goal of this dissertation is to describe the main aspects of Akuntsú grammar, which in turn provides the material for producing a descriptive grammar. Nevertheless, the most relevant goal of this study is to avoid the loss of an otherwise undescribed language with its unique grammatical structure, associated culture and knowledge systems that can never be replaced, keys to a whole group’s identity.

In this section, background information about the Akuntsú is presented, which involves not only information directly related to them, but contextualizes the Akuntsú people in the general historical and social context of the region. Previous literature regarding the Tuparían languages is summarized in §1.2.1. In §1.2.3, historical background on the colonization of Rondônia state and the history of contact with Akuntsú is introduced, seeking to shed light on the understanding of the current situation of the Akuntsú people. In §1.2.4, their traditional geographic location is hypothesized, including discussion of their current location. In §1.2.5, a summary of some of the main cultural objects used by this group and their material heritage is given; In §1.2.6, the level of the Akuntsú’s knowledge of Brazilian Portuguese is reported.
1.2 Background information

Akuntsú is a Tupían language, highly endangered both because of its small number of speakers—five monolingual speakers—and because the speakers cannot pass their language on to another generation, mainly due to kinship taboos and their refusal to allow men from other groups to marry the youngest speaker. The youngest survivor is a woman in her 30s, with four other Akuntsú over forty, with no children and no prospects for increasing their group. In short, assuming these circumstances will not change in the future, we accept that this language is doomed to disappear.

Based on a Vaz's publication (2013), there are currently seventy Isolated Indigenous groups,¹ those not in contact with mainstream Brazilian society and whose languages are not known and have not yet been studied, and fifteen groups are listed as recently contacted, of which Akuntsú is one.

In this section, background information about Akuntsú people is presented, which involves not only information directly related to them, but the one that contextualize Akuntsú people in a general historical and social context of the region. Previous literature regarding the Tuparían languages are firstly summarized in §1.2.1; in §1.2.3, historical background on the colonization of Rondônia state and the history of contact of Akuntsú is introduced, seeking to shed light on the understanding of the current situation of Akuntsú people; in §1.2.4, it is presented an hypothesis for the traditional geographic location of them, including a presentation on their current location; In §1.2.5, a summary of some of the main objects used by this group and of their material heritage; in §1.2.6, it is reported the level of Akuntsú knowledge of Brazilian Portuguese.

¹ For the National Indian Foundation (FUNAI), the term reference is related to the information on Indigenous tribes that are officially registered by the Coordination of Isolated Indians and Indian of recent contact.
1.2.1 Previous literature

For historical documents on the Tuparían groups, Curt Nimuendajú (1925), Snethlage (1937, 1939), Rondon and Farias (1948), Lévi-Strauss (1948, 1955 [2004]) and Caspar (1957, 1958, 1975) provided the first information on the Tuparían subfamily, regarding their geographic, linguistic and anthropological identification.

In roughly 1934, Franz Caspar registered the location of some indigenous peoples of this area on a map, with a detailed study of the Tuperí people. In 1949, Hanke gathered data from Mekéns located on a tributary of the Guaporé River. These data were analyzed in cooperation with Swadesh and Rodrigues, and it served as the basis for the first comparative study that sought to classify Mekéns (Hanke, Swadesh, and Rodrigues 1958). In 1934, Snethlage, after his trip to the Makuráp area, traveled on to other indigenous areas, such as the Sierra Allianza, rising to the Rio Branco. During his journey, he met with Wayoró (Ajurú) people, reporting that they were reduced to a small group who had already been absorbed into the Makuráp culture. According to Snethlage, the Wayoró language was a mixture of Makuráp with other Tupían languages. In 1913, General Cândido Rondon recorded a list of 117 words from Kepkiriwat (now extinct), collected from the Kepkiriwat people on the Baron Melgaço or Maquépiaquê River. In 1927, the ethnographer João Barbosa de Faria collected another Kepkiriwat vocabulary list with a larger number of words (Rondon and Farias 1948).

Lévi-Strauss (1948) was the first who mentioned the cultural similarities among the Indigenous people in Rondônia, especially Indigenous group located close to the Guaporé River. He divided the Guaporé cultural complex into two parts: the Chapacura area, to the west of the Rio Branco, and the Tupían area, in the eastern part. The Guaporé region
together with the Mamoré region is considered one of the most diverse linguistic regions, which includes different linguistic features found not only in Tupían languages but also in language isolates of the area (Crevels and van der Voort 2008).

Regarding the material culture of the community located on the right bank of the Guaporé River (the earlier location of the Akuntsú people), Maldi (1991) reported that many cultural elements of these communities are similar and others are identical. The preparation of a kind of basket called marico, baskets of various sizes from tucum-fiber, is one of the elements in common among the people of this region. Other items are also similar, such as manioc cultivation, the construction of round houses, and the consumption of chicha daily or on ceremonial occasions. These characteristics led Maldi to call this area "the Marico Complex," including not only speakers of the Tupian languages there, but also speakers of isolated languages as well.

However, regarding Akuntsú itself, the first information officially appeared only in 1995, when the first contact with the Omerê groups was made by FUNAI.²

1.2.2 Historical context and history of contact.

The Akuntsú live in Rondônia state, Brazil. Based on their story, a particular area of this state was their homeland, a place they were forced to leave years ago (details in §1.2.3). As for the understanding of their current situation, including the reduced number of speakers and how they came up living near by the Omerê river (an affluent of the left bank of the Corumbiara River in the southeast of Rondônia),³ it is important to describe the colonization

² Please, see reports written by Algayer and Santos (FUNAI's archive) and by Valadão (1996).
³ See §1.2.4 for a discussion of their possible traditional location.
of Rondônia. Based on historical information, economic and social activities from non-Indians took place in Rondônia, specially the one involving the Amazon rubber boom, the large extraction of latex from rubber trees, which occurred from 1879 to the end of the second World War.

The rubber boom brought many Europeans and Brazilian people from other states to Rondônia, seeking to work on the extraction and commercialization of the rubber. During this period of rubber extraction, the Indigenous people were the one who suffered the biggest effects of the expansion of the Brazilian economy. The Indigenous groups were drastically reduced either by illness brought by outsiders or by the consequences of slavery and intensive abuses (since they were forced to work tapping the rubber out of the trees). By the end of the rubber boom, the Indigenous population was extremely reduced and many of the survivors lost their identity, shifting to Brazilian language and culture.

After the rubber boom, a new period started in Rondônia when the government encouraged colonization of this state by inciting a project of quick settlement of the State and by building the BR 364 railroad, which brought occupation of the region. As a consequence, the Indigenous people who survived from the rubber boom period were intensively affected—murdered or incorporated to the economic system of the State. With the migratory flow this caused, people started to encroach upon the indigenous lands and deforesting huge areas, seeking to extract wood (to sell) and to create conditions for cattle breeding, both very lucrative.

The settlement of one of Akuntsú’s current neighboring lands—Corumbiara township—took place in about 1980, when the government distributed lands to be

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4 Few Indigenous people were able to hide in the forest, avoiding the railroad of the rubber.
colonized, through a project called *NUAR Nova Esperança*. By that time, there were extensive areas of ranges and farms around that city and deforested areas.

In 1984, the men who worked for the Yvипитã farm (a farm currently located near Akuntsú territory) communicated to the National Indian Foundation (FUNAI) about their first contact with Indigenous groups in the nearby rainforest: Indigenous people who had shot arrows in their direction, for which reason the men asked for FUNAI's protection to keep doing their work safely. However, this news of Isolated Indigenous group there was not a new; in 1976, Nambiquara Indigenous people had already confirmed the presence of uncontacted Indigenous group on the left bank of Corumbiara River. In 1985, Marcelo dos Santos started the first expedition to search for clues of Indigenous people in the location previously mentioned by the men who worked for the Yvипитã farm. At the time of the expedition, dos Santos and his team had encountered villages and gardens destroyed by farm tractors on a territory neighboring the Yvипитã farm, who kept their men armed with guns to avoid the presence of Indigenous people. Soon after, FUNAI requested an official intervention in the farm area by the Brazilian Ministry of Justice, due to evidence of the Indigenous’ presence there. In April of 1986, the government enacted an official intervention of the area; however, in December of 1986, the Government canceled the intervention and gave a preliminary injunction in favor of the farmers/cattle ranchers. However, Marcelo dos Santos and his team, including Altair Algayer, kept secret their investigation to confirm the presence of Isolated Indigenous group in this area—the investigation was conducted with no support from the Brazilian Government. In 1995, in

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5 Based on Leão’s report (1995).

6 Based on Santos’ report (1985).
another expedition to the same area, and now working together with a journalist from the newspaper *O Estado de São Paulo* and the Indigenist cinematographer, Vincent Carelli, they finally made contact with the first isolated Indigenous group who had lived in that area, the Kanoê, a group with only four survivors at that time. By that time, cattle ranchers had destroyed most of the rainforest where vestiges of indigenous people were previously found.

A small part of the report describing the first contact with the Kanoê group is reproduced here:

> ...Nossa equipe multidisciplinar andou quatro dias pela mata e três na Toyota. Apesar de curta, sem dúvida essa foi a mais importante expedição realizada pela F.C.Guaporé neste ano de 1995, pois no dia 03/09/95 fizemos contato com o grupo indígena que procurávamos. Encontramos dois índios na maloca, um homem de aproximadamente 20 anos e uma mulher de 25... Foram muito corajosos em nos convidar a entrar na aldeia. Concluímos que mais pessoas residiam na maloca, pois ouvimos barulho na mata...os dois índios falavam apenas sua própria língua...

[...Our multidisciplinary team walked for four days through the forest and three days by Toyota. Even though it was a short expedition, it was, without doubt, the most important expedition undertaken by the Guaporé team in this year of 1995, because on September 3rd of 1995 we made contact with the Indigenous group that we were looking for. We found two Indians inside their hut, a man approximately 20 years old and a woman 25... They were very courageous by inviting us to enter the village. We concluded that more people lived in the hut, since we heard noises coming from the forest... the two Indians spoke only their language...] (Algayer and Santos' report - September, 1995).

The Kanoê group (with four monolingual Kanoê speakers by the time of the contact—now reduced to only Txiramanty (a woman shaman), Purá [Txiramanty's brother] and Buquá [Txiramanty's son])—helped FUNAI contact another group located in the same

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8 There are more detailed information on Akuntsú first contact and history of the region. See, for example, the documentary produced by Vicent Carelli (2009). *Corumbiara: they shoot Indians, don't they?*. Vídeo nas Aldeias.

9 There are more Kanoê who lives close to the tributaries of Guaporé River; however, the Kanoê of the Omerê are the only ones who are still monolingual speakers. In 2004, there were only three Kanoê of the Guaporé
region, the Akuntsú people, where both tribes are survivors of the genocide committed by the colonizers and settlers of the southeastern region of Rondônia during the last three decades of the 20th century (Valadão 1996). This second group, with seven survivors, which the Kanoê called *akutsu*—as the Kanoê have referred to the Tupían groups of the Omerê since the beginning of the contact—was contacted one month after FUNAI had contacted the Kanoê of the Omerê. The name is a Kwazá word, *akucũ*, meaning ‘outsider Indians’ (Bacelar 2004:298). By the time the Akuntsú were contacted by FUNAI, there were a total of only seven people out of a larger population in the past (as told by the Akuntsú). In 1999, one of the children passed away, victim of a tree that fell down on their huts where they were sleeping during a day of terrible storms; these storms also caused a serious injury to Konibú’s leg, and he had to be taken out of the rainforest for the first time in order to have emergency surgery. The accident affected his leg movements, where a platinum disk had to be inserted. In 2009, the oldest woman in her 80s, called Ururu, passed away due to a severe cold. Colds are very serious diseases for them; they have only been building resistance to this kind of illness during the years since contact.

1.2.3 Current situation

Currently, there are three women, two men, and no children. Among the women, there are Pugapía (or Aramira), who is in her 60s, and her two daughters, Aiga (also named TJaruj or Nanoj) in her 40s and Enotej (or Kani) in her 30s. Pupák and Konibú (or Kʷatin atjo) are the only male survivors. Konibú is the oldest Akuntsú, in his 80s, and Pupák is in his 40s. They are all part of the same consanguineal family, in which Pugapia is Pupák’s who “maintain the language alive in their memories” (...que mantêm a língua viva na memória.) (Bacelar 2004:33).
sister and Konibú is uncle to both Pugapía and Pupák. After the massacre, Konibú explains that he had to take Pugapía as his wife, because he didn’t have a woman anymore, and even though they knew it would be taboo (in their patrilineal kinship system), they both had no choice; especially Pugapía, who urgently needed a man to hunt for her.

Akuntsú and Kanoê people have been sharing the same territory for a while. The Akuntsú relate that they have known the Kanoê tribe since the time they moved to the Omerê River; according to Konibú, one of the most important things about this meeting was to know Txiramanty, whose shamanic power was/is very precious for the Akuntsú people. The only thing that both tribes have in common is the fact that they have shared the same territory for years. Their language and culture are totally unrelated¹⁰ and their social relations nowadays are peaceful, though they had had difficult moments in the past. According to previous reports from FUNAI staff, after the contact, there were instances where the Kanoê people wanted to control the Akuntsú people, especially the Kanoê woman, Waymoró. However, despite their differences, there were also moments where the Kanoê and Akuntsú have lived in harmony, and there were even promises of future inter-marriage; unfortunately, all such attempts were always frustrated. All these differences resulted in the death of Waymoró (a Kanoê woman); in 1997 the Akuntsú people killed her.

Txiramanty (the Kanoê woman and shaman of the group) got pregnant (her second pregnancy—her first son, Operá, died in 2003). Her son, Buquá, is Konibú’s son (according to Konibú, of the Akuntsú group). The boy has been learning Portuguese and Akuntsú, though his primary language is Kanoê. Txiramanty raised him alone in her village, and they had limited contact with the Akuntsú people during that time. Buquá’s Akuntsú language knowledge has been improving over approximately the last four years; nowadays he has a

¹⁰ Kanoê is a language isolate, while Akuntsú is a Tupían language.
good level of understanding in practical situations and he has been developing his level of speech.

1.2.4 Current and traditional geographic location

Rondônia is a state located in the north part of Brazil, surrounded by the Alto Madeira River basin (South Amazonas state) to the north, by Mato Grosso state to the east, and the Bolivian lowlands to the south and west (see map 1.1 below).

Rondônia is considered the region with the highest concentration of Tupían linguistic subfamilies and with great cultural diversity, probably the most diverse region within South America. The languages of the Tupían family\(^{11}\) have a peculiar geographic distribution (Rodrigues 2007a): five of its subfamilies—Puruborá, Ramaráma, Mondê, Tuparí and Arikém—are concentrated in the state of Rondônia. For the Tupí-Guaranían family, only three of the many Tupí-Guaranían languages are found in this state. Besides the presence of Tupían language and society in Rondônia and adjacent areas, there are also isolate languages, those which are not affiliated with any other known language; and there are isolated (often called “uncontacted”) societies, those not in contact with the Brazilian society who, due to their own decisions, remain uncontacted to the present day. Therefore, all these characteristics make the area of Rondônia and its adjacent regions in need of much future research to shed light on the prehistory of early Tupían groups.

\(^{11}\) For more information on the genetic classification of languages and the genetic classification of Tupían family see Campbell, Lyle and William J. Poser (2008), Campbell (2012), Rodrigues (1955) and Rodrigues and Cabral (2012).
Map 1.1 - Map of states and rivers located in the north side of Brazil. RO is the abbreviation of Rondônia (http://www2.transportes.gov.br/bit/04-hidro/3-rios-terminais/rios/00-Figuras/Iguapore.htm, 10-2012).

Regarding to the river location, the largest concentration of the Tupían linguistic subfamilies is close to the tributaries of the Guaporé-Madeira and Aripuanã Rivers (Rodrigues 2007a). Only the Arikém subfamily is situated outside of this area, on the tributaries of the Madeira River basin. Due to the high concentration of Tupían speakers in that area, Rodrigues (1958) and Urban (1998 [1992]) proposed that somewhere between Guaporé-Madeira and Aripuanã River would be the homeland of early Tupían speakers; and according to linguistic (Rodrigues 1958; Urban 1998 [1992]) and archaeological (Noelli
1996, 1998) studies, their dispersion may have begun (about) 5000 years BP. As described earlier, the Akuntsú had been attempting to escape the intense deforestation of their ancestral lands at the hands of ranchers and colonizers. They were until recently an isolated indigenous group, now the only survivors of a recent genocidal massacre. The few surviving Akuntsú took refuge near the Omerê River, where they were contacted. Akuntsú have been living on one side of the bank of the Omerê River, while the Kanoê people have been living on the other side of the bank. In the area between these two groups, in an effort to help to protect the few survivors from outside influences, FUNAI built a house on Akuntsú lands, and prohibited unauthorized people from going there without official permission. Map 1.2 shows the current location of Akuntsú people in the red square, and the other green areas represent the other Indigenous areas located in Rondônia state.

Akuntsú tell stories about their origin, where they came from and what happened to them before finally taking refuge in the highlands of the Omerê River (their current location). It is difficult to connect the descriptions given by the Akuntsú with current data from the hydrography of the region, mostly because the directions that the Indigenous group refers to are always connected to the environment. For example, they say that to get to the river _ikítʃaro_ one must head northwest of the village, and walk until one finds many Brazil nut trees—nowadays the path that the Akuntsú refers to, to the lands that they are familiar with, are reduced to cattle ranches.
Map 1.2 - Map of the state of Rondônia, Brazil, showing the Indigenous area found in this state. Akuntsú area is indicated by the square located in the lower part of the map (courtesy of FUNAI, CGIIRC, Frente de Contato Etno-Ambiental Guaporé).

In 1996, during the first meeting with Passaká (a man of Mekéns ethnicity), Konibú explained how he and his family had survived outsider attacks, and how their tribe was killed and some of the bodies have disappeared. Passaká, in an attempting of translating Konibú’s story, told that it was in the region of \textit{ikitfaro} that "Konibú began to hear the clearcutting of the forest" and then "they moved to Akuntsú's other village near the \textit{ikitaren} river". Based on Konibú's later stories, it is possible to infer that \textit{ikitaren} and \textit{ikitfaro} are confluents; the river mouth of the \textit{ikitfaro} flows into the Corumbiara River (called \textit{betia} in

\begin{itemize}
\item[$12$] Mekéns and Akuntsú are related languages and so Passaká was able to understand part of Konibú's narrative.
\item[$13$] This original conversation was recorded by Vicent Carelli. These stories are also confirmed in other recordings in which I talk with them about the rivers and their tributaries.
\item[$14$] According to oral histories from Mr. Pedro Kampé, member of an ethnic group linguistically related to Akuntsú, the river \textit{ikitare} is also the name they call the head of the Tanaru river. Thus the river \textit{ikitare} mentioned by the Akuntsú is probably the same Tanaru river referred to by other related tribes.
\end{itemize}
Akuntsú). Besides these two rivers, the Akuntsú give the direction of their traditional location by describing, river by river, up to the ɨkitaren and ɨkitʃaro, which has allowed the re-creation of their journey from their traditional location to their current location in the Omerê River. The most important rivers mentioned by them are Moũ, Kawra ki, ıkwa to ki, Kwitap ki, Twarap ki, and ɨwai ki. Based on the tentative reconstruction, Algayer and I have mapped their possible traditional location (in a forthcoming work).

According to Konibú’s oral narratives, Akuntsú people lived for a long time in the area on the banks of the ɨkitaren and ɨkitʃaro. Between these two rivers, they built longhouses and they had wide gardens, with many crops. The plantation was vast, with plenty of maize, banana, peanuts, manioc, papaya, and sweet potatoes. However, it all ended after the attacks—they lost most of the seeds, and after that they were not able to cultivate enough crops, as they have done before. There are indications that the attacks came first from the ɨkitʃaro River, which marked the beginning of Akuntsú expansion close to the shores of the Corumbiara River, and finally to the shores of Omerê River (actual location of the group). He states that it was when they lived near those rivers that they were shot (each man has scars from gunshot wounds). The Akuntsú report that there were a great number of white people all over the land, and that they could also see that near the shores of the Corumbiara the white people had built an airplane landing strip.

Once they took refuge on the Omerê tributaries (in the highlands), they began to live with the Kanoẽ people. About the meeting with the Kanoẽ, Konibú always mentions the strength of the woman shaman who has great power. He also talks about the youngest Akuntsú birth, Enotej, who was born next to the headwaters of the ɨkipiton (tributary of the Omerê).
A question worth answering is this: how does the story of the Akuntsú and their traditional territory fit into the general findings about the original location of Tuparían peoples? Based on the facts described above, it is possible to attempt to draw the trajectory of the Akuntsú, and propose that they came traditionally from the perimeter situated near the lower headwaters of the river Tanaru up to the Corumbiara River. Thus, the regions near the lower headwaters of the river Tanaru, up to the Corumbiara River, are the known territories and areas exploited by the Akuntsú in the past.

The homeland of the Proto-Tuparían speakers is assumed to be the central area of the Pimenta Bueno River (Miller 2009). According to archaeological indications, the Proto-Tuparían began to spread southward from their homeland by approximately 2900 years ago, while the Proto-Tupí-Guaraníans began their dispersion early on, about 2000 years BP. Two of the Tuparían groups were described in earlier reports as being near the Pimenta Bueno River, namely the Kepikiriwát and Tuparí—the literature reports that they were there between 1934 and 1948. Makuráp, Wayoró (Ajurú) and Mekéns were located a little further away from this region. Historical data show that during the first cycle of rubber extraction, the Makuráp were concentrated between the headwaters of the Rio Branco and on both banks of the upper reaches of the Colorado River. The Wayoró were also along the upper reaches of the Colorado River, closer to its headwaters. As for the Mekéns, historical data on their location report that they traditionally lived near the Guaporé River and its tributaries.

1.2.5 Material culture

In their village, there are two huts; Konibú and the three women live in one of these
huts, and in the other one lived Ururu (who passed away) and her son Pupák. Now, Pupák lives alone in his hut; his sister, Pugapía, helps him with cooking and with other activities designated as pertaining to women, such as preparing chicha (fermented drink) and gathering.

Their huts are built of wood poles and covered with paxiúba leaves (a palm tree species, of the Arecáceas family). The men’s main activity is hunting and fishing. They have three types of arrow points made of wood, where each one is used to kill different kinds of animals (see one of the arrow types and other illustrations related to Akuntsú material culture in Appendix C). Bone points are not common. The other end of the arrow is decorated with feathers tied with black or red lines made of tucum fiber¹⁵ (nowadays they like to use cotton strings). Currently, fishing is done with lines and hooks; however, in the dry season, the women tend to prefer the traditional practice of fishing, which consists of sliding palm tree bark under the fish (usually done in a shallow stream) and throwing the fish out of the water and then killing them when they are on the ground—they kill them with their hands or machetes.

In the dry season, they are also responsible for the preparation of their fields. All the Akuntsú, including the women, clear and plant their fields. The field needs to be big enough to provide food for the entire year, which means that dry season is synonymous with hard and difficult work for the Akuntsú.

In their garden, they mainly cultivate manioc, potatoes, bananas, papayas, corn, peanuts and yams. The Akuntsú also like to gather grubs; they usually eat them toasted, and they also feed raw grubs to their pets. Among their other activities, there is also the

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¹⁵ Tucum is a strong fiber from the young leaves of a Brazilian palm (Astrocaryum vulgare), used for cordage, bowstrings, etc.
manufacture of maricos (traditional baskets made with tucum fiber), the preparation of fermented drinks, and the preparation of tobacco for shamanistic purposes.

Regarding their material culture, the Akuntsú make necklaces from seeds and river shells. All of them wear necklaces; the men also like to wear their necklace draped diagonally across their body. The more necklaces they wear, the more they feel protected against evil spirits. The Akuntsú people have their upper and lower lip pierced, where they wear a small wooden labret, with the exception of Aiga (Tʃaruj) and Pupák, who have only the lower lip pierced. In addition to their pierced lips, all of them have pierced the nasal septum, where they also wear a small wooden plug or stick through it. They also wear bracelets and anklets made of cotton. Sometimes, they hang bones from different animals on their bracelets.

Akuntsú also cultivate annatto (Bixa orellana) and tobacco. As described in detail in Aragon (2008:17-18), the process of annatto preparation (a yellowish-red dye/food coloring made from the pulp around the seeds of annatto tree in tropical areas of the Americas) is usually done in the dry season, and consists of several steps before getting the right consistency to be used in their hair. Additionally, they also use genipap juice to paint their bodies. However, the Akuntsú people have rarely produced it; it has been only documented a few times after contact.

Shamanism has a symbolic significance in their culture. They believe that it is through shamanism that they talk to the spirits, and ask them for protection and cures for themselves from unexpected diseases.
1.2.6 Language status

After 1995, the Kanoê people (Indigenous group who share the same Indigenous Area with the Akuntsú) were the ones who had more daily contact with members of FUNAI. As a consequence, FUNAI staff learned some Kanoê words. The Akuntsú, then, began to learn and use Kanoê and Portuguese words to request some essential material needs, as soon as they realized that they could be understood in that way. However, the knowledge that both FUNAI and the Akuntsú have of Kanoê is restricted to words for some animals (pig, some species of birds and monkeys), for ‘sun,’ ‘moon’ and the verb ‘to sleep,’ ‘to see’ and ‘to hunt’ (without the use of verbal inflection or any other type of verbal morphology that is obligatory in Kanoê verbs). The Akuntsú people’s knowledge of Portuguese words is limited to: ‘manioc,’ ‘machete,’ ‘stick,’ ‘cold,’ ‘rice’ and a few other terms related to agricultural tools. This means that Akuntsú are not able to build any kind of sentence either in Kanoê or in Portuguese; thus communication with outsiders, when it occurs, is very restricted and limited to gestures mixed with ideophones and onomatopoeic creations.

1.3 Genetic affiliation and grammatical overview

This section gives a brief discussion on the genetic affiliation of Akuntsú and provides a survey of the main typological features found in this language.

1.3.1 Akuntsú in the Tuparían subfamily

The term Tupían “stock” (family) was first used by Rodrigues (1955) to refer to a linguistic family which included the Tupí-Guaraní subfamily and other smaller and lesser-
known subfamilies. In 1986, Rodrigues revised the Tupían stock, including nine subfamilies: Awetí, Mawé, Jurúna, Mundurukú, Arikém, Tuparí, Mondé, Ramaráma, and Puruborá. The recently revised Tupían family is divided into two main branches: Western and Eastern (Cabral and Rodrigues 2001, Dietrich 2010a, Rodrigues and Cabral 2012), where Akuntsú belongs to Tuparían, a subfamily of the Eastern branch.

**Figure 1.1** The revised Tupían family tree, with two main branches (adapted from Aragon 2008 *apud* Cabral and Rodrigues 2001).

With respect to the genetic classification of Akuntsú, this language is classified as a Tupían language, member of the Tuparían subfamily (Gabas 1995, 2005; Cabral and Aragon 2004a, 2005). Besides Akuntsú, six other languages (based on the table proposed in Rodrigues and Cabral (2012)) are classified as members of the Tuparían subfamily: Tuparí, Makuráp, Mekéns (Sakirabiat), Wajoró (Ajurú), Kepikiriwat (extinct) and Waratégaya (Amniapé, also extinct).
TUPARÍAN SUBFAMILY

1.1 Tuparí, BR-Ro
1.2 †Kepkiriwát (Quepiquiriuate), BR, Ro
1.3 Makuráp (Macurap, Macurape), BR, Ro
1.4 Mekéns (Mekém, Sakurabiat, Sakyribiat), BR-Ro
1.5 Akuntsú (Akunsú) – BR, Ro
1.6 †Waratógaya (Amniapé), BR-Ro
1.7 Wayoró (Wayuru, Ayurú, Ajurú), BR-Ro

Table 1.1 Tuparían subfamily, adapted from Rodrigues and Cabral (2012:497).

In a recent comparative study,\(^\text{16}\) it was posited that, based on lexicostatistic comparison, "Akuntsú and Mekéns are closer to each other than any of the other languages, sharing a cognate rate of 79%," whereas Akuntsú shares a rate of 71% with Wayoró, a rate of 66% with Tuparí, and 51% with Makuráp (Nogueira and Galucio (2011:9)).

1.3.2 A survey of Akuntsú typological features

Phonologically, Akuntsú has the syllable structure pattern of (C)V(C). In its consonantal inventory there is an underlying /tʃ/, but not /s/ and /h/. Among the consonants, /ŋ/ cannot occur syllable-initially, while only nasals, glottal, and unreleased stops can occur finally. There are 5 underlying oral vowels and 5 underlying nasal vowels.\(^\text{17}\)

Morphologically, Akuntsú is an agglutinative language (although not highly so), with some degree of synthesis. It is mostly a suffixing language. Akuntsú has two major open word classes: nouns and verbs. Adjectives and adverbs are considered small open word

\(^{16}\) For a comparative study of the Tuparían subfamily, see also Moore and Galucio’s (1994) study.

\(^{17}\) See appendix A for a brief survey of phonological similarities and differences found among Tuparían languages.
classes, and their status is subject to interpretation and requires careful attention. There are also closed word classes of quantifiers/numerals, demonstratives/deictics, particles and interjections. Nouns can bear derivational and inflectional morphology. The morphemes that code functional information on nouns include, for example: (i) locatives, (ii) datives, (iii) essives/translatives, (v) instrumentals and (iv) inessives. The derivational morphology includes, but is not limited to, morphemes that signal the diminutive and augmentative.

Word formation also includes compounding and reduplication. Verbs are divided into two main classes: intransitive and transitive. There are no overt copulas. Derivational verbal morphemes include, among others, valence-changing morphemes signaling (i) antipassives and (ii) causatives. Core arguments of the verbs are either nouns or are coded by personal pronominal clitics. There is also a subclass of auxiliary verbs and directional morphemes.

Negation is either expressed by particle or/and by suffix. The negative suffix occurs with nominal, adjectival and verbal roots.

Akuntsú is predominantly head-final. Objects precede verbs. The most frequent word order is SOV. The basic clausal constituents may be described basically as

\[(\text{PRONOMINAL CLITICS}) + \text{NOUNS} + (\text{NOMINAL MORPHOLOGY}) + (\text{OBJECT}) + (\text{VERBAL MORPHOLOGY}) + \text{VERB} + (\text{VERBAL MORPHOLOGY}) + (\text{AUXILIARY})]\]. Clause combining mainly involves coordination, subordination, and complementation. Coordination is done by the simple juxtaposition of clauses; complementation is usually in the form of nominalizations.

1.4 Methodology and presentation

This section provides observations on fieldwork in the monolingual situation, a brief discussion on the methodology employed in the fieldwork, as well as discussion of both
documentation and description, focused on: (a) the main points related to the best-practices recommendations for language documentation; (b) the different approaches to language documentation and language description, showing the methods that are more effective in the Akuntsú case, and explaining the reasons that some of them can be applied in a monolingual setting and others not. The discussion of the methodology applied in the fieldwork is based on previous literature on fieldwork generally and on fieldwork in a monolingual setting, citing especially Everett (2001, 2004), Everett and Sakel (2012) and Bowern (2008).

The last subsection provides a presentation of this study and its goals.

1.4.1 Notes on fieldwork with monolinguals

According to the best-practice recommendations for documenting languages, there are some central topics that must be focused on when one is dealing with language documentation (Himmelmann (2006:15). As these topics are relevant to the case of documenting Akuntsú (some more than others), I take up each point from both Himmelmann's point of view and from other authors' views.

(1) **Focus on primary data:** primary data is the main subject of documentary linguistics; it means a "corpus of recordings of observable linguistic behavior and metalinguistic knowledge" (Himmelmann 2006:10). According to Lehman (2001:5), "the primary purpose of language documentation is to represent the language for those who do not have direct access to the language itself," and the first step to achieve it is through the collection of primary data. One issue surrounding primary data is whether “primary data” means a corpus of natural discourse (only), or whether it should also consist of elicited data. For Himmelmann (2012:202) "elicitation (broadly understood) is necessarily a part of any
documentation project (...)", and, as such, there is no reason to not use elicited material as part of primary data. Note that elicitation is extremely difficult in a monolingual setting, and for some subjects that the linguist may want to investigate, I would say that elicitation is not possible at all. However, note that for some morphosyntactic topics, elicitation is not the most effective approach for gathering quality data among monolingual speakers: in most cases, the speakers will not agree with possible answers or will not understand some questions, mainly because they are not experiencing the relevant situation at the moment of the elicitation.

(2) Explicit Concern for Accountability: primary data needs to be clearly identified with metadata (details of the recording context), to make further analysis possible. The needs for metadata have been described in much literature including Good (2002), Aristar-Dry (2004), Nathan and Austin (2004), among others. Nathan and Austin (2004) discuss techniques for aligning metadata in language documentation materials, especially in digital audio and video. They explain that "the collection of recordings of authentic linguistic events" needs to be accompanied by "thick metadata," which includes the creation of "transcriptions, annotations, and other commentary and analysis" in order to maintain the accessibility and the use of digital electronic archives (Nathan and Austin 2004:184). Woodbury (2010:13) explains that "material needs to be transparent, preservable, ethical and portable," which means that for the purpose of transparency, primary data needs to be accompanied by careful annotation.

In a monolingual context, documentation covers recording primary data in a way that involves not only primary data collection, but also a careful metadata description, which

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18 The idea of 'thick' descriptions appears in Clifford Geertz (1973) when he talks about 'thick' versus 'thin' descriptions of cultures.
needs to be done immediately after the recording of the speech event in order to describe the
details accurately, including gestures used, position of speaker, etc. In addition, the
transcriptions also need to be followed by a careful linguistic analysis, which helps the
researcher to come up with the best gloss. It is important to do transcriptions at the end of
the day while things are fresh in one’s mind. Moreover, it will be extremely relevant to
decide on what still needs to be documented in terms of linguistic structure and primary data
while one is undertaking the fieldwork.

(3) CONCERN FOR LONG-TERM STORAGE AND PRESERVATION OF PRIMARY DATA: primary data
needs to be archived to ensure the longevity of the material. Nowadays, there are a number
of archives concerned with maintaining as well as possible the longevity of data.

(4) WORK IN INTERDISCIPLINARY TEAMS: it is important to have multidisciplinary researchers
working on language documentation. In this way, it is possible to access different
perspectives from different disciplines, which may include (but not limited to)
anthropology, biology and archaeology. Calling upon the different backgrounds of different
researchers can be a good strategy for linguists to improve the outcomes of their linguistic
documentation projects.

(5) CLOSE COOPERATION WITH AND DIRECT INVOLVEMENT OF THE SPEECH COMMUNITY: it is
important to have the involvement of the community. This involvement may take two
forms: (a) helping the linguist with the language documentation project (as co-researcher),
or (b) being responsible for documenting his/her own culture and language — in this case
the linguist is encouraged to train the speakers to produce quality materials. In a
monolingual setting with only five people, it is necessary to have the speakers’ cooperation
to document their language, and their direct involvement is considered more than relevant.
However, it is not precisely the direct involvement intended in the sense cited above, i.e. being responsible for documenting their own language. The direct involvement takes the form of their cooperation and awareness that teaching someone else their language and culture is worth doing for the preservation of their culture and language — in the sense that their language and culture will be known and documented.

Another relevant topic to highlight is the discussion of whether or not language documentation needs to take place in connection with language description and fuller analysis. According to some scholars, documentary linguistics is primarily concerned with recording as much audio and video as possible from the speakers of the target language and adequately archiving data for future analysis, leaving analyses to be carried out later. Other scholars, on the other hand, insist that documentary linguists need to be concerned with gathering primary data, translating them and providing an adequate linguistic analysis of the structures of the language. The fact is that, without a doubt, "the dividing line between documentation and description is not sharp" (Lehmann 2001:8). Himmelmann (2012) provides the following definition for language documentation and language description: (a) *language documentation* is concerned with "primary data and their interrelationships, including issues such as the best ways for capturing and archiving raw data, transcription, native speaker translation, etc.," and (b) *language description* deals "with the question of how valid descriptive generalizations can be derived from a set of primary data" (Himmelmann 2012:199). Even though documentary and descriptive linguistics are defined differently, Himmelmann emphasizes that this separation is mainly theoretical, and that in practice it is hard to split them, especially because documentation and description are connected in such a way that they complement each other. It is even harder to separate
language documentation from description when language documentation involves monolingual speakers.

Another point of discussion raised in the field of documentary linguistics regards the quality and quantity of the data and metadata, i.e., the documentary corpus. The question raised is: when should language documentation be considered complete? Is it complete when one has enough quality materials, or when one has collected a sufficient quantity of corpus materials? According to Austin (2006), the materials behind an "adequate documentation" should contain: all the basic phonology, morphology, and syntactic constructions, a lexicon that covers the basic vocabulary, and different texts in a variety range of genres and registers; or document a language until nothing new shows up. From the point of view of language documentation in a monolingual situation, in order to have good quality documented materials that contain instances of different structural aspects of the language and a variety of cultural manifestations, the researcher almost always must wait for the occurrence of spontaneous data which expresses not only the linguistic structure of the language, but narratives about their beliefs and culture reality. It is essential to spend as much time as possible among the speakers, participating in their main activities, because in that way, spontaneous data is much likely to occur than in hours of elicitation (when that is possible). For example, a breakthrough in documenting Akuntsú came in 2007 when they began to invite me to go to the jungle with them, to help the women to pick food from an old garden far away from their village, and to look for special seasonal fruits in the jungle. In that way, the morphology and syntax of the language started to show up more frequently than before, i.e., I began to learn and record utterances on specific topics from natural
events. I finally started to get a good grasp of the subject matter in the recordings, and to become more familiar with both the language and culture.

In terms of quantity of data in a monolingual situation, it was extremely easy to gather natural narratives and conversations (high quantity of primary data) in my work with the Akuntsú. However, the subject of the recordings needs to be monitored by the researcher, which is not always an easy task—i.e., if the researcher starts to record natural discourse randomly, it will be very hard to keep track of the content of the data; consequentially, metadata will be lost, and there will be no chance for the linguist afterwards to create a detailed transcription of the corpus gathered. With regard to some methods used in the Akuntsú case, to avoid losing the quality of the data (in terms of metadata and linguistic description), most of the audio and video are concentrated on the moment of their activity, recording explanations and themes related to some of their cultural activities, for example step-by-step recordings of the preparation of their fermented drink, manufacture of traditional baskets made with tucum fibers, and descriptions of common activities, such as tending their garden, preparation of their tobacco and shamanism, preparation of traditional food, and extraction of nut oil. This has been a good strategy to get both quantity and quality in the documentation, mostly because the context helps to control the data collected; after careful transcriptions are done, it will be possible to test the data (the gloss and analyses) the next time that they do the same activity (which occurs more than two times a week, depending on the season and type of activity).

In addition, it is important to point out that the literal and complete translations of conversations and texts are very challenging when previously non-encountered topics with many new lexemes are the main subject matter of a recording. In a monolingual situation,
the annotation of data (including morpheme-by-morpheme analysis) is a slow process, mostly because of the difficulty of achieving it without the direct input of native speakers of the language. For this reason, the task of providing glosses for the grammatical meaning of each morpheme requires careful reflection. It should be noted that building up a lexical database (an ongoing project) in monolingual research means that some lexical items in these texts have just not come up before, and determining their meaning without the help of native speakers needs time and dedication.

Another issue in documenting an endangered language, on the one hand, and documenting a language spoken by monolingual speakers, on the other, involves the changes which occur over time. From the first fieldwork undertaken in 2004 until now there have been a lot of changes, including the fact that the speakers are getting old, and are not as 'isolated' as before. Since 2008, the Akuntsú have begun to get colds often. Colds affect the Akuntsú not only physically but also psychologically; they stop their normal cultural activities when they get colds (even for weak colds), e.g. the urucu extraction, fermented drink preparation, and practice of shamanism; they do only the necessary things. In October 2009, the oldest woman in her 80s, called Ururu or ‘cotton,’ passed away. After this episode, the five remaining Akuntsú were affected by their loss for months, especially Ururu’s son. After that, all of them built a house near FUNAI’s house in order to recover from a terrible cold that they got, especially Konibú, who became very gravely ill with a serious pulmonary infection (pneumonia). In addition, people change as they age, and the Akuntsú do not have the same energy to do some of their regular ceremonies as before.

Each monolingual community differs in many aspects (culturally and socially speaking), which plays an important role in choosing the appropriate methodology to be
applied within the particular monolingual community. Some noteworthy points to be made here for monolingual settings in general is that one needs to be conscious that unplanned spontaneous speech will occur all the time, and if one knows how to control the quality of this material, through careful notes and detailed description of the context, it might be considered a good quality linguistic corpus. There is also the necessity to observe the language, as well as to apply methods to promote situations that one will be able to learn from—for example, asking some of the speakers to help them in some activities and then learning from daily contact; or just being aware that any gesture or any unexpected situation will be excellent to connect documentation and language analysis. For instance, the sound of a jaguar near the village may be a good circumstance for collecting stories and myths.

1.4.2 Methodology and documentation design

Because the Akuntsú are all monolingual, data collection takes place through daily contact and constant interaction while I am with the group, with me learning more of their language through interaction and participant observation in the cultural context. The methodology is mostly based on “sampling, reliability and naturalness documentation” (Himmelmann 1998). For Akuntsú documentation, it is essential to observe, ask questions related to their current or recent activities, and record while in the context. The methods employed here are descriptive and functionalist, focusing on interpreting the morphosyntax of the language through an inductive approach.

The use of stimuli, such as video, photos and questionnaires, was also employed in the field and has proven valuable for some aspects of the research, though not sufficiently useful to gather specific language structures. For those situations, the best method found so
far is participating in daily activities (such as gardening, gathering firewood, etc.) or trying
to act out the situation with speakers. All of them want to contribute cultural knowledge and
personal stories. In addition to trying to help me understand the definitions of words, they
often want to tell me stories about specific daily situations and unusual events.

The linguistic analyses consisted of four main parts: (a) phonological, (b) morphological, (c) syntactic, and (d) semantic analysis. While in the field, I analyze the data and try to come up with hypotheses, in order to test them with the speakers. Data has been transcribed morpheme-by-morpheme using the ELAN program and translated interlineally, translated freely into English and Portuguese. Some parts of the data are also organized into a Microsoft Word document and then exported into FLEX, where I have been building the database for the dictionary, as well as some of the morphological analysis. Other parts of the data, which mostly include transcriptions of conversations, are still handwritten. Some of the texts used in the preparation of this dissertation include Akuntsú traditional oral stories and descriptions of primary cultural activities, such as (1) the preparation of the fermented drink, and manufacture of traditional baskets made with tucum fibers; (2) description of daily or common activities, such as tending their garden, preparation of tobacco and shamanism, preparation of traditional foods (for example, corn and manioc flour), extraction of nut oil, fishing, hunting, and honey collection. As for the data available in this dissertation, almost all of the examples presented here were tested and checked in the field while I was at the writing the dissertation or when some of the chapters were already in draft form. Comments and notes are taken on matters related to Akuntsú activities and stories in order to help understand the data. Annotation mainly includes place, consultant’s information, date, general description of the situation involved, individuals that were
involved into the conversation, and main gestures used during the talking. All these metadata have been extremely helpful to the current analyses.

Recording sessions involve audio and video recording. Audio recordings have been recorded in digital format (WAV) with mainly a Zoom H4 recorder and with a Shure SM58SLC cardioids dynamic microphone and a Sony ECM-MS957. The data is archived in WAV and MPEG format.

The Akuntsú have no children, and they understand what will be lost when they are gone. The ethical issues include respecting the wishes and decisions of the Akuntsú people, and following the dictates of FUNAI, which is legally responsible for the Akuntsú, for all the activities related to them, and for their protection.

There are problems encountered in documenting a community's sole language, such as Akuntsú, and some of them are briefly mentioned here. The most common problem seen during the first months of fieldwork among monolinguals is how to gather the first data. In order to start getting the first lexical items, the method used is to point to things (cultural elements, parts of the body, etc.) and to act out different movements to gather verbs, such as 'to sleep,' 'to jump,' 'to cut,' etc. In addition, another strategy used in gathering lexical items is to show the speakers pictures; however, the pictures, especially the ones with small animals, confused them, since they were not used to seeing animals from that perspective.

When someone is transcribing without help from native speakers, the task can be very difficult, but when we talk about transcribing speech styles other than the 'normal' one without the help of native speakers, this can be even more problematic. There are aspects of Akuntsú speech styles that are worth mentioning: for example, as I got to know the Akuntsú, I became impressed with their way of telling me some stories (especially the most
important events that happened in their lives), because all of them spoke simultaneously (literally), and I didn't know whom I should pay attention to, and I especially didn't know to whom I should direct the microphone. Of course, the transcription of these recordings was and still is a very slow process, since the speech is extremely rapid. Another speech style that I have seen is when they lower the pitch of their voices, talking louder than the usual, in such a way that the difference in pitch between women and men is almost imperceptible. Those speech styles are mostly used to camouflage what they are saying; they are used in different social contexts.

In addition to the monolingual setting, there is the issue of the number of speakers. This means that there are limitations on the speakers available for daily work. At the time that I first undertook fieldwork, the Akuntsú were the ones who chose my 'instructor' (not the opposite, as usually occurs), the person who would be in charge of teaching me the language. Audio recording is not always possible, because sometimes all of the speakers are busy with their daily activities, e.g. cooking, looking for seasonal fruit in the jungle, feeding their pets, etc. So, in the meantime, what is possible is to take notes on cultural aspects or on any structural aspects of the language that I can hear.\(^{19}\) In situations where audio recording is not possible, video recording may be a good option to gather a documentary corpus. The camera does not bother the Akuntsú, and they do not change their behavior at all in the presence of the camera. However, my concern with video was/is always about how to deal with audio quality, which tends to lose definition in video recordings, mostly because of the environment, which is always outdoors; indoors is problematic because of the darkness of

\(^{19}\) I also carry a fieldwork notebook (a journal). The notebook was/is important to annotate data, especially in cases when audio recording was not possible. The notes are valuable, for example (but not limited to) further matching with previous data and/or hypotheses, and also to annotate the speaker context at the moment that the data is being recorded.
their huts and because of the noise of their pets (birds of various species) that they usually keep inside of their huts; and because of the fact that Akuntsú are always moving around, doing their daily activities, which makes it a challenging task to handle the camera properly.  

Ethical practices involving recently-contacted Indigenous people are key to maintaining their vitality and ensuring that their identity (culture and language) will not be lost after contact with outsiders. It is very important to follow FUNAI's positive policies and rules in order to help them preserve the Indigenous’ rights.

### 1.4.3 The presentation of this dissertation

As for the organization of this study, this dissertation includes nine chapters.  

**CHAPTER 2, “Phonology,”** discusses the main phonological aspects of the Akuntsú system; the inventory of consonants and vowels is presented in tables and discussed in prose. Their phonetic realizations are addressed based on the environments that condition allophones. The main morphophonological aspects of the language are described, followed by the investigation of the syllabic patterns and the constraints involved in the syllabic structure, and soon after an analysis of the stress pattern of this language is proposed.  

**CHAPTER 3, “Word-structure and grammatical category,”** presents the terminology and definitions used in this dissertation, presenting also a brief overview of the word-classes found in Akuntsú and their definitions based on semantic and morphosyntactic criteria.  

**CHAPTER 4, “Nominal morphology,”** the main morphological aspects of nouns are described, including the types of nouns, nominal morphemes, derivation, composition and reduplication.

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20 Besides this, there is the issue of the process of inputting information (interlinear analysis, gloss and storage space) of video recordings into ELAN.
processes with respect to nouns and the pro-forms (pronouns and demonstratives). Finally, the chapter concludes with the numeral quantifiers and a discussion on genitive constructions and nominal phrases. In CHAPTER 5, “Verbal morphology,” I mainly present the types of verbs, as well as verbal morphemes such as transitivizers, directional morphemes and auxiliaries, and verbal aspects. In CHAPTER 6, “Adjectives and adverbs,” these two word classes are discussed, focusing on the differences and similarities that they share with other parts of speech. In CHAPTER 7, “Particles, ideophones and interjections,” there is a description of the main particles, ideophones and interjections found in the language, frequently found in texts. In CHAPTER 8, “Simple clause types,” the goal is to investigate the main non-verbal clauses in this language, and to provide a brief description of the sentence types, mainly focusing on negative and interrogative clauses.
2.1 Introduction

This chapter presents the basic phonological structure and prosodic analysis of Akuntsú; this chapter is an extended version of the analysis in Aragon (2008). I use segmental phonology to account for the distribution of the phonemes and their allophones in different syllable positions. Throughout this chapter, spectrograms and/or waveforms will be presented along with brief acoustic analyses when relevant for the discussion and visualization of the subject matter.

Compared to the other four Tuparían languages, Akuntsú and two other related languages—Wayoró and Makuráp—are the only ones that have /tʃ/ in their consonantal inventory but lack /s/ and /h/. Furthermore, the discussion of vowel length provides arguments that, despite the fact that long vowels are contrastive in most of the Tuparían languages, in Akuntsú vowel length is phonetically motivated, so that vowels do not contrast in length.

The stress pattern of disyllabic words may suggest a possible lexical stress in the language, and as such it will be only phonologically marked in words when necessary for the analysis. Below, it is summarized the symbols used in this chapter, as following:
In this chapter, segmental phonology (§2.2) is presented, including a description of the vowels (§2.2.1) and the distribution of consonants (§2.2.2). In addition, there is a discussion of the main topics concerning the phonotactics of the language (§2.3), followed by a presentation of the phonological processes involved in the language (§2.4) and a presentation on the prosody pattern, including a first description of Akuntsu rhythmic patterns (§2.5). Finally, a summary of the section is presented (§2.6).

2.2 Segmental Phonology

Given the phonological model adopted in this study, in Akuntsú there are 14 underlying consonants. Syllable initially, all of the consonants can occur in a CV(C), though /ɾ/ can occur only intervocalically. Only two of the underlying consonants can occur syllable-finally, /j/, and /w/, (see details in §2.2.2 below). There are five underlying oral vowels and five nasal vowels. Later in this chapter, the reasons for adopting the following as the underlying representation of vowels and consonants are explained.

Table 2.1 and table 2.2 below are organized according to place of articulation and manner of articulation. Note that in the following sections, detailed tables of consonants and
vowels are presented with arguments for and discussion of the natural classes identified.

As for the phonological rules, IPA symbols are used as long as they represent an economical and simple way of presenting the rules; in other cases, the distinctive features are preferable.

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>CONSONANTAL PHONEMES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>p b t d k g kʷ tʃ m n ñ r w j</td>
</tr>
<tr>
<td>[syllabic]</td>
<td>- - - - - - - - - - - - - - - -</td>
</tr>
<tr>
<td>[sonorant]</td>
<td>- - - - - - - + + + + + + + +</td>
</tr>
<tr>
<td>[continuant]</td>
<td>- - - - - - - - - - - + + + + +</td>
</tr>
<tr>
<td>[nasal]</td>
<td>- - - - - - - + + + - - - - -</td>
</tr>
<tr>
<td>[delayed release]</td>
<td>- - - - - - - + - - - - - - -</td>
</tr>
<tr>
<td>[labial]</td>
<td>+ + + + + + + + + + + + + + +</td>
</tr>
<tr>
<td>CORONAL</td>
<td></td>
</tr>
<tr>
<td>[anterior]</td>
<td></td>
</tr>
<tr>
<td>[strident]</td>
<td>- - - - - - - - - - - - - - -</td>
</tr>
<tr>
<td>DORSAL</td>
<td></td>
</tr>
<tr>
<td>[back]</td>
<td>+ + + + + + + + + + + + + + +</td>
</tr>
<tr>
<td>[voice]</td>
<td>- + + - + - + - + + + + + + +</td>
</tr>
</tbody>
</table>

Table 2.1 - Consonantal distinctive features.
2.2.1 Vowels

The Akuntsú vowel inventory has five underlying oral segments: close-front /i/, close-mid-front /e/, close-mid-central /ɨ/, close-mid-back /o/, and open-central /a/.

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>VOWELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>[syllabic]</td>
<td>i</td>
</tr>
<tr>
<td>[low]</td>
<td>+</td>
</tr>
<tr>
<td>[high]</td>
<td>-</td>
</tr>
<tr>
<td>[front]</td>
<td>+</td>
</tr>
<tr>
<td>[back]</td>
<td>-</td>
</tr>
<tr>
<td>[nasal]</td>
<td>+</td>
</tr>
</tbody>
</table>

**Table 2.2 - Vowels features.**

The phoneme /a/ is the only one specified with the feature [+low] which is essential to differentiating this phoneme from the other vowels. The difference between the two front vowels /i/ and /e/ is that /e/ is [-low, -high] while /i/ is [+high, -low]. Note that, in figure 2.1 below, /e/ tends to be lower than /o/, with /e/ more closely related to the position of open-mid vowels. One might argue that this vowel could be represented as /ɛ/ due to its lower position in the vocalic space; however, I will continue to represent it as /e/ to be consistent with the phonemes proposed for most of the Tuparían languages.
Aragon (2008) classified /i/ and /ɨ/ as high vowels. After more acoustic analysis, we have determined that those vowels do not have identical height. Carvalho and Aragon (2009) presented a preliminary vowel table for Akuntsú over the mean Z values of the data sample, which already displayed a difference of height among the three vowels in question in that study. Table 2.3 above shows an adapted based-feature analysis of the underlying vowels in which /ɨ/ is not of the same height as /i/ (though /ɨ/ is still considered a [+high] vowel), with an articulatory height (F1) closer to the mid-vowel /o/ rather than to the high-vowel /i/. Figure 2.1 below is presented in order to help the visualization of vowel height in Akuntsú.  

![Figure 2.1](image.png)

**Figure 2.1** - Vowel space of Akuntsú with average values for each vowel category over F1 (Bark) and F2 (Bark) dimensions. Legend (from bottom to top): ○ /a/, + /e/, x /o/, □ /ɨ/, and ▽ /i/. (Adapted from Carvalho and Aragon 2009).

In Akuntsú, there are inherently nasal vowels, but also phonetically nasalized vowels. The nasalized vowels (rather than underlyingly nasal) occur by assimilation from

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21 For more on the acoustic description of Akuntsú's oral vowels, see Aragon and Carvalho (2007).
nasal consonants. Inherently nasal vowels differ from oral vowels because of their [+nasal] feature, as follows:

<table>
<thead>
<tr>
<th>Nasal Vowels</th>
<th>Front</th>
<th>Central</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>ĩ</td>
<td>ɪ̃</td>
<td></td>
</tr>
<tr>
<td>Mid</td>
<td>ẽ</td>
<td></td>
<td>õ</td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td></td>
<td>ā</td>
</tr>
</tbody>
</table>

**Table 2.4** - Nasal vocalic phonemes.

### 2.2.1.1 Vocalic description and contrast

As represented in tables 2.3 and 2.4, there are five underlying oral vowels and five nasal vowels in the language. Each phoneme has a set of surface variants. In my analysis, the high front vowel /i/ has the variants [ɪ, ɪ], which are conditioned by stress, where [ɪ] and [ɪ] in varies in stressed position; /ɪ/ has corresponding variants, [ɪ̃, ɪ̃̃], depending on the stress. The mid front vowel /ɛ/ has the allophones [ɛ] and [ɛ], which are in free variation, and can have [æ] when preceded by a bilabial stop in a stressed syllable. The phoneme /ɛ̃/, parallel to non-nasal /ɛ/, has the allophones [ɛ̃] and [ɛ̃̃] in free variation with one another. For the high central vowel /ɨ/, the variants [ɨ] and [ɯ] are found in free variation when not stressed, and the allophone [ɔ] appears in stressed positions. The phoneme /ɨ̃/ has corresponding variants [ɨ̃, ɨ̃̃]. The back round vowel /o/ has the variants [o, u, ɔ, ʌ] in free variation in unstressed positions, and has [o, u] in free variation elsewhere. The phoneme /ɔ̃/ has the variants [ɔ̃, ʊ̃, ɔ̃, ʌ̃] in free variation depending on stress. Finally, the low central vowel /a/ has the surface forms [a, ɔ, ʌ] that alternate freely with one another in unstressed positions, with [a, ɑ] in free variation in stressed position. The phoneme /ā/ has the variants [ā, ā, ʌ] that alternate freely with one another in unstressed positions.
The vocalic surface forms can be laryngealized [+constricted glottis]\(^{22}\) when adjacent to glottal segment or depending on prosodic variables (more on creaky voice in §2.2.1.3). Vowels can also be phonetically long. Lengthening is mostly motivated by stress and speech rate (see details in §2.2.1.4). There are no underlying diphthongs in the language (more in §2.2.1.6).

The contrasts distinguishing the vowels in oral and nasal contexts are illustrated by the set of minimal pairs (or near-minimal pairs) presented below:

**Oral Vowels:**

/ᵢ/ vs. /ɨ/

(2.1) a. /pi/ [ˈpi] ‘foot’

b. /pi/ [ˈpi] ‘to shoot’

/ᵢ/ vs. /a/

(2.2) a. /ita/ [ˈita] ‘to arrive’

b. /iti/ [iˈti] i=ø-ti

3s=R-mother

‘his/her mother’

/e/ vs. /a/

(2.3) a. /itek/ [iˈtek̚] 3s=R-house

i=t-ek

‘his/her house’

b. /itak/ [iˈtak̚] i=ø-tak

3s=R-daughter.of.man

‘his daughter’

/e/ vs. /ɪ̞/

(2.4) a. /kete/ [kɛˈte] ‘there’

b. /ki/ [ˈki] ‘liquid’

---

\(^{22}\) Vowels produced with audible creaky voice are characterized as [constricted glottis] (Clements and Hume 1995:292).
/e/ vs. /i/  
(2.5) a. /ke/  
   ['kẹ]  
   ‘DEM’  

   b. /ki=/  
      [kʲi]²³  
      ‘1PL.INCL’  

/i/ vs. /a/  
(2.6) a. /tiri/  
   ['tiri]  
   ‘two’  

   b. /tara/  
      ['tara]  
      ‘question word’  

/o/ vs. /i/  
(2.7) a. /opo ape/  
   [oˈpo aˈpe]  
   o=ø-po + ape  
   1s=R-hand + skin  
   ‘my hand’s nail’  

   b. /opi ape/  
      [oˈpi aˈpe]  
      o=ø-pi + ape  
      1s=R-foot + skin  
      ‘my foot’s nail’  

/o/ vs. /e/  
(2.8) a. /okoro/  
   [oˈkoɾo]  
   o=ø-koro  
   1s=R-bowl  
   ‘my bowl’  

   b. /ekere/  
      [eˈkɛɾe]  
      e=ø-kere  
      2s=R-ribs  
      ‘your ribs’  

/o/ vs. /i/  
(2.9) a. /kop/  
   [ˈkop]  
   ‘red’  

   b. /kip/  
      [ˈkip]  
      ‘leg/wood/louse’  

/o/ vs. /a/  
(2.10) a. /kapa/  
   [kaˈpa]  
   ‘to roll’  

   b. /kobo/  
      [koˈbo]  
      ‘beans(sp.)’  

Nasal vowels:  
/i/ vs. /i/  
(2.11) a. /ika/  
   [iˈka]  
   i-ka  
   smell-TR  
   ‘to smell’  

   b. /ika/  
      [iˈka]  
      i=ko-a  
      3s=ingest-THV  
      ‘(He/she) eats it’  

²³ Personal pronouns are considered clitics and as such they do not bear stress. More on clitics in section 3.2.2.
(/ũ/ vs. /ɨ/) vs. /ɨ/

(2.12) a. /i/ka/
   [ɨˈka]
i-ka
   smell-TR
   ‘to smell’

   b. /i/ka/
   [iˈka]
i-ka
   genipap-TR
   ‘to genipap (to paint with genipap virginia liquid)’

(/ũ/ vs. /e/)

(2.13) a. /otʃikʷa/
   [oˈtʃikʷa]
o=ɿikʷa
   1s=kiss
   ‘(He/she) kisses me’

   b. /otʃe/
   [oˈtʃe]
   ‘1PL.EXCL’

(/ẽ/ vs. /e/)

(2.14) a. /kwẽkwẽ/
   [kwẽˈkwẽ]
   ‘scissors’

   b. /kwe/
   [ˈkwɛ]
   ‘game meat’

(/ẽ/ vs. /ã/)

(2.15) a. /jẽ/
   [ˈɲẽ]
   ‘mouth’

   b. /jã/
   [ˈɲã]
   ‘to sit/stay, sitting’

(/ẽ/ vs. /ĩ/) vs. /ĩ/ vs. /ã/

Minimal-pairs were not found for these vowels. The nearest minimal pairs found to illustrate this contrast would be: /kwẽa/ [wa ʔẽ] ‘pan’ vs. /kota/ [kotaʔĩ] ‘love bird (sp.)’

(/õ/ vs. /o/)

(2.16) a. /õ/
   [ˈʔõ]
   ‘tongue’

   b. /o=/
   [o]
   ‘1s’

   c. /õpa/
   [õˈba]
   ‘to beat’

   d. /opa/
   [oˈba]
   o=ø-pa
   1s=R-thigh
   ‘my thigh’

---

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\( /\ddot{o}/ \) vs. \( /i/ \)

(2.17) a. \( /\ddot{o}/ \)
\[ 'tongue' \]

b. \( /i/ \)
\[ 'genipap' \]

\( /\ddot{o}/ \) vs. \( /\ddot{i}/ \)

(2.18) a. \( /k\ddot{o}jka/ \)
\[ [k\ddot{o}j\ ka] \]
k\ddot{o}-ka
pound-\( \text{TR} \)
\[ 'to pound' \]

b. \( /kinka/ \)
\[ [k\ddot{i}n\ ka] \]
k\ddot{i}-ka
sift-\( \text{TR} \)
\[ 'to sift' \]

\( /\ddot{i}/ \) vs. \( /\ddot{i}/ \)

(2.19) a. \( /ak\ddot{t}f\ddot{e}n/ \)
\[ [ak\ddot{o}r\ t\ddot{f}\ddot{e}n] \]
'n'\( 'tongue' \)

b. \( /ki/ \)
\[ ['ki] \]
'liquid' 

\( /\ddot{a}/ \) vs. \( /a/ \)

(2.20) a. \( /k\ddot{o}r\ddot{a}/ \)
\[ [ku\ddot{r}\ddot{a}] \sim [k\ddot{o}n\ddot{a}] \]
'white grub (sp.)'

b. \( /ik\ddot{o}ra/ \)
\[ [i\ddot{k}\ddot{o}r\ddot{a}] \]
i=k\ddot{o}ra
3s=\text{search}
'\( (H)e/she\) searches for it'

c. \( /t\ddot{j}\ddot{o}\ddot{a}/ \)
\[ [t\ddot{j}o\ddot{r}\ddot{a}] \]
'cricket (sp.)'

d. \( /i\ddot{t}\ddot{j}\ddot{o}a/ \)
\[ [i\ddot{t}\ddot{j}\ddot{o}a] \]
i=t\ddot{j}op\-a
3s=\text{see-THV}
'\( (H)e/she\) sees it'

It was not easy to find minimal pairs in the language to identify contrasts that distinguish vowels by the presence/absence of the [nasal] feature on a specific vowel. This is seen in examples (2.11) and (2.12) where forms are repeated, and especially between \( /\ddot{e}/ \) and \( /\ddot{i}/ \) where no minimal pairs were found (only near minimal pairs).

Even with a large corpus analyzed, it is rare to find minimal pairs to illustrate nasal vowels in contrast. According to some reports in the literature, such as Ferguson (1966), underlying nasal vowels are less frequent than oral vowels in most languages that have contrastive nasal vowels.
2.2.1.2 Nasality in vowels

In this section, I describe the basic patterning of nasality in vowels in the language, outlining a hypothesis to account for the distribution of underlying nasalized vowels and surface nasalized vowels.

Nasalized vowels in the language, when adjacent to nasal segments,\(^{25}\) are contrastive only in stressed syllables. In stressed syllables, underlying oral vowels will not assimilate the nasal feature of adjacent consonants, as they do in unstressed syllables. That is, in unstressed syllables, vowels tend to become nasalized (showing up on the surface as phonetic nasal vowels) as a result of progressive or regressive assimilation when adjacent to a [+nasal] segment, either a nasal consonant or a nasal vowel.\(^{26}\) Thus, the fact that there are instances of vowels adjacent to nasal consonants that cannot become nasalized supports the analysis that vowels adjacent to nasal segments are underlying nasal only in stressed position. Vowels that are underlyingly oral in stressed position adjacent by a nasal segment do not become nasalized through the spreading of the [+nasal] feature of the adjacent nasal segment, as follows:

\[(2.21)\]
\[
\begin{align*}
\text{a. } /\=\text{na}/ & \quad [\text{na}] \quad *[\text{nå}] \quad \text{‘essive/translative’} \\
\text{b. } /\=\text{ma-ra}/ & \quad [\text{i.’ma-ra}] \quad *[\text{i’måra}] \quad \text{‘to spill it as usual’} \\
& \quad 3\text{s=}\text{keep/spill/put-HAB} \\
\text{c. } /\text{eme}/ & \quad [\varepsilon.’\text{mē}] \quad *[\varepsilon.’\text{mē}] \quad \text{‘DEM’}
\end{align*}
\]

Therefore, it is possible to find minimal pairs or near-minimal pairs with both oral and underlying nasalized vowels following nasal segments in stressed syllables, such as:

\(^{25}\) Note that unstressed vowels can be underlingly nasal in oral context, as for example in /\=\text{ka}/ [\=\text{ka}] ‘that.way’ vs. /\=\text{a}/’kå/ ‘bone’.

\(^{26}\) Both progressive and regressive nasal assimilation are possible in Akuntsù, as shown further in this section. Experimental studies need to be undertaken to determine whether or not regressive or progressive assimilation is stronger in this language. This will be addressed in a future study.
On the other hand, oral vowels may become nasalized surface vowels by the assimilation of the feature [+nasal], which applies from left to right in progressive assimilation (2.22a-e) or from right to left by regressive assimilation (2.22f-j).27

(2.22) 

a. /ameko/  
   [ɔ.mɛŋ.'ku] ~ [ɔ.mɛ.'ku]  
   ‘jaguar’

b. /nako/  
   [nɛŋ.'ko] ~ [nɛ.'ko]  
   ‘man/male’

c. /peniket/  
   [pe.nɛŋ.'kɛt'] ~ [pe.nɛ.'kɛt'']  
   ‘ladybug (sp.)’

d. /meti/  
   [mɛn.'di] ~ [mɛ.'di]  
   ‘maripa (fruit sp.)’

e. /o=ø-mepit/  
   [o.mɛm.'bit'] ~ [o.mɛ.'bit’]  
   ‘my son’

f. /imimere/  
   [ʒ.mɛ. 'me.re]  
   ‘Omerê (river’s name)’

g. /jâj/  
   ['jâj] ~ ['nâj]  
   ‘tooh’

h. /kojöpe/  
   [kɔ.ɲo.'pe]  
   ‘(At) night’

i. /i=öpa/²⁸  
   [jʊ.'ba] ~ [ɲo.'ba]  
   ‘to beat him’
   3s=beat

j. /ki=jê/  
   [ɡi.'ɲê] ~ [ɡi.'jê]  
   ‘our mouth’
   1PL.INCL=mouth

Moreover, as a result of progressive assimilation, optional syllable-final nasal segments are produced when nasalized vowels precede an obstruent (as seen in (2.22a-e) above). Compare figures 2.2 (a-b) which illustrate two spectrograms that show variation in the production of the token /ameko/ ‘jaguar.’ The first picture shows a token where no syllable-final nasal segment is produced, as seen in the outlined part shown by the arrow. In figure (2.2b), however, the speaker is producing a nasal segment syllable-finally as a result of progressive assimilation of the [nasal] feature that spreads from the segment [m] up to the vowel [ɛ]; the resulting [ê] then goes further to create also the surface [ŋ].

²⁷ Through a process of nasal harmony, nasal assimilation affects only glides and vowels. In (22j) below, the obstruent became [+voice] due to the fact that voiceless consonants tend to vary in voicing word-initially. For further details see section 2.2.2.1.1.

²⁸ The third personal pronoun may have the following phonetic realizations: [j] when adjacent to oral vowels, [ɻ] ~ [ŋ] adjacent to nasal vowels.
One could argue that instead of having for instance /ameko/, we should postulate /amenko/ [ɔ.mɛŋ.ko] (as well as for others that undergo the same process), and say that the nasalization of the vowel would occur due to regressive assimilation spread from the coda nasal segment /n/, rather than saying that the vowel becomes nasalized from progressive assimilation spread from the onset nasal segment /m/. However, this would create a puzzle since one would have to argue to explain why there is sometimes variation between [ɔ.mɛŋ.'ku] ~ [ɔ.mɛ.'ku] by creating additional rules to account for this variation.

![Figure 2.2 (a)](image1.png) - No nasal segment after nasalized vowel

![Figure 2.2 (b)](image2.png) - Homorganic nasal segment after nasalized vowel

Note that there are cases where regressive assimilation may not occur either because (a) nasal assimilation is optional across syllable boundaries or the degree of nasalization may be very low (see (2.23a-b). Nasal spreading tends to prefer vowels that are contiguous
by tautosyllabic nasal segment. This means that, in some cases, syllabification can affect nasal assimilation, interfering in the spreading of the [+nasal] feature; or because (b) the type of consonant can be an obstacle to the spreading of the [+nasal] feature. In Akuntsú, for example, sonorants are more likely to have the nasality spread to them, as they can also be affected by nasality (2.23c-e);\(^{29}\) obstruents tend to block any tentative spreading of the [+nasal] feature to the preceding vowel, though stops may be affected by nasality (2.23f)—details on nasality and voicing given in §2.2.2.1.2. Note here that the progressive assimilation usually occurs in adjacent segments that are [+nasal] or [+continuant] and it seems to be a general rule at least in unstressed syllables.

(2.23)  

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>/tʃajá/</td>
<td>[tʃɐ̃.ˈɲɐ̃]</td>
<td>‘earring’</td>
</tr>
<tr>
<td>b.</td>
<td>/e=ø-amõna/</td>
<td>[ɛɐ̃.ˈmɨ.ɲə]</td>
<td>‘your knee’</td>
</tr>
<tr>
<td></td>
<td>2s=ʁ-knee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>/wẽro-wẽro/</td>
<td>[w̃.ˈwɛ.ˈrʊ]</td>
<td>‘bee (sp.)’</td>
</tr>
<tr>
<td>d.</td>
<td>/aramĩra/</td>
<td>[a.ɾa.ˈmɨ.ɾʊ]</td>
<td>‘woman’</td>
</tr>
<tr>
<td>e.</td>
<td>/kĩɾẽ/</td>
<td>[kĩ.ˈɾɪ]</td>
<td>‘today’</td>
</tr>
<tr>
<td>f.</td>
<td>/mapĩ/</td>
<td>[mẽ.ˈpi]</td>
<td>‘arrow’</td>
</tr>
</tbody>
</table>

Nasalization may also have an effect on vowel quality; the quality of the vowel often changes when it carries the [+nasal] feature. As seen in some of the examples above, high and mid vowels tend to lower, while low vowels tends to raise their height, as seen below:

\(^{29}\) Note that approximants are the only underlyingly non-nasal consonants that can have nasal allophones [w̃, ʈ̃, ř] when adjacent to nasal segments. The segment [ʃ] may also be realized as [n] syllable-initially.
### Oral Vowels  ------  Nasalized Vowels

<table>
<thead>
<tr>
<th>Oral Vowel</th>
<th>Nasalized Vowel</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>ã ~ ã</td>
</tr>
<tr>
<td>e</td>
<td>ë</td>
</tr>
<tr>
<td>i</td>
<td>ã</td>
</tr>
<tr>
<td>ɪ</td>
<td>ï</td>
</tr>
<tr>
<td>o</td>
<td>õ ~ õ ~ ŋ ~ ŋ</td>
</tr>
</tbody>
</table>

**Table 2.5** - Quality of [+nasal] vowels. These vowels are phonetically conditioned (see section 2.2.1.1 for details).

#### 2.2.1.3 Laryngealized (creaky) vowels

In this section, I will discuss creaky (laryngealized) voice in the language, providing the cues that signal the presence of laryngealized vowels and their motivation. In Akuntsú, there are no underlying creaky-voiced vowels, which means that voice quality does not play any distinguishing role in lexical items; rather, it is possible to identify three main types of creaky voice depending on function. The implementation of laryngealization is mostly motivated by prosodic variables; for example, vowels in stressed syllables are highly marked by tightened glottis. Arguments in favor of laryngealization as a phonetic motivation rather than as a phonemic characteristic of vowels in Akuntsú are also presented in this section.

The [glottal] feature is one that motivates creaky voice in surrounding vowels in this language.\(^{30}\) Glottal stop may be realized either as a complete closure or as creakiness in surrounding vowels.

Aragon (2008) stated that the likelihood of creaky-voiced vowels is not restricted only to the presence of an adjacent glottal stop in the language. Note that for cases such as

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\(^{30}\) According to Gordon and Ladefoged (2001), syllable position, stress, and adjacent glottal stops are likely locations for the occurrence of laryngealization cross-linguistically.

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the one in (2.24d) below, Rodrigues (2003) argued that there is a relation between nasalization and laryngealization attested in different Brazilian indigenous languages, where the nasality provokes the manifestation of the glottal stop and vice-versa (Rodrigues 2003:19);\(^{31}\) this was also found among Tuparí speakers (Rodrigues and Alves 1992).

(2.24)   a. /kɨpek/ [ki.'pɡk\'] ‘papaya’
   b. /atap/ [a.'tап’] ‘hair’
   c. /pea/ [pɛ.'ʔa] ‘firewood’
   d. /i=ø-men/ [iʔ’mɛ̃n] ‘her husband’

In order to explain laryngealization in the language, Carvalho and Aragon (2009) showed that the main acoustic cues of laryngealized vowels in the language are seen in: (a) variation in the duration of jitter\(^{32}\) that tends to be higher in creaky-voiced vowels than in vowels that have a normal mode of vibration (modal vowels); and from (b) the difference in amplitude between H1-H2 in creaky-voiced vowels and non-creaky voiced vowels, where the laryngealized vowels have higher H1-H2 values than modals.

After having justified the arguments above, Carvalho and Aragon (2009) compared vowels in stressed and unstressed syllables where the results supported the hypothesis that indeed, by comparing vowels in stressed syllables with those in non-stressed syllables, the vowel quality in stressed syllables tends to be much more marked by constricted glottis than their unstressed counterparts. In conclusion, Carvalho and Aragon claimed that:

"[...] Although there is no evidence for a lexical, underlying contrast between modally-voice and laryngealized vowels in Akuntsú, the strength with which pressed voice (i.e., laryngealized voice) is realized in the language suggests a role for this distinguished phonetic event beyond that of variations in phonation setting [...]" (Carvalho and Aragon 2009:12).

\(^{31}\) Matisoff (apud Rodrigues 2003:19) also called attention to this phenomenon (where nasality influences glottalization) among some Asian languages.

\(^{32}\) Fluctuations in pitch.
Creakiness - Type I

Stress motivates creakiness in the language. In figure 2.3 below, by comparing the two vowels of the token [kiˈbæːk] ‘papaya’, we see that [ə] is being produced with asymmetrical glottal pulses (by tightening the vocal chords) with increased jitter when compared with the first vowel [i].

![Figure 2.3 - Laryngealized vowel in /kipek/ [kiˈbæːk] ‘papaya.’](image)

Note from Figure 2.3 (a sample token from among others) that creaky-voiced vowels tend to be longer than modal vowels, where the vowel [i] measures 164 ms. and [ə:] 191 ms. This is not a characteristic only of Akuntsú. Kirk et al. (1993) reported earlier that non-modal vowels tend to have longer duration (§2.2.1.4 for vowel length).

By considering the fact that stressed syllables tend to be more marked by constricted glottis in the language, I may assume that creaky voice functions to play on the perception of a syllable’s prominence in the word, since creaky voice enhances the level of energy, by increasing the loudness.

However, there are some examples in which vowels, even though in unstressed
position, may have a higher level of constricted glottis than those in stressed syllables, which leads us to describe a second type of creaky voice in the language.

**Creakiness - Type 2**

This type of laryngealization can be explained by speech rate and the insertion of the glottal stop syllable-initially and syllable-finally, which in this case is being phonetically realized as creakiness on the vowel. In the example below, the epenthesis of the glottal stop is due to speech rate, whereas the word is being used emphatically in a careful and slow speech. Careful and slow speech is often realized in the language with lengthened vowels caused by the creakiness and/or the speech rate. Consider the spectrogram shown in figure 2.4 below, which shows a word being pronounced in slow speech.

![Spectrogram](image)

**Figure 2.4** - Unstressed syllable highly laryngealized /eni/ [ɛ̰ːn̩iː] ‘hammock.’

Now, compare figure 2.4 with figure 2.5 (below) where the same word is been pronounced under different prosodic conditions, i.e., in figure 2.5 the speaker is saying this word in normal speech (opposite situation found in the figure 2.4 above).
The vowel in stressed position (the final vowel) is longer than the one in the unstressed syllable, which is the opposite situation of both vowels (initial and final) described in figure 2.4 above.

In this language, syllable-initial or syllable-final vowels (specially those at the end of a prosodic unit) tend to bear some degree of laryngealization.

Thus, the tightening of the vocal folds in these positions is often motivated by (a) the epenthesis of a glottal stop resulting in a glottalized\(^{33}\) consonant when in syllable final position (2.25a), (b) creaky vowel (2.25b) (due to **TYPE 1, TYPE 2 or TYPE 3** conditions, as presented further in this section), or (c) the presence of a full glottal stop (2.25c). Examples are provided below:

\[(2.25)\]

| a. /otat/ | \(\tilde{\epsilon}ni\) | ‘fire’ |
| b. /tato=na/ | \(\tilde{\epsilon}ni\) | ‘(It is) an armadillo’ |
| c. /apara-\(\tilde{\epsilon}\)na/ | \(\tilde{\epsilon}\)na | ‘big banana’ |

\(^{33}\) The term glottalized is being used in this study to mean that either the consonant or the vowel has a sequence involving V or C and glottal stop, or that the V is laryngealized.
In (2.25a-b); the words are pronounced in careful and slow speech where speakers tend to reinforce the perception, and therefore the clarity, of the speech through a natural process of fortition, which is a phonetic process that optimizes individual segments—that is, yields them to be easily perceived and articulated by the speakers (Donegan and Stampe 2009). In (2.25c), the glottal stop works as a good indication of word-boundary between two grammatical elements. In other words, the epenthesis of a glottal stop in those contexts tends to increase the perception of the syllable boundary or phrasal boundary, i.e., laryngealized vowels syllable-finally and/or word-finally in unstressed position come from the presence of an emphatic glottal stop.

**Creakiness - Type 3**

Besides the creakiness of Type 1 and Type 2, pragmatic variables also influence the distribution of creaky voice. Paralinguistic use also causes creakiness. In Akuntsú, Aragon (2008) argued that the recounting of past traumatic or stressful situations might be accompanied by creaky voice in the whole phrases and/or stretches of speech, in utterances longer than words. Creaky voice, in this case, functions in the language to enhance the expression of emotions.

Creakiness in Akuntsú also varies across speakers, which means that the level (high vs. low creaked vowels) and the manifestation of laryngealization tend to be speaker dependent, as well.
2.2.1.4 Vowel length

Acoustic duration is the main cue to distinguish between long and short vowels; however, other factors, such as stress, voicing, gender, numbers of syllables in the word, rate of speech, and vowel height (cf. Diehl 1996, Lehiste 1970) have been found to affect vowel duration in languages. Several languages have contrastive underlying long and short vowels. In these languages, there are “pure” length contrasts, as in Finnish, where duration is the sole feature distinguishing the vowels. However, in languages such as Spanish, two degrees of length depend on the context, on whether the vowel is stressed or not. Vowels are shorter in unstressed syllables and longer in stressed syllables—a phonetic difference, but not a phonemic one (Zimmerman and Sapon 1958). The difference between languages such as Spanish, and languages with a true phonemic vowel-length contrast is that in Spanish long and short vowels are not distinctive—they are conditioned by certain phonetic contexts, such as whether the adjacent consonant is voiced or whether the vowel is stressed.

To verify the status of vowel length in Akuntsú, this section first investigates the interaction of stress with vowel length in Akuntsú to determine whether or not the quantity of vowels is increased under stress. Secondly, it examines the phonological and acoustic evidence to determine underlying vowel length in the language.

For Akuntsú, there is no previous analysis or description of vowel length, especially not of vowel length and the effects of stress on vowel duration. However, in previous descriptions of languages closely related to Akuntsú, at least three of the five Tuparí languages have been analyzed as having phonemic vowel length, a fact that motivates us to undertake a deeper analysis here. The putative minimal pairs below based on auditory perception constitute an argument to support the hypothesis that Akuntsú does have
contrastive vowel length. Some words are presented below - however as seen in this section the lengthening of the vowels are phonetically conditioned.

(2.26)  

a.  
\[ˈkaːp\]  
‘flute’

b.  
\[ˈpiːpa\]  
‘broom’

c.  
\[iˈtoː\]  
‘its pit’

According to previous literature on vowel length, some elements may contribute to increasing the duration of vowels, such as: (a) vowel height; (b) adjacent consonants; (c) position of the syllable in the word; (d) syllable structure (closed or open); (e) gender; and (f) rate of speech. But the most important note to make here is that there is variation in my transcriptions, which means that they are not always consistent, and those long vowels presented above are sometimes transcribed as short.

After undertaking some acoustic investigations we found that, not surprisingly, stressed vowels have longer duration than their unstressed counterparts. The purpose of the analysis was to determine if vowel duration varies as a function of stress. All the syllables were taken in isolation. The target syllables have voiceless labial onsets and the same vowel quality in the nucleus, and they are in open syllables. A total of 15 tokens were used. Averages and ratio (vowel duration by word duration) were calculated to present the results. The standard deviation value was used here as a measure of dispersion of the sample.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stressed syllables</td>
<td>0.1361</td>
<td>0.05607</td>
</tr>
<tr>
<td>Unstressed syllables</td>
<td>0.0985</td>
<td>0.04665</td>
</tr>
</tbody>
</table>

Table 2.6 - Mean of the ratio found for syllables in unstressed and stressed position.
On the basis of these findings, vowels in stressed syllables tend to have longer duration than those in non-stressed syllables. Shorter vowels are commonly found in unstressed syllables while the longer ones are found primarily in stressed syllables. As illustrated by the rule below, vowels will be longer when stressed in a normal speech event, as following:

**Rule (Stressed Syllables)**

\[ \tilde{V} \rightarrow [+ \text{long}] \]

Note, however, that the rule above depends on speech events since in careful and slow speech the speaker may optionally lengthen the unstressed vowels (as shown in creaky vowel section above), and thus, unstressed vowels tend to be shorter than the stressed vowels. The examples provided in creaky vowel section above are repeated here to clarify the discussion, including the ratio of each vowel for each token—the ratios of phonetic long vowels are in bold.

<table>
<thead>
<tr>
<th>SLOW SPEECH</th>
<th>VS.</th>
<th>NORMAL SPEECH</th>
</tr>
</thead>
<tbody>
<tr>
<td>[\tilde{\varepsilon}n'\tilde{i}]</td>
<td></td>
<td>[\tilde{\varepsilon}n\tilde{i}:]</td>
</tr>
<tr>
<td>[\tilde{\varepsilon}:]</td>
<td><strong>0.354</strong></td>
<td>[\tilde{\varepsilon}]</td>
</tr>
<tr>
<td>[\tilde{i}]</td>
<td>0.151</td>
<td>[\tilde{i}:]</td>
</tr>
</tbody>
</table>

Table 2.7 - Ratio for vowel in slow and normal speech.

Another fact to address is that vowels tend to be longer in open syllables than in closed syllables.\(^{34}\) It is possible to visualize it from the values below which present similar results as compared to other tokens analyzed for this language. Though it represents but a

---

\(^{34}\) Vowel height also has an effect on vowel duration. Commonly cross-linguistically, “vowels that are lower in the vowel space are longer than those that are higher in that space” (Myers 2005:434).
sample of the data, it is elucidating, as presented below:

<table>
<thead>
<tr>
<th></th>
<th>Stressed</th>
<th>Ratio</th>
<th>Unstressed</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Open Syllable</strong></td>
<td>[ɛˈpu]</td>
<td>0.322</td>
<td>[uˈtek]</td>
<td>0.284</td>
</tr>
<tr>
<td></td>
<td>‘your hand’</td>
<td></td>
<td>‘my house’</td>
<td></td>
</tr>
<tr>
<td><strong>Closed Syllable</strong></td>
<td>[təpˈdu]</td>
<td>0.266</td>
<td>[uˈtat]</td>
<td>0.220</td>
</tr>
<tr>
<td></td>
<td>‘manioc’</td>
<td></td>
<td>‘fire’</td>
<td></td>
</tr>
</tbody>
</table>

Table 2.8 - Ratio for open and closed syllables.

Though it wasn't possible to state contrastive pairs based on vowel length, there are vowels that are longer than others, especially monosyllabic vowels. Based on the data analyzed, I hypothesize that the lengthening of vowels in monosyllabic words is not to assign contrastive grammatical meaning, but rather that vowels (with identical quality) tend to be far shorter in disyllabic words (or words with more than two syllables) than in monosyllabic words, due to the creation of an expansion effect in monosyllabic words in order to maintain roughly uniform the word duration in the language.

While investigating vowel length, we also need to keep in mind that words with long vowels should be consistently longer in duration than those with short vowels (Hirata 2004). After analyzing the corpus, though I couldn't totally control for some of the variables—for instance, vowel height and adjacent consonants—it was not possible to find cases of words that seemingly have contrastive length (minimal or near-minimal pairs). It is likely that there is no phonemic vowel-length contrast in the language based on this first analysis presented here.

This data suggests that length in this language is predictable. However, one would argue that there might be possible cases of underlying vowel-length, and if one would like to
consider this hypothesis, the functional load of vowel length in the language would be extremely low and very atypical of languages that do have, indeed, contrastive length.

**Typological note**

For Mekéns, Alves and Galucio (2007) investigated the oral vowels in this language in the speech of three native speakers as part of the experiment. They based their preliminary study on acoustic analysis (average and standard deviation values for each) in which they concluded that Mekéns has phonemic short and long vowels. However, the authors did not discuss factors such as rate of speech and other variables that may cause the lengthening of vowels.

For Tuparí, on the other hand, Alves (2004) addressed vowel length based on phonological arguments. She argued that the set of minimal pairs in this language is sufficient to diagnose vowel length and to determine phonemic status. Based on the minimal pairs below, Alves (2004) argues that duration is phonemic in Tuparí, because the examples show a contrast between short and long vowels.

**Tuparí** (adapted from Alves (2004))

(2.27)  

a. /aːp/  
   ‘flute’

b. /ap/  
   ‘lard’

c. /hoːp/  
   ‘father’

d. /hop/  
   ‘clay’

In her phonological study, the minimal pairs above are the only one encountered; however, she also presents examples of long vowels, but those are not compared with their short counterparts. Some of the words found with long vowels are reproduced below:

**Tuparí** (adapted from Alves (2004))

(2.28)  

a. /aːpe/  
   ‘road’

b. /pyːj/  
   ‘soup’
c. /haːp/  
   ‘housing’


d. /miːn/
   ‘hummingbird’

e. /haːn/
   ‘length’

f. /poːt/
   ‘old’

g. /kiːt/
   ‘seed’

h. /eraːt/
   ‘big’

In Makuráp, Braga (2005) doesn’t mention long vowels as part of the vocalic inventory of this language, and neither does she mention whether there is phonetic lengthening within specific contexts. However, for Wayoró, Nogueira (2011) argues that there is a set of long oral vowels and long nasal vowels in this language. The author supports her analysis with near-minimal pairs and few minimal pairs.

2.2.1.5 Vowels and glides

In this subsection, the goal is to analyze the behavior of [w] and [j] syllable-finally and syllable-initially, where no phonological process is involved. Akuntsú has underlying vowels /i/ and /o/, as well as glides /j/ and /w/, so the main goal here is to give reasons to support the claim that glides in this language are not distinct from non-syllabic vowels. This subsection deals with the distribution of glides and their sources: the nature of what is transcribed with [j] and [w] will be described.

[w] and [j] behave as [-vocalic] segments word-initially, word-finally, and intervocally, and as such they pattern like consonants in such positions. Some examples of words with approximants follow (see more in §2.2.2.4.2):

**WORD-INITIALLY AND WORD-FINALLY**

(2.29)  

| a. /tʃãw/ | [ˈdʒãw] | ‘to chew’ |
| b. /wen/   | [ˈwɛn]  | ‘to finish’ |

35 Recall that I am using /o/ rather than /u/ to follow the table of vocalic phonemes presented in table 2.3.
c. /jat/  [ˈjat̚]  ‘2PL’
d. /baj/  [ˈbaj]  ‘buriti (palm fiber (sp.’)

INTERVOCALICALLY

(2.30)  a. /aw-aw/36  [aw.ˈaw]  ‘baby/child’
   b. /ojoja/  [o.jo.ˈja]  ‘bee (sp.)’
   c. /tawtʃe/  [tawˈdʒɛ]  ‘peccary’
   d. /tawkop/  [tawˈkop̚]  ‘holler mokey (Alouatta)’

MOTIVATIONS

The analysis of [j] and [w] word-initially as consonants is consistent with the fact
that all consonants with the exception of /ɾ/ and /ŋ/ can occur at the beginning of words, and
considering these surface forms as non-syllabic creates a more symmetrical pattern in the
language.

In the claim that word-final glides are surface consonants rather than vowels, one
would have to argue that vowels also surface in that position. Considering the distribution of
vowels and consonants it is possible to affirm that all vowels occur syllable-finally, which is
not the case for the consonants; only unreleased consonants [p̚, t̚, k̚] and the nasals [m, n,
ŋ] occur finally. Based on this assumption, one could consider the final glides as surface
forms of underlying vowels. However, the evidence which most strongly convinced me that
the glides are not deriving underlying glides is a morphophonological process that takes
place when the negative suffix is attached to nouns. There are two allomorphs of the
negative suffix: =erom and =rom. The first attaches to nouns and verbs that end in a
consonant and the other to forms that end in a vowel. In cases where there are glides word-
finally, the allomorph chosen is =erom rather than =rom, as shown in (2.31):

36 In this lexicalized form, there is the reduplication of the ideophone aw.
\(= (e)rom\) ‘NEGATIVE’

(2.31) a. /jâj=erom/  \([nâjêrôm]\)  ‘There is no tooth’

\(= (e)rom\) ‘NEGATIVE’

(2.31) b. /apaw=erom/  \([apâwêrôm]\)  ‘There is no grub (sp.)’

### 2.2.1.6 Phonetic diphthongs

Cross-linguistically, there are two types of diphthongs: underlying diphthongs or true diphthong and those considered phonetic diphthongs (false diphthongs).\(^{37}\) Akuntsú has false diphthongs, which means that they are not single phonemes; rather, they are sequences of underlying vowels that are subject to constraints regarding their combination (with the exception of some VG sequences that are sequences of \([\text{VOWELS} + [-\text{SYLLABIC}] \text{ segments}]\)). Sequences of vowels in the language are constrained and morphophonologically conditioned.

Examples of diphthong formation are given in the table 2.9. One noteworthy point from table 2.9 below is related to the lack of examples of diphthongs formed with the high central vowel /\(i/\); since no indication was found to justify the fact that such combination cannot occur, the lack of examples is indicated by a question marker (\(?\)); the symbol (*) indicates that the combination is not possible.

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\(^{37}\) See Rehg (2007) for discussion on diphthongs.
<table>
<thead>
<tr>
<th></th>
<th>i</th>
<th>e</th>
<th>i</th>
<th>a</th>
<th>o</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>---</td>
<td>/i=erek-kʷa/ TR.PL</td>
<td>/kia.ˈkop'/ ~ [kʲa.ˈkop']/ TR.PL</td>
<td>/ororo i-ko/ TR.PL</td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>/e=i-mi/ 2s=OBJ.NMLZ-kill [ɛjˈmi] 'your killed (thing)'</td>
<td>---</td>
<td>/e=ø-amîña/ 2s=R-knee [ɛa.ˈmi.nĩ] 'your knee'</td>
<td>/ke o=tʃop-a/ DEM 1S=see-THV [kɛw.dʒoa] 'That one sees me'</td>
<td></td>
</tr>
<tr>
<td>i</td>
<td>?</td>
<td>/i.ˈko/ 'vulture'</td>
<td>---</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>a</td>
<td>/Aramîra i-ko/ Aramira OBJ.NMLZ-ingest [ã.ɾã.mĩ.ɾajˈko] 'Aramira's food'</td>
<td>/aeraka/ [aɛɾa.ˈka] 'soco-boi (bird sp.)'</td>
<td>?</td>
<td>---</td>
<td>/Aramîra o=tʃop-a/ Aramira 1S=see-THV [ã.ɾã.mĩ.ɾaɾw.ˈdʒoa] 'Aramira sees me'</td>
</tr>
<tr>
<td>o</td>
<td>/o=i-ko/ 1s=OBJ.NMLZ-ingest [ʊj.ˈko] 'my food'</td>
<td>/poetop/ [pˈuɛ.ˈtop']/ ~ [pʷɛˈtop']/ 'to know'</td>
<td>?</td>
<td>/oanam/ [waˈnɛm] 'my head'</td>
<td>---</td>
</tr>
</tbody>
</table>

Table 2.9 - Possible sequences of false diphthongs.

The main constraints related to the formation of diphthongs in this language can be conditioned mainly by the following characteristics found in this language:

(1) Diphthongs are formed when two unstressed vowels are combined in the same syllable (as depicted in table 2.9);\(^\text{38}\)

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\(^\text{38}\) When two vowels are adjacent to each other and one is stressed, the obligatory epenthesis of glottal stop between them avoids diphthong formation. When two identical vowels come together, one of the vowels will be deleted and, in these cases no diphthong is produced (see §2.4.1.1).
Diphthong formation is conditioned by rate of speech. The examples in table 2.9 above present an instance of diphthong formation where in a non-slow speech, if $V_1$ is /i/ or /o/ it may become a glide, part of the onset consonant in a CV$_1$V$_2$ structure, as in:

/kiakop/ and /poetop/
[kʰə.kɔp] [pʰɛ.tɔp]
‘sun’ ‘to know’

Diphthong formation in this language is often of two kinds: (i) sequences of vowel + glide$^{39}$ [VG], (ii) glide + vowel [GV], where glides are formed under the conditions provided in (1) and (2) above.

The examples (2.32a-b) illustrate the distribution of surface glides that are derived from underlying /o/ and /i/ across clitic and word boundary. In these cases, glides form phonetic diphthongs, since they are vowel-like, but different from vowels in that they cannot form a syllable by themselves. Some cases of GLIDES + VOWELS (2.32a) and VOWELS + GLIDES (2.32b-c) sequences are exemplified in the following examples (in boldface):

(2.32) a. /o=ø-akõja/  
1s=r-beard  
‘my beard’

   /kʰako i=ko-a/  
   guan (sp.) 3s=ingest-THV  
   ‘guan (sp.) is eating it’

   /Ururu i-ko/  
   Ururu OBJ.NMLZ-ingest  
   ‘Ururu’s food’

In addition, diphthong formation also depends on paralinguistic factors, such as the rate of speech of the speaker, as illustrated below—diphthongs are in boldface:

$^{39}$ Acoustically the difference between glides and vowels in Akuntsû is that vowels show a slow formant transition and glides are realized with a fast formant transition. Moreover, glides show less constricted spectrogram than vowels, and this is true generally also cross-linguistically (Ladefoged and Maddieson 1996).
When the speakers pronounce the word in careful and slow speech, they can optionally place a glottal stop between the sequences of vowels,\textsuperscript{40} and as such there is no diphthong formation (as shown in slow speech (2.33b) as opposed to faster speech (2.33a) above). I turn now to some of the main factors that contribute to diphthong formation: RATE OF SPEECH and STRESS.

The sequence of vowels may or may not be tautosyllabic. With respect to glide formation the rate of rate of speech determines glide formation across word boundaries. The same applies to the vowel-vowel sequences that do not involve glides, i.e., the combination of vowels (VV) can be placed in the same nucleus in normal and especially in fast speech, or the vowels of the sequence can be placed in different syllables in slower speech (forming a hiatus (V.V)), as shown below in (2.34).

\begin{table}[h!]
\centering
\begin{tabular}{lll}
\textbf{ACROSS CLITIC BOUNDARY} & \textbf{NORMAL OR FAST SPEECH} & \textbf{SLOW SPEECH} \\
\hline
(2.34) a. /o=ø-ajtʃi/ & [waj.tʃi] & [tŋ.?aj.tʃi] \\
1S=R-wife & ‘my wife’ & \\
\hline
b. /te=i-kə/ & [tɛj.ko] & [tɡ.?i.ko] \\
3COR=OBJ.NMLZ-ingest & ‘his own food’ & \\
\end{tabular}
\end{table}

\textsuperscript{40} See §2.2.2.1.8 for glottal stop epenthesis.
Thus, as shown above, in this language, instances of hiatus are formed under paralinguistic conditions. Note, however, that the examples in (2.36) below are sequence of VOWEL + VOWEL where there is no glide formation. This is due to the fact that the last vowel is stressed. In this case, when one of the two sequences of vowels is associated with stress, speakers consistently syllabify the words and add a glottal stop between them, to avoid diphthongization. Some examples are given below:

(2.36)  
a. /ei/   [ɛʔi]   ‘blood’
b. /kʷaẽ/ [waʔɛ] ‘pot’
c. /eo/   [ɛʔu]   ‘belly’
d. /ai/   [aʔi]   ‘caterpillar (sp.)’

Factors such as the one that the final vowel is placed in stressed position and the insertion of a glottal stop are involved in the avoidance of diphthongization.

2.2.1.7 Speech rate, length, and stress

Depending on the rate of speech, vowels may tend either to become longer or to be deleted. In slow speech, for example, vowels are more likely to have longer length and to bear hard laryngealization than in normal and fast speech, as in the following examples:

**SLOW SPEECH**

(2.37)  
a. /apara/   [a:pəˈra]   ‘banana’
b. /kopiba/  
   [kɔˈpiba]  
   ‘parrot (sp.)’

On the other hand, in fast speech (and sometimes in normal speech) unstressed vowels and even whole unstressed syllables within words of three syllables or more are more likely to be deleted, as in the following examples:

**FAST SPEECH**

(2.38) a. /aramĩra/  
   [nãˈmĩɾ̃]  
   ‘woman’

b. /takirap/  
   [kiˈrap̚]  
   ‘spider-monkey’

c. /ameko/  
   [mẽˈku]  
   ‘jaguar’

d. /akataba/  
   [kaˈtaba]  
   ‘tucum (palm fiber (sp.)’

### 2.2.2 Consonants

There are five manners of articulation for the consonants, namely stops, affricates, nasals, flaps and approximants, and five places of articulation, labial, alveolar, palatal, velar, and labio-velar. All the consonants, introduced below, are described according to their manner and place of articulation. In subsections of this section, I also introduce the distribution of consonants, the forms in complementary distribution, as well as the ones in free variation. Table 2.10 below describes the underlying consonants, represented with IPA symbols.
2.2.2.1 Stops

There are five underlying supra-glottal voiceless stopped consonants /p/, /t/, /k/, /tʃ/, kʷ/ and three voiced stopped consonants, the bilabial /b/, the alveolar /d/ and the velar /g/, which is presented later in this section. The stops or obstruents differ from the other segments by being [-sonorant]. There is only one affricate; there are no underlying voiced counterparts for the affricate and for the /kʷ/ segment either. The inclusion of the phoneme /kʷ/ in the phonemic chart is discussed in the approximant section, §2.2.2.4.2.

The following sections describe the main phonetic realizations and issues that involve the stop consonants.

2.2.2.1.1 The feature voice

Aragon (2008) gave only voiceless stop consonants in the Akuntsú phonemic chart. However, after significantly more data were acquired, it became clear that there is some process in the language affecting voiceless and voiced segments. That is, minimal pairs that contrast in voice were found, even though there are very few cases compared to the number of minimal pairs that distinguish other consonants. The words in which speakers allow change in voicing are those that are here considered to have underlying voiceless stops,
while there are other words where speakers do not allow changing voiced stops to their voiceless counterparts, which are here analyzed as phonologically voiced consonants.

Minimal and near-minimal pairs are exemplified below for the words that contrast the voiceless velar /k/ and the voiced velar /g/, as follows:

(2.39) a. /poga/ [po ˈga] ‘tortoise’ vs. /poka/ [poˈka] ‘to burn’
b. /kõm/ [ˈkõm] ‘PROJECTIVE’ vs. /gõn/ [ˈgõn] ‘(It is) over’
c. /itʃoka/ [iˈtʃok-a] 3s=build-THV vs. /itʃoga/ [iˈtʃoga] 3s=bite
   ‘(He/she) builds it’ vs. ‘(He/she) bites it’

As for the voiced bilabial stop, there are words that have this segment in which the speakers do not allow the /b/ to be changed to its voiceless counterpart /p/. Some examples are presented below:

(2.40) a. /abobo/ [aboˈbo] ‘bird sp.’
b. /abatʃo/ [abaˈtʃo] ‘grandfather’
c. /baj/ [ˈbaj] ‘garb (made of buriti, palm fiber (sp.’)
d. /=bõ/ [=bõ] ‘DATIVE/ALLATIVE/INSTRUMENTAL’
e. /babape/ [babaˈpe] ‘gourd’
f. /ãpaba/ [ãˈpaba] ‘victoria amazonica (plant (sp.))’

Minimal and near-minimal pairs involving /p/ and /b/ are illustrated below:

(2.41) a. /i=ø-boro/ 3s=R-back [iˈburu] ‘his/her/its back’ vs. /i=poro-ka/ 3s=dig-TR [iˈpuruka] ‘to dig it’
b. /pagop/ [paˈgop’] ‘new/young’ vs. /bago/ [baˈgo] ‘ant (sp.)’
c. /i=pita/ vs. /i=bita/
   [iˈpita] [iˈbita]
   ‘(He/she) walks’ ‘its liver’

Finally, minimal and near-minimal pairs involving /t/ and /d/ are illustrated as follows:

(2.42) a. /i=dara/ vs. /tara/
   3S=unfold [ˈtara] ‘question word’
   [iˈdara] ‘to unfold it’

b. /atap/ vs. /dap/
   [aˈtap’] [ˈdap’] ‘reportative’
   ‘hair’

c. /ta  ti/ vs. /tʃ'adi/
   DEM mother [tʃaˈdi] ‘armadillo (sp.)’
   [taˈti] ‘that mother’

2.2.2.1.2 Neutralization of the feature [±voice]

The neutralization of the voicing feature occurs in the following contexts:

(i) When voiceless consonants occur after a [+nasal] segment (in boldface):

[+NASAL]

[-sonorant] → [+voice] / [+syllabic] / [+nasal ]

(2.43) a. /mepit/ [mẽ'pit’] ~ [mẽ'bit’] ‘son/daughter of woman’
   b. /komata/ [kõmẽ'ta] ~ [kõmẽ'da] ‘bean (sp.)’
   c. /āka/ [ā'ka] ~ [ā'ga] ‘like this, in that way’

(ii) voiceless consonants may alternate word-initially. Examples are presented below, where the target variation is marked in boldface:

WORD-INITIALLY
(iii) Voiceless consonants may alternate in stressed position word-medially;

WORD-MEDIANLY

[-sonorant] $\rightarrow$ [+voice] / [+syllabic] [+stressed]

(2.45) a. /ebape/ $\rightarrow$ [eba′pɛ] $\sim$ [eba′bɛ] ‘forehead’
   b. /atap/ $\rightarrow$ [a′tap′] $\sim$ [a′dap′] ‘hair’
   c. /iki/ $\rightarrow$ [i′ki] $\sim$ [i′gi] ‘water’

The opposite variation in voicing does not occur, i.e., underlyingly voiced consonants do not alternate with their voiceless counterpart in any environment.

2.2.2.1.3 Unreleased stops

In this language, the voiceless stops in coda position are unreleased [p′, t′, k′]. All the released stops occur in onset positions, both syllable-initially and intervocally.

Below, examples of unreleased stops are presented for each stop: bilabial, alveolar, and velar, respectively:

(2.46) a. /ebapap/ $\rightarrow$ [eba′pap′] ‘eye’
   b. /kijtpit/ $\rightarrow$ [kijt′pit′] ‘fish (generic)’
   c. /ek/ $\rightarrow$ [ek′] ‘house’

Unreleased consonants become voiced across word boundaries when followed by a vowel (details in section 2.4.2.1).
2.2.2.1.4 Bilabial

Underlying bilabial stop /b/ tends to assimilate the nasal feature of adjacent nasal segments. It commonly occurs through a regressive process of nasal assimilation. There are two possible rules that drive this process, as seen below:

**Rule 1:**

\[
[b] \rightarrow [m] /\left[ +\text{syllabic} \right] /\left[ +\text{nasal} \right]
\]

(2.47)  
a. /mabîâ/ [mâ`mî`a] ‘manioc flour’
b. /erêbo/ [e`rêmo] ‘for/to you’

**Rule 2:**

\[
[b] \rightarrow [m] /##_
\]

(2.48)  
/bawrape/ [mawra`pe] ‘shaker’
/baj/ [`maj] ‘buriti (palm fiber (sp.))’

2.2.2.1.5 Velar

The voiceless velar stop functions differently from the other stops in the sense that it can phonetically become a (full) glottal stop. Voiceless velars may become glottal stops initially in stressed position. Acoustically, the glottal stop, in this case, is often realized as a complete closure.\(^{41}\) Rule 1 below is applied in non-slow speech:

\(^{41}\) The glottal stop, in some contexts, can also be realized as a non-modal phonation in the vowel (see details in section 2.2.1.3.)
Rule 1 (Optional Glottal):
/k/ → [ʔ] /$__V

(2.49)  a.  /poraki/   [poraʔ]  ‘curassow (sp.)’
        b.  /kªako/   [waʔ]  ‘sweet potato’
        c.  /orokoj/   [uruʔ]  ‘tangerine’

Within morphemes, there is another rule, Rule 2, which indicates that velars may also become palatalized when followed by front vowels.

Rule 2 (Optional Palatalization):
/k/ → [kj] /__⎣⎢⎡+syllabic
        +front

(2.50)    a.  /tokej/   [tokɛj]  ‘ant (sp.)’
        b.  /kiw-kiw/   [kiw,kIw]  ‘to cut (ideophone)’
        c.  /kem/   [kɛm]  ‘breast’
        d.  /i=ø-kiɾi/   [i'kiri]  ‘its guts’

At word-boundaries, a rule of intervocalic lenition applies in which velar [k̚]
becomes [γ] in faster speech:

Rule 3 (Spirantization)
[k̚] → [γ] /V__##V

(2.51)  a.  /iki apeka/ water drink
        /i, yap-e‘ka]  ‘to drink water’
        b.  /Pupak i-mi/ Pupak OBJ.NMLZ-kill
        [pu, payi‘mi]  ‘Pupak’s killed (thing)’
        c.  /kipek a/ papaya fruit
        [kibe‘ya]  ‘fruit of papaya’

As for the example (2.51a) above, the vowel deletion rule must be undergone before this rule. The vowel deletion rule says that a vowel is deleted when two vowels that do not share all their articulatory features are encountered at a word boundary in non-slow speech,
as shown: $V_1##V_2 \rightarrow \emptyset V_2$, and thus, it occurs as following: $i\text{k}##\text{apeka} \rightarrow \text{i}k##\text{apeka} \rightarrow \text{i}y\text{apeka}$.

2.2.2.1.6 Alveolar

There are clearly phonological differences between the alveolar stop and the alveolar flap in this language, since minimal pairs and near minimal pairs are found, as in the below examples:

**WITH /o/**

(2.52) /ototo/ vs. /ororo/

[o’toto] [oro’ro]
o=ø-toto ‘cotton’
1s=R-grandma ‘my grandma’

**WITH /e/**

/ete/ vs. /erek/

[ɛ’tɛ] [ɛ’rek]
‘RELATIVE’ ‘speech’

**WITH /i/**

/iti/ vs. /iriɾi/

[i’ti] [iriɾi]
i=ø-ti ‘bird (sp.)’
3s=R-mother ‘his/her mother’

Consider the following examples:

<table>
<thead>
<tr>
<th>/t/</th>
<th>Position</th>
<th>Underlying form</th>
<th>Surface form</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medial Intervocalic</td>
<td>/atiti/</td>
<td>[əti’ti]</td>
<td>‘corn’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/enotej/</td>
<td>[ɛnə’tej]</td>
<td>‘Enotej (proper name)’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/eti/</td>
<td>[ɛ’ti]</td>
<td>‘basket’</td>
</tr>
</tbody>
</table>

42 More on section 2.4.1.
<table>
<thead>
<tr>
<th>Medial Cluster</th>
<th>/kʷatkãm/</th>
<th>[wat”kãm]</th>
<th>‘shrimp’</th>
</tr>
</thead>
<tbody>
<tr>
<td>/tɪtpe/</td>
<td>[tɪt”pe]</td>
<td></td>
<td>‘fig’</td>
</tr>
</tbody>
</table>

| /t/                    |
|------------------------|----------------------|--------------------|----------------|
| Position               | Underlying form      | Surface form       | Gloss          |
| Medial Intervocalic    | /oɾoɾo/              | [oɾo’ɾo]           | ‘cotton’       |
|                        | /bawɾo/              | [baw’ɾo]           | ‘black woodpecker (sp.)’ |
|                        | /eɾape/              | [e’ɾape]           | ‘tomorrow’      |
| Medial Cluster         | ----                 | ----               | ----            |

Voiceless alveolar stops becomes voiced syllable-initially (please, see the discussion on the neutralization of the feature [±voice] in §2.2.1.2), as seen in the following examples:

(2.53) a. /taiˈkɔp/ [taiˈkɔp’] ~ [daiˈkɔp’] ‘howler-monkey’
   b. /ɛk’top/ [ɛk’top’] ~ [ɛk’do̰p’] ‘roof’
   c. /o=ø-toa-ap/ [o̰’toa] ~ [o̰’doa] ‘my place.of.lying’

As for the voiced alveolar /d/, it may optionally become a flap through weakening (lenition), in stressed position and in non-slow speech.

(2.54) a. /tɛ’dɔ/ [tɛ’do̰] ~ [tɛ’ɾo] ‘rubber’
   b. /ka’dɔ/ [ka’do̰] ~ [ka’ɾo] ‘necklace’
   c. /əɾɔ’dia/ [əɾɔ’dia] ~ [əɾɔ’ɾia] ‘fruit (sp.)’
   d. /kobɔ’dɛ/ [kobo’dɛ] ~ [kobo’ɾɛ] ‘bamboo (sp.)’

Syllable-finally, the alveolar is unreleased and always voiceless, as seen earlier in this subsection. Across word boundary or morpheme boundary, the alveolar becomes voiced and then becomes a flap, as exemplified below in rules 1 and 2, in which position the contrast between /t/ and /ɾ/ is neutralized. The voicing rule below is also applied to other [-continuant] consonants, as seen in example (2.81) in section 2.4.2.1.
**Rule 1: Voicing rule**
[t] → [d] /V__##V

**Rule 2: Flapping**
[d] → [ɾ] /V__V

(2.22)  emo ‘also’

a. /œ=œ-mepit emo ko-a/  
   1s=R-son/daughter.of woman also ingest-THV [omẽ,pirēmō’ka] ‘my daughter also eats’
   
   ete ‘RELATIVE’

b. /œ=œ-ete ete/  
   2s=R-name REL

   -k’w a ‘TRANSITIVIZER AND PLURALIZER’

c. /i=œ-et-k’wa/  
   3s=R-name-TR.PL

   a ‘THEMATIC VOWEL’

d. /œ=œ-at-a/  
   3COR=leave-THV

   [te’k’waɾa] ‘he left’

Across morpheme boundary (2.56a) or word boundary (2.56b), if the alveolar is between vowels and one of them is a nasal vowel, the alveolar can optionally undergo the following alternations: [t] → [d] → [ɾ] → [n], where rule 1 feeds rule 2 and rule 3, respectively t → d (by rule 1); d → r (by rule 2); r → n (by rule 3).

**Rule 1: Voicing rule**
[t] → [d] /__##V

**Rule 2: Flapping**
[d] → [ɾ] /V__V

**Rule 3: Spreading of the nasality**
[ɾ] → [n] /__Ṽ
(2.56) a. /mepit-ēpit/ [mẽpirɛˈpit̚] → [mẽpinẽˈpit̚] ‘grandchild.of.woman’
     son/daughter of woman-RED
b. /i=t-et=ērom/ [itɛɾɛˈɾõm] → [itɛɾɛˈnõm] ‘(he/she) doesn’t have a name’
     3s=R-name=NEG

In summary, in root-internal position, /t/, /d/ and /l/ are found. It is possible to find
[t] and [d] in onset position and [t̚] in coda position, as allophones of the phoneme /t/, as
well as [ɛɾ] as allophones of the phonemes /ɾ/ and /d/.

2.2.2.1.7 Speech rate and lengthening of stops

Voiceless stops in the onset of medial stressed syllables have more alternations than
just shown. The allophonic variation of stops is here defined by the position of the
consonants in syllables and by speech rates. That is, in slow speech, speakers can length the
voiceless consonants. Another interesting feature resulting from a slow speech rate (and
careful speech) is that when the speakers lengthen the voiceless consonant word-medially,
the second half of the closure may become voiced.43

As for the lengthening of the consonants, two consonants intervocalically are placed
in different syllable position, the first one being placed in the coda position of the preceding
syllable and the second one remaining in the onset position of the next syllable; the second
voiceless consonant in a VC,CiV structure may become voiced, as in [o'tat̚] ~ [o'tdat̚]
‘fire’.44 The rule for this alternation is presented below:

43 Aragon (2008 apud Cabral and Aragon 2004b).
44 Instrumental analysis is being undertaken to increase the discussion on this subject matter (Aragon (In
preparation).
Optional Gemination, caused by slow speech production:
\[ \emptyset \rightarrow C_i [-\text{voice}] / VC_i [-\text{voice}]_\text{f} \]

<table>
<thead>
<tr>
<th>Sound</th>
<th>Voiced</th>
<th>Voiceless</th>
<th>Word Meanings</th>
</tr>
</thead>
<tbody>
<tr>
<td>[p]</td>
<td>~ [pp]</td>
<td>~ [pb]</td>
<td>‘my hand’</td>
</tr>
<tr>
<td>/opo/</td>
<td>[op’o]</td>
<td>[op”po]</td>
<td>‘my hand’</td>
</tr>
<tr>
<td>/ipek/</td>
<td>[i’pek']</td>
<td>[ip”pek’]</td>
<td>‘duck’</td>
</tr>
<tr>
<td>/t/</td>
<td>~ [tt]</td>
<td>~ [td]</td>
<td>‘duck’</td>
</tr>
<tr>
<td>/k’ato/</td>
<td>[k’a’to]</td>
<td>[k”at”to]</td>
<td>‘alligator’</td>
</tr>
<tr>
<td>/otat/</td>
<td>[o’tat’]</td>
<td>[ot”tat’]</td>
<td>‘fire’</td>
</tr>
<tr>
<td>/ki/</td>
<td>[i’ki]</td>
<td>[ik”ki]</td>
<td>‘water’</td>
</tr>
<tr>
<td>/iek/</td>
<td>[ie’ko]</td>
<td>[iek”ko]</td>
<td>‘vulture’</td>
</tr>
</tbody>
</table>

**Table 2.11 -** Lengthening of voiceless consonants.

The spectrogram and the waveform below illustrate a token (out of other tokens) of the word ‘duck’ *ipek*, being produced by a male speaker (the arrows mark the onset and offset of the voiceless and voiced stop closures).

**Figure 2.6a -** Spectrogram and waveform of /ipek/ [ip”b’ek’] ‘duck.’
Figure 2.6b - Expanded waveform illustrating the realization [p,b] of the word /ipek/ [ip’bɛk’] ‘duck.’

Note that the process of optional gemination is not in free variation, but rather a phonetic realization, caused by slow speech conditions, which vary among speakers.

2.2.2.1.8 Glottal Stop epenthesis

Phonologically, glottal stops in the language are not contrastive, as proposed in Aragon (2008). The glottal stop is predictable and phonetically it occurs syllable-initially and syllable-finally, depending on prosodic conditions. The glottal stop is acoustically realized either as a long and silent closure or as creaky voice. Vowels, when adjacent to glottal stops, are always laryngealized (with creaky voice). The epenthesis of glottal stops often functions to mark syllable boundary or word boundary, which varies according to speech rate and speakers. Another common environment for the epenthesis of the glottal stop is in monosyllabic words with the V(C) structure, where the glottal stop occurs word-initially:

**Rule 1 (glottal epenthesis):**

\[ \emptyset \rightarrow [?] /##__\text{V} \]

---

45 See §2.2.1.3 for creaky vowels.
In words with two vowels together and one of them is stressed, the glottal stop is obligatorily inserted, as shown:

**Rule 2 (glottal epenthesis):**

\[ \emptyset \rightarrow [ʔ] /V__V \]

(2.58) a. /ei/ [ɛʔɪ] ‘blood’
    b. /kʷaʔe/ [kʷaʔɛ] ‘pot’
    c. /eo/ [ɛʔu] ‘belly’
    d. /ai/ [aʔi] ‘caterpillar (sp.)’

The epenthetic glottal stop in the cases presented above is not due to syllable constraints, since in Akuntsũ onsetless syllables are possible (see for instance /abatʃo/ [a.ba.'tʃo] ‘grandfather’). Rather, it is used in the language to prevent diphthong formation in stressed positions, as well as to mark syllable or grammatical boundaries (as presented below). The glottal stop is often phonetically realized as creaky voice, though it can also be realized as a complete closure (see figure 2.8 below). The production of the glottal stop as a complete closure will depend on speech rate. Complete closure is often seen in slow and careful speech.
Figure 2.7 - Two spectrograms of the token /kʷai/ ‘stone’ being produced with creakiness on the left image [wa̰ʔi:] and with a complete closure as observed on the right [w̱ʔi].

In the spectrogram on the left, the glottal stop is realized as an entirely creaky phonation with strongly constricted voicing. Note, however, that in the right image the glottal stop is manifested as a complete closure and the boundary of the onset and offset vowel is highly marked by intense glottal feature, whereas the vowel [i] in coda position presents heavy creakiness over the vowel, and not only in its boundary. This is explained by the stress, which in this case is placed on the last syllable.

Below, we see the glottal stop being realized as heavy creakiness to assign word-boundary:

Figure 2.8 - Spectrograms of /apa-ra-tʃo/ [ʔapa-ra-tʃo] ‘big banana’ where the intense constricted glottis, marked by the arrow, shows the grammatical boundary.

81
Thus, the above spectrogram illustrates a word boundary marked by creakiness. The heavily constricted activity falls at the syllable-onset position of the second word of the phrase (in boldface) [aːʃo].

GLOTTAL STOP AMONG TUPARÍAN LANGUAGES

Most of the Tupían languages have been described as languages that do present at least surface glottal stops. Among the Tuparían languages, the glottal stop has been analyzed as follows:

<table>
<thead>
<tr>
<th>LANGUAGES</th>
<th>PRESENCE OF LARYNGEAL CONSONANT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Makuráp</strong>&lt;br&gt;Braga (1992, 2005)</td>
<td>There are no phonemic glottal stops; phonetically glottal stops were not discussed.</td>
</tr>
<tr>
<td><strong>Mekéns</strong>&lt;br&gt;Galucio (2001)</td>
<td>There is no phonemic glottal stop, though it is inserted in the phonological chart as a major allophone.</td>
</tr>
<tr>
<td><strong>Wayoró</strong>&lt;br&gt;Nogueira (2011)</td>
<td>Glottal stop is not considered in the phonological analysis.</td>
</tr>
</tbody>
</table>

Table 2.12 - Glottal stops among Tuparían languages.46

46 Even though Proto-Tupían had phonemic glottal stop, glottal stop is phonetic only, not phonemic, in Akuntsú, as it is in other Tuparían languages (as seen in the table 2.12).
2.2.2.2 Affricate

The only underlying affricate in Akuntsú is the alveopalatal /tʃ/, with no other sibilants in the language. The /tʃ/ contrasts with the other stops, which is briefly shown below:

(2.59) a. /tʃã/ [ˈtʃã] ‘to knead’
   /tam/ [ˈtɛm] ‘full’
   /pekã/ [peˈkũ] ‘cold’

b. /tʃe/ [tʃe] ‘come’
   /te/ [ˈte] ‘FOCUS’
   /ape/ [aˈpe] ‘path/skin’

c. /tʃĩkwa/ [ˈtʃĩkwa] ‘to kiss’
   /-tin/ [ˈtĩn] ‘DIMINUTIVE’
   /kin/ [ˈgĩn] ‘to sift’
   /tira/ [tiˈra] ‘flower (generic)’

d. /itʃoga/ [iˈtʃoga] ‘(he/she) bites it’
   i=tʃoga 3s=bite
   /toga/ [tuˈga] ‘belly button’
   /poga/ [puˈga] ‘tortoise (sp.)’

Note that even though the examples above show instances of affricates syllable-initially, they never appear syllable-finally. Note also that affricates do not undergo gemination in the language as the other stops do.

It is interesting to note here that the names from Portuguese that have sibilants are nativized with the affricate, as for example, [mãtʃeˈru] ‘Marcelo’, [dʒamõˈew] ‘Samuel’ and [tʃamaˈra] ‘Samara.’
2.2.2.3 Nasals

The underlying nasals are /m/, /n/ and /ŋ/. The nasals [m] and [n] occur syllable-initially, both word-medially and word-initially. The underlying form /ŋ/ occurs word-finally,\(^{47}\) where it is the only place that /m/, /n/ and /ŋ/ nasal phonemes contrast.

(2.60) **WORD-INITIALLY**

<table>
<thead>
<tr>
<th>/m/</th>
<th>/n/</th>
<th>/ŋ/</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ma/</td>
<td>[ma]</td>
<td>‘to/put/spill’</td>
</tr>
<tr>
<td>/mō-</td>
<td>[mō-]</td>
<td>‘CAUSATIVE’</td>
</tr>
</tbody>
</table>

**WORD-MEDIA LALLY**

| /emo/ | [‘êmû] | ‘too/also’ | /enō/ | [ê’nû] | ‘to you’ |
|       |       |       | en=ō |       | 2s=ALL |
| /eimi/ | [ej’mi] | ‘your game’\(^ {48}\) | /ini/ | [î’ni] | ‘sting’ |
| e=i-mi |       |       |       |       |       |
| 2s-OBJ.NMLZ-kill |       |       |       |       |       |

**WORD-FINALLY**

<table>
<thead>
<tr>
<th>/m/</th>
<th>/n/</th>
<th>/ŋ/</th>
</tr>
</thead>
<tbody>
<tr>
<td>/anim/</td>
<td>[anîm]</td>
<td>‘worm (sp.)’</td>
</tr>
<tr>
<td>/kem/</td>
<td>[kēm]</td>
<td>‘cold’</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Nasal vowels that precede stops word-internally tend to assimilate the feature place of the stops through a regressive homorganic process. As previously discussed in section 2.2.1.2, the speaker is producing a nasal segment syllable-finally as a result of progressive assimilation of the [nasal] feature that spreads from the segment [m] up to the vowel, and

\(^{47}\) It may occur word-medially by a regressive assimilation process of the nasal feature, when preceded by a velar, as in /peniket/ [penḭ̌két] ‘ladybug (sp.)’. See details in section 2.2.1.2.

\(^{48}\) Lit. Your killed thing.
then the resulting [Ṽ] goes further to also create the surface nasal consonant. See the following examples:

(2.61)  a. /mepit/  [mêm.'bit']  ‘son/daughter.of.woman’
       b. /meti/  [mêm.'di]  ‘maripa (fruit sp.)’
       c. /makora/  [mãŋ.'ku.ra]  ‘squirrel (sp.)’

However, note that underlying stops do not undergo the process of homorganic assimilation with preceding stops at word boundaries, as shown below:

(2.62)  /kem#ki/  [kêm'ki]  not *[kêŋ'ki]  ‘breast milk’
breast##liquid

2.2.2.4 Flap, approximants and labialized velar

There is only one underlying flap /ɾ/ and two approximants, /j/ and /w/, in the language. The fact that Akuntsú has only one liquid is typical of Tupían languages (Rodrigues 1999:113), which usually have only one liquid phoneme. Firstly I describe the flap and then the approximants are analyzed.

2.2.2.4.1 Flap

The voiced alveolar flap /ɾ/ in Akuntsú occurs syllable-initially in intervocalic position. As was briefly mentioned above, the flap is found neither word-initially nor word-finally. Some examples of the occurrence of the flap are presented below:

(2.63)  a. /oboro/  [o.'bu.ru]  ‘my back’
       o=ø-boro
       1s=R-back
       b. /takirap/  [tɔ.'ki.rap’]  ‘spider-monkey’
       c. /tirò/  [ˈti.rɪ]  ‘two’
       d. /era.pe/  [e.'ra.pe]  ‘tomorrow’
       e. /arato/  [a.ra.'to]  ‘cocoa’

49 Attalea maripa
In nasal environments the flap may be nasalized [ɾ̃] or may become the alveolar nasal consonant [n], which are the two possible variants in this environment.

(2.64) a. /aramîra/ [ɾ̃.ɐ̃.ˈmã.ɾã] → [ɾ̃.nã.ˈmã.nã] ‘woman’
b. /niram/ [ɾ̃.ˈmã] → [ɾ̃.ˈnã] ‘to defecate’
c. /erê/ [ɾ̃.ˈɛ] → [ɾ̃.ˈnɛ] ‘2S.EM’
d. /jërom/ [ɾ̃.ˈũ.] → [ɾ̃.ˈnûm] ‘DEM’

Depending on speech events, vowels may be deleted when unstressed (§2.2.1.7 for interaction among vowel, speech rate and stress); however, when the vowel is followed by a flap [ɾ], there are two options: (1) the vowel is not deleted in conformity to syllable constraints, since a flap is not allowed syllable-initially; or (2) the flap has to undergo some type of process. In the case of for example the word /aramîra/ ‘woman’, [ɾ] becomes the alveolar nasal [n] to further undergo the vowel deletion process\(^{50}\) word-initially, as seen in the following: [ɾ̃.ɐ̃.ˈmã.ɾã] → [ɾ̃.ˈmã.ɾã] → [ɾ̃.ˈnã.ɾã] → [ɾ̃.ˈnã.mã.ɾã] ‘woman’.

### 2.2.2.4.2 Approximants and the labialized velar

In this section the approximants will be described. First, arguments will be provided to explain the insertion of the labialized velar in the phonological chapter. Secondly, the distribution of /j/ will be presented (2.2.2.4.2.2). A comparison with earlier studies will be also summarized along the subsections.

#### 2.2.2.4.2.1 /w/ and /k̚w/

Aragon (2008) found two underlying approximants in Akuntsú: the labiovelar /w/ and the palatal /j/. For the labiovelar, three surface forms were described: [w], [k̚w] and [g̚w], conditioned by their position in the syllable, as shown in the following:

---

\(^{50}\) See vowel deletion rule in section 2.4.1.1.
(2.65) /w/ (Aragon 2008 (adapted))

**WORD-INITIALLY:** [w] ~ [kw] ~ [gw]

(a) [kwəˈʔi] ~ [gwəˈʔi] ~ [wa.ˈʔi] ‘stone’
[kw ɛ] ~ [gw ɛ] ~ [wɛ] ‘game meat’
[kwa.ˈʔo] ~ [gwa.ˈʔo] ~ [wə.ˈʔo] ‘guan (sp.)/ sweet potato’

**INTERVOCALICALLY:** [kw] ~ [gw]

(b) [a.ˈkwə] ~ [a.ˈgwə] ‘yam (sp.)’
[e.ˈkwit] ~ [e.ˈgwit] ‘honey’
[kwə.ˈɾɛp] ~ [gwə.ˈɾɛp] ‘black/dark’

**SYLLABLE-FINALLY:** [w]

(c) [a.ˈpaw] ‘grub (sp.)’
[baw.ɾa.ˈpɛ] ‘shaker’

Based on these examples, the question to be answered is: what is the basic (underlying) form of this segment? Is it [kw] or [w], or can both be considered underlying in this language? In order to answer the question, I discuss possible hypotheses for considering [w] to be the basic form (the underlying form), as well as possible arguments for considering [kw] the basic form. At the end of this discussion, I justify my decision based on the most convincing of the hypotheses considered in this current analysis.

**HYPOTHESIS 1:** if one considers [w] the basic form, then it would be necessary to account for the variation between [kw] and [w] word-initially and the occurrence of [kw] intervocalically.

With regard to the alternations between [kw] and [w] found word-initially and the realization of [kw] intervocalically, one would explain that the labiovelar approximant is strengthened to a labialized voiceless velar word-initially and obligatory strengthened...
intervocally. In turn, it would correctly describe the examples illustrated above and reproduced below for clarification:

**WORD-INITIALLY:** \([w] \sim [kw] \sim [gw]\)

- \([kw\.ʔ̂i] \sim [gw\.ʔ̂i] \sim [wa\.ʔ̂i]\) ‘stone’
- \(['kwɛ] \sim ['gwɛ] \sim ['we]\) ‘game meat’
- \([kw\ɛ\.ko] \sim [gw\ɛ\.ko] \sim [wa\ɛ\.ko]\) ‘guan (sp.)/sweet potato’

**INTERVOCALICALLY:** \([kw] \sim [gw]\)

- \([a\.ˈkw a] \sim [a\.ˈgw a]\) ‘yam (sp.)’
- \([ɛ\.ˈkwɪt̚] \sim [ɛ\.ˈgwɪt̚]\) ‘honey’
- \([kwɛ\.ˈɾɛp] \sim [gwɛ\.ˈɾɛp]\) ‘black/dark’

Note that if \([kw]\) occurred only in word-medial position, we would say that \([kw]\) and \([w]\) were in complementary distribution; however, this is not the case, because \([kw]\) is optionally found in word-initial position in variation with \([w]\). By accepting this hypothesis, one would have to explain the motivations that trigger the syllable-initial fortition. An alternative possible motivation of the reinforcement process could be the fact that the velar release burst provides an important clue for the perception of the labiovelar \([w]\), as \([-\text{vocalic}]\), in opposition to vowels, that are \([+\text{vocalic}]\); the fortition process would, then, increase the perception of the consonant, as well as avoiding possible missyllabification, i.e., to avoid placing \([w]\) in coda position in fast speech, e.g. \(*[aw\.ˈa]\) rather than \([a\.ˈwa]\) ‘yam (sp.)’.

A parallel argument can be offered to the fortition hypothesis.⁵¹ There is a change

---

⁵¹ Note that this is a hypothesis to account for the variations ((\([kw]\) ~ \([w]\)) diachronically; however, I want to clarify that, for now, it cannot be considered strong evidence due to the lack of data to compare them historically. Nonetheless, I think that it is worth mentioning, since it may be a case for further investigation.
from Proto-Tupían (PT)\textsuperscript{52} where \(*\text{w} > \text{k}\) in Akuntsú, as in \(*\text{w}up > [\text{k}up'] ~ [\text{kop}']\) ‘red’, where we would argue a possible intermediate stage as in: \(*\text{w}up > \text{k}^\text{w}up > \text{up} (/\text{kop}/). This change would be found only in word-initial position followed by a rounded vowel:\textsuperscript{53} \(*\text{w} / [+\text{round}] [+\text{vocalic}] > [\text{k}]\) in the language. If we consider other environments where there is no adjacent back round vowel, as in PT \(*\text{(w)}aku > [\text{k}^\text{w}a'ku] ~ [\text{w}a'ku]\) ‘guan (sp.)’, the alternation between \([\text{k}^\text{w}]\) and \([\text{w}]\) is still attested in Akuntsú.

However, two other arguments may weaken this hypothesis. Firstly, one would have to account for words that do not have the overlap between \([\text{k}^\text{w}]\) and \([\text{w}]\) word-initially, where there is only \([\text{w}]\) is realized word-initially: [‘\text{w}ɛn] ‘to finish,’ [\text{wata}'\text{wa}] ‘bird sp. (onomatopoeic),’ [‘\text{w}ɛrũ,\text{w}ěrũ] ‘bee (sp.),’ [\text{w}ā] ‘near’ [\text{wibi}] ‘to slide.’ Besides, minimal and near-minimal pairs can be also found word-initially (though few cases were found), as in:

\begin{itemize}
\item[(2.66) a.] /\text{k}^\text{w}i\text{ri}/ \quad \text{vs.} \quad /\text{wiri}/ \\
[‘\text{k}^\text{w}i\text{ri}] \quad \text{‘day/clean/empty’} \quad \text{[‘\text{wiri}]} \quad \text{‘to curl’}
\item[b.] /\text{k}^\text{w}e/ \quad \text{vs.} \quad /\text{wen}/ \\
[‘\text{k}^\text{w}e] \quad \text{‘game meat’} \quad \text{[‘\text{wen}]} \quad \text{‘to finish’}
\item[c.] /\text{k}^\text{w}a\text{m}/ \quad \text{vs.} \quad /\text{wā}/ \\
[‘\text{k}^\text{w}a\text{m}] \quad \text{‘solitary tinamou’} \quad \text{[‘\text{wā}]} \quad \text{‘near’}
\end{itemize}

Secondly, a phoneme \(*\text{k}^\text{w}\) has been postulated in Proto-Tuparí (Galucio and Nogueira 2011, Moore and Galucio 1994).

**HYPOTHESIS 2:** If one considers \([\text{k}^\text{w}]\) to be the basic form, it would be plausible to

\textsuperscript{52} The Proto-Tupían examples used in this section are from Rodrigues (2007b) and Rodrigues and Cabral (2012).

\textsuperscript{53} Investigation is needed in order to affirm whether or not it is considered a regular change.
argue that there are two different phonemes /kʷ/ and /w/ in Akuntsú; if one argues in favor of /kʷ/ as the underlying form, this analysis would also lead to the postulation of /w/ as a phoneme, in order to justify the instances where /w/ occurs syllable-finally (and does not alternate in those words with [kʷ]; /kʷ/ would occur only in syllable-initial position and /w/ both syllable-initially and syllable-finally. In the examples shown above, where [kʷ] and [w] varies word-initially, the alternations between [kʷ] and [w] would be justified by the loss of the velar closure before silence through a lenition process. Thus, in light of the discussion presented above, I assume that there is an underlying phoneme /w/ and a separate phoneme /kʷ/ in the language, as argued in hypothesis 2 above.

(2.67) /kʷ/

WORD-INITIALLY: [w] ~ [kʷ] ~ [gʷ]

(a) /kʷai/  [kʷaʔi] ~ [gʷaʔi] ~ [waʔi] ‘stone’
/kʷe/  [kʷe] ~ [gʷe] ~ [we] ‘meat’
/kʷako/  [kʷaʔko] ~ [gʷaʔko] ~ [waʔko] ‘guan (sp.)/sweet.potato’

INTERVOCALICALLY: [kʷ] ~ [gʷ]

(b) /akʷa/  [aʔkʷa] ~ [aʔgʷa] ‘yam (sp.)’
/ekʷit/  [eʔkʷiʔ] ~ [eʔgʷiʔ] ‘honey’
/kʷerep/  [kʷeʔep] ~ [gʷeʔep] ‘its stripes’

(2.68) /w/

WORD-INITIALLY:

(a) /wibi/  [wibi] ‘to slide’
/watawa/  [waʔtawa] ‘bird (sp.)’
/wá/  [wá] ‘near’

WORD-MEDIALLY:

(b) /awtʃe/  [awtʃe] ‘peccary’
/bawrape/  [bawrapε] ‘shaker’
\(/\text{awkap}/ \quad [\text{awkap}^\prime] \quad \text{‘flute (sp.)’} \\
\(/\text{awjap}/ \quad [\text{aw’jap}^\prime] \quad \text{‘fly (sp.)’} \)

**WORD-FINALLY:** only \([w]\) is found:

(c) \(/k^w\text{ew}/ \quad [\text{’k}^w\text{ew}] \quad \text{‘shadow’} \\
/\text{apaw}/ \quad [\text{a’paw}] \quad \text{‘grub (sp.)’} \\
/\text{pow-pow}/ \quad [\text{pow’pow}] \quad \text{‘owl (sp.)’} \\

The approximant \(/w/\) and the labiovelar stop \(/k^w/\) can both be distinguished from \(/k/\) with minimal pairs:

(2.69) a. \(/k^w\text{i}/ \quad [\text{’k}^w\text{i}] \quad \text{‘axe’} \\
/\text{wibi}/ \quad [\text{’wibi}] \quad \text{‘to slide’} \\
/\text{ki=}/ \quad [\text{ki}] \quad \text{‘1PL.INCL’} \\

b. \(/-k^w\text{a}/ \quad [\text{’k}^w\text{a}] \quad \text{‘TR.PL.’} \\
/-\text{ka}/ \quad [\text{’ka}] \quad \text{‘TR’} \\
/\text{wā}/ \quad [\text{’wā}] \quad \text{‘near’} \\

c. \(/k^w\text{e}/ \quad [\text{’k}^w\text{e}] \quad \text{‘game’} \\
/\text{ke}/ \quad [\text{’k}^1\text{e}] \quad \text{‘DEM’} \\
/\text{wen}/ \quad [\text{’wēn}] \quad \text{‘to finish’} \\

Now, we turn to answer the following question: Why should we consider the form \([k^w]\) a unit consonant rather than a sequence as in \([kw]\)?

Three criteria are discussed here that may shed light on this matter: (1) productivity, (2) syllable structure, and (3) timing duration of \(Cw\).

Ladefoged (1968) and Chan (1985) have taken the productivity of \(Cw\) combinations in languages as an argument for choosing \(Cw\) as part of the phonemic inventory of languages (cited in Suh (2009:9)). In languages that have several instances of \(Cw\) with different stop segments (with labials, alveolars and velars), they argued that to minimize the numbers of phonemes in the language (economy),\(^{54}\) it would be plausible to claim that

\[^{54}\text{Languages tend to have symmetrical inventories (though asymmetrical inventories are also possible, while less common) in order to maximize speakers’ perception and minimize the articulatory efforts by selecting}\]
sequence Cw is a cluster, rather than a unit segment. Akuntsú Cw combinations only occur when C is a velar, which means that there is no wide range of Cw consonantal segments in this language, which lead us to argue that in the case of Cw, /w/ is realized as a secondary articulation of labialization, rather than as a cluster.

Another criterion is syllable structure in this language. Akuntsú has no complex onsets. The syllable pattern in this language is (C)V(C); vowels always occupy the head of the syllable (nucleus position); the onset position can be occupied by a single consonant (C)V; the coda position can be occupied by a consonant V(C). Thus, if one were to consider \( k + w \) as a sequence of two consonants, this would go against the phonotactics of this language, where complex onsets are not allowed.

A third criterion to be analyzed is the timing duration of the Cw combination acoustically (Ladefoged and Maddieson 1996). By comparing the timing duration of a CVw with CwV, it is possible to see from spectrograms observation that the CVw has a greater duration than CwV—almost 100 ms. of difference in duration.

In turn, the three criteria above imply that in Cw combinations, [w] is realized as a secondary articulation of labialization, i.e., Cw is a unit segment.

### 2.2.2.4.3 Palatal /\( j \)/

There is one palatal in the language, /\( j \)/, which can be distinguished from /w/ as well as from /tʃ/ by means of minimal pairs.

\[
\begin{align*}
(2.70) \quad & a. \quad /jat/ \quad \text{[} j\text{at}\text{]} \quad '2\text{PL}' \\
& /w\text{ā}/ \quad \text{[} w\text{ā}\text{]} \quad '\text{near}' \\
& b. \quad /j\text{ā}/ \quad \text{[} j\text{ā}\text{]} \quad '\text{to sit/stay, sitting}'
\end{align*}
\]

vowels and consonants that are more functional and more economical (Chomsky and Halle 1968; Clements 2003; Donegan and Stampe 2009).
Approximants are the consonants that have more affinity with vowels, especially because they also can undergo nasal harmony, like vowels do. There are two nasal surface forms for the palatal consonant [j] when adjacent to a nasal sound: [ŋ] or [ɲ]. The nasal allophones vary freely when adjacent to nasal consonants or vowels, as in the following example:

\[(2.71) \quad /tʃajã/ \quad [tʃãˈjẽ] \sim [tʃãˈɲẽ] \quad \text{‘earring’} \]
\[/jen/ \quad [jẽn] \sim [ɲẽn] \quad \text{‘excrement/stinky’} \]
\[/pakajã/ \quad [pəkẽjẽ] \sim [pəkẽɲa] \quad \text{‘agouti (sp.)’} \]
\[/jõ/ \quad [jũ] \sim [ɲũ] \quad \text{‘here’} \]

As visible in the data presented above, palatal approximants are also reinforced and may become a nasal consonant either word-initially or in intervocalic position.

### 2.3 Phonotactics

Aragon (2008) described the syllable pattern of this language as (C)V(C). It is possible to find syllables of the shapes /CVCC/, /CVC/, /CV/, /VC/, and /V/. The language does not have complex onsets. Vowels always occupy the head of the syllable (the nucleus). The nucleus is always occupied by only one vowel. Syllables can have more than one mora; the onset position can be occupied by only one consonant, (C)V. Only unreleased voiceless stops and nasals /m, n, ŋ/ occur in coda position, whereas /l/ and /ʃ/ can only occupy onset position. The syllable structure types are illustrated in table 2.13:
As for the coda position, there is an exception in the language, where two consonants can occupy the coda, as in V(C1)(C2). In this position, C1 has to be the palatal glide [j] and C2 a voiceless alveolar. A list of words that has this syllable pattern is presented below:

<table>
<thead>
<tr>
<th>V(C1)(C2)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>/kojt.pe/</td>
<td>‘older.sister’</td>
</tr>
<tr>
<td>/kijt.pit/</td>
<td>‘fish (generic)’</td>
</tr>
<tr>
<td>/kijt/</td>
<td>‘land/salt’</td>
</tr>
<tr>
<td>/aj-t/</td>
<td>‘(the) cajá’</td>
</tr>
<tr>
<td>/ojt.pe/</td>
<td>‘hat’</td>
</tr>
</tbody>
</table>

The following spectrogram and waveform captures the pronunciation of the word /kojtpe/ ‘older.sister.’
2.3.1 Constraints

Below, we illustrate the phonemes according to their possible places in the syllable structure of this language.

\[
\begin{array}{c}
\text{Onset} \\
\sigma
\end{array}
\quad
\begin{array}{c}
\text{Rhyme (p)} \\
\text{Nucleus}
\end{array}
\quad
\begin{array}{c}
\text{Coda} \\
\text{C}_1 \\
\text{V} \\
\text{C}_2
\end{array}
\]

\[ [p, b, t, d, k, g, \mathring{t}, \mathring{d}, \mathring{z}, m, \text{All oral and nasal vowels} [p^\mathring{a}, t^\mathring{a}, k^\mathring{a}, m, n, \eta, ?, w, j] n, \mathring{n}, \mathring{r}, j, \mathring{j}, w, \mathring{w}, \mathring{k}, \mathring{g} ] \]

**Figure 2.10** - Syllable structure and the distribution of allophones within the syllable.
Note above that the syllable allows many more consonants in onset position than in coda position. All underlying consonants, except /ŋ/, are allowed in C₁ position. Syllable-finally, only unreleased stops, the nasal /ŋ/, and approximants are found. When a voiceless stop consonant appears word-internally, as in VCV́, phonetically, it can optionally become VCICiV, which is syllabified with the first C_i forming the coda of the first syllable and the second C_i being the onset of the second syllable.

As for the voicing of stops allowed in sequences of consonants (which is permissible only word-internally), the language only allows a C₁ stop to be voiceless. In a sequence of consonants word-internally, such as in /pitkip/ ‘neck’/ or /titpe/ ‘fig,’ the stop consonant in coda position is always voiceless. Strictly speaking, the possible surface forms are: [pit’kĭp] but never *[pid’kĭp].

For the geminate consonants, there are cases attested morpheme-internally and across morpheme boundaries. ⁵⁵ Note that geminate consonants word-medially are always heterosyllabic. Voiceless stops and the nasals /m/ and /n/ geminate word-medially in slow or careful speech, where a single segment is syllabified as the coda of the first syllable and as the onset of the next one.

The discussion above leads us to explain why the order for two stops can be C₁voiceless-C₁voiced (as well as C₁voiced-C₁voiceless), but not C₁voiced-C₁voiceless.

With syllabification in Akuntsú, it is possible to assume that when a voiceless-voiced consonant is produced, the voiceless one is re-syllabified and placed at the coda of the preceding syllable. The voiced consonant remains in the onset position. In this way, the

⁵⁵ Across word boundaries, C_iC_i tends to be glottalized C_i#C_i → C_i’#C_i, as in for example: [tara ɛmɛn’na] ‘who is your husband?’
voiceless consonant placed in coda position cannot alternate between voiceless and voiced
when syllable-final; however, the consonant that occupies the onset position can become
voiced.

Note that at an underlying level, sequences of surface C\textit{voiceless-C}_\textit{voiced}
constitute single intervocalic consonants, at the onset of the second syllable; however,
phonetically, they appear to have a different status, namely as both the coda of the preceding
syllable and the onset of the following one, as in [ot\’.\ ’tat\_] and [ot\’.\ ’dat\_].

This means that the analysis of phonetic geminate consonants falls under the same
process of syllabification shown above for the voiceless-voiced cluster, whereas the
geminates are a sequence of two identical consonants with a syllable boundary placing them
in two different syllables. In accordance with this discussion, it is reasonable to assume that
the voiceless geminate consonant can alternate between [tt] ~ [td], with the [t] ~ [d] final
part of these becoming the onsets of non-initial stressed syllables.

Another note involving syllabification is the one that concerns unreleased
consonants across word boundaries. Medial consonants that precede a vowel are syllabified
as onsets rather than as codas. Some examples illustrating this are presented below:

| (2.72) | a. /kip=erom/ wood/stick=NEG | [ki.\textit{be}.\textit{rōm}] | ‘(There is) no wood’ |
| b. /kem-\textit{atfo}/ breast-INT | [k\textit{ē}.\textit{ma}.\textit{tjū}] | ‘big breast’ |
| c. /\textit{o}=\textit{ø}-\textit{anām} at\textit{fjī}/ 1s=R-head pain | [\textit{wā}.\textit{nā}.\textit{ma}.\textit{tjī}] | ‘my head hurts’ |
| d. /kij\textit{tpit-\textit{atfo}/ fish-INT} | [kijt.\textit{pi}.\textit{ra}.\textit{tjō}] | ‘big fish’ |
| e. /kip t-\textit{ep e}\textit{i/ wood/stick R-leaf blood} | [kip.\textit{te}.\textit{be}.\textit{ʔi}] | ‘the blood of the wood’s leaf’ |
2.4 Phonological processes

In this chapter, we give our attention to the remaining processes at the segmental level that involve, in particular, vowels and consonants across word boundary (§2.4.1 and §2.4.2 respectively), as well as reduplication processes (§2.4.3). Stress assignment under morphological processes and in compounds is accounted for at the suprasegmental level (§2.4.4).

2.4.1 Vowels

2.4.1.1 Vowel deletion

Two situations have been identified so far where vowels are deleted across word boundaries. The first case is when two sequences of identical vowels come together across a word boundary. The process is described in Rule 1.

Rule 1: vowel deletion

\[ V_1 \rightarrow \emptyset /\_\_\#\#V_1 \]

The examples below show that instead of coalescing to create underlying long vowels, two identical vowels are reduced to a single vowel, as shown in (§2.7.2):

(2.73) a. /e=ø-toa-ap/ 2s=R-lay-NMLZ  
\[ [\text{ɛˈtoap}^\prime] \sim [\text{ɛˈdoap}^\prime] \]  ‘your place.of.lying’

b. /imimere et[e]/ Omerê DIFF  
\[ [\text{ɛmɛ,meɛre}\ 't[e}] \]  ‘over the Omerê’

c. /eme emo/ DEM also  
\[ [\text{ɛˈmɛmu}] \]  ‘this too’

However, in cases such as the one shown below, where the deletion of the vowel may affect the grammatical content, vowels with the same articulatory quality are not
deleted by the vowel deletion processes; rather, the quality of one of the vowels is shifted or
a glottal stop is inserted, as in the following examples:

(2.74) a. /e=ø-ebapap/ 2S=R-eye [ɛˌebaˈbap] ‘your eye’
b. /te=ege/ 3COR=stand.up [teˈɛge] ‘She/he stands up’
c. /o=ø-ō/ 1S=R-tongue [oʔō] ‘my tongue’

The other identified case of vowel deletion is when two vowels that do not share all
their articulatory features are encountered at a word boundary in non-slow speech.

**Rule 2: vowel deletion**

\[ V_1 \rightarrow \emptyset/C\_\#\#V_2 \] (fast speech or casual speech)

(2.75) a. /te=ø-boro etʃe/ 3COR=R-back DIFF [teˌburɛˈtʃɛ] ‘It is over his back’
b. /iki apeka/ water drink [iˌiʃapeˈka] ‘It drinks water’
c. /mō-atʃo-a/ CAUS-bathe-THV [mādʒɔa] ‘to cause someone to bathe’

**2.4.1.2 The effect of the thematic vowel a**

In Akuntsú, there is a thematic vowel \( a \) (Aragon 2008). This thematic vowel attaches
only to verb stems.\(^{56}\) The thematic vowel changes the original phonological form of the verb
stem to which the thematic vowel is attached so that the verb stem now ends in \( a \).

With the addition of the thematic vowel \( a \), there are two phonological processes
involved: (1) the deletion of the final vowel of the verb, if it is [-high]; (2) the deletion of the
final consonant; and (3) vowel quality change to [+high] when it is [-high, -low].

\(^{56}\) See details in section 5.12.
(1) Deletion of the final vowel of the verb root

\[
\begin{align*}
\{+[\text{syllabic}]\} & \rightarrow \emptyset /C _{-}##-a \\
\{[-\text{high}]\} & 
\end{align*}
\]

(2.76) (a) /ko-a/ \rightarrow [ka]  
/apara ko-a on/ \rightarrow [apara ka on]  
banana ingest-THV 1s  
‘I eat bananas’

Verbs with high vowels do not undergo the vowel deletion process, as illustrated in the example (2.77):

(2.77) /mi-a/ \rightarrow [mia]  
/en tawt[je mi-a kom]/ \rightarrow [ên tawdze mia kôm]  
2s peccary kill-THV PROJ  
‘You're going to kill the peccary’

Now let us turn to the deletion of the final consonant of the verb root when the thematic vowel is applied (in boldface), as presented below:

(2) The deletion of the final consonant

\[
(p) \rightarrow \emptyset /CV_{-}##-a \\
\text{(only if the coda consonant is} [p] \text{and the syllable is CVC)}
\]

(2.78) a. /kwep-a/ \rightarrow [kwia]  
/karow te=kwep-a âka kota/  
Carol 3COR=climb-THV that.way go.up  
[karow teg'ia òga kuta]  
‘Carol climbs, that way, (she) goes up’

b. /tʃop-a/ \rightarrow [tʃoa]  
/konibu erek-k'awak tʃop-a on/  
Konibú speak-TR.PL sound see-THV 1s  
[Konibú erek'awak' dʒoa ôn]  
‘I'm going to talk to Konibú’  
Lit: I'm going to see the sound (that) Konibú speaks.

However, if the syllable is VC, the rule (2) above does not apply and the final consonant is not deleted after the addition of the thematic vowel to the verb.
(2.79) /ip-a/ → [ipa]  
/erape o=ip-a kom/ [erape oiba kôm]  
tomorrow 1s=come.back-THV PROJ  
‘I will come back tomorrow’

As for alveolars, when in coda position, they become a flap\(^{57}\) when the thematic vowel is inserted, as in the following examples:

(2.80) a. /et-a/ → [era]  
/Tjəruj te=et-a/  
Tjəruj 3COR=sleep-THV [tʃəruj te\(^7\)ra]\(^{58}\)  
‘Tjəruj sleeps’

b. /tʃet-a/ → [tʃɪra]  
/Aremaw te=tʃet-a/  
Alemão 3COR=leave-THV [aɾemaw tetʃɪra]  
‘Alemão left’

In addition, when the thematic vowel is added to the verbal root, vowels tend to become [\(+\)high], if the verbal root is (C)VC.

(3) **Vowel quality changing**

\[\begin{array}{|c|c|}
\hline
\text{[+syllabic]} & \text{[-low]} \\
\text{[-high]} & \rightarrow \text{[+high]} /\text{(C)}\_\text{C\#-a} \\
\hline
\end{array}\]

This can be seen, for example, in the verbs ‘to go away’ /tʃet-a/ → [tʃɪra] and ‘to climb’ /kʷep-a/ → [kʷɪa].

Rule 3 (vowel quality changing) counterbleeds rule 2 (deletion of final consonant), since if the deletion of consonant were to apply first, rule 1 (deletion of the vowel) would delete the [-high] vowel, and this is not what happens; compare table 2.15 on the right with the table 2.16 on the left (which shows wrong rule ordering):

\(^{57}\) See also section 2.2.2.1.6 where the obligatory flap rule is described.

\(^{58}\) It is also possible to find [tʃəruj te\(^7\)ra].
<table>
<thead>
<tr>
<th>Underlying form</th>
<th>/kʷep-a/ ‘to climb’</th>
<th>Underlying form</th>
<th>/kʷep-a/ ‘to climb’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vowel quality changing</td>
<td>kʷipa</td>
<td>Deletion of the final consonant</td>
<td>kʷea</td>
</tr>
<tr>
<td>Deletion of the final consonant</td>
<td>kʷia</td>
<td>Deletion of the final vowel</td>
<td>kʷa</td>
</tr>
<tr>
<td>Deletion of the final vowel</td>
<td>----</td>
<td>Vowel quality changing</td>
<td>----</td>
</tr>
<tr>
<td>Phonetic Output</td>
<td>[kʷia]</td>
<td>Phonetic Output</td>
<td>*[kʷa]</td>
</tr>
</tbody>
</table>

Table 2.15 - Rules ordering.

Table 2.16 - Wrong ordering of rules.

### 2.4.2 Consonants

#### 2.4.2.1 Voicing

Unreleased consonants become voiced across word boundaries when followed by a vowel. See section 2.2.2.1.6 for details regarding the derivation rule applied in the example (2.81a).

**Rule: Unreleased consonants**

\[ C_{[+unreleased]} \rightarrow [+voice] /\_\_\#\#V \]

(2.81)  

*a. /mepit=erom/ [mê,pire´rôm] ‘There is no son/daughter’

    son/daughter.of.woman=NEG

*b. /atap=erom/ [a,tabe´rôm] ‘bold’

    hair=NEG

    Lit: There is no hair

*c. /o=t-ek etʃe/ [u,tege´tʃe] ‘over the house’

    1s=R-house DIFF

#### 2.4.2.2 Consonant reduction

When two identical consonants are found across a word boundary, they are reduced to only one segment in normal or fast speech. Examples follow:

(2.82)  

*a. /atap perek/ [ata´perek’] ‘long hair’

    hair long

    [a,taperek’]
2.4.3 Reduplication

Reduplication in Akuntsú marks plurality in nouns, as in *pi-pi* ‘feet’ and aspectual function in verbs, as in *ābi-bi* ‘to pull successively’.\(^{60}\) It can be monosyllabic (involving the first or the second syllable of the stem) or disyllabic (for the shape of these, see below). In monosyllabic reduplication, it is possible for the first syllable to be reduplicated, or the final syllable. Reduplication of the middle syllable does occur, but it is not as productive as the other types.

2.4.3.1 Monosyllabic

As mentioned above, monosyllabic reduplication can be CV or VC, or with complex syllables CVC. Apparently, in CV structures is not possible to predict whether the reduplication will take place syllable-initially or syllable-finally, while that in VC structure is always syllable-finally. Examples of monosyllabic reduplication follow:

(2.83) a. CV

<table>
<thead>
<tr>
<th>Stem</th>
<th>Reduplication</th>
</tr>
</thead>
<tbody>
<tr>
<td>ābi</td>
<td>ābi-bi</td>
</tr>
<tr>
<td>bawro</td>
<td>ba-bawro</td>
</tr>
<tr>
<td>pi</td>
<td>pi-pi</td>
</tr>
</tbody>
</table>

b. VC(VC)

<table>
<thead>
<tr>
<th>Stem</th>
<th>Reduplication</th>
</tr>
</thead>
<tbody>
<tr>
<td>tʃokin</td>
<td>tʃokin-in</td>
</tr>
</tbody>
</table>

---

\(^{59}\) It is important to recall that C\(_i\)C\(_i\) clusters also tend to be glottalized in slow speech C\(_i\)#C\(_i\) → C\(_i\)#C\(_i\)\(_i\)\(_i\)\(_i\), as in for example: [tara ɛ̃mėn’na] ‘who (turned into) your husband?’

\(^{60}\) See more on sections 4.6 and 5.11.4 respectively.
2.4.3.2 Disyllabic

Disyllabic reduplication in this language affects only words with the shape CV.CV; forms with complex syllables of the form CVC.CVC have not yet been found reduplicated.

Some examples illustrating dissyllabic reduplication that does occur are:

(2.84) a. CV.CV
kapa ‘to troll’ → kapa-kapa ‘to roll repeatedly’
tiri ‘two’ → tiri-tiri ‘four (or many)’

2.4.4 Stress and clitics

In this language, suffixes and prefixes do not affect the stress pattern in the language—that is, they figure into stress placement just as syllables of roots do. However, proclitics do have an impact on stress placement. The primary stress in stems is restricted to final or penultimate syllables (see §2.5 for discussion of stress). The examples below illustrate the effect of dependent personal pronouns (clitics) in word-level stress and how they are attached to the phonological word (PW), as follows:

NOUNS

(2.85) a. /o=kado/ [kaˈro] → [uˈkarjo] [uka.ro]PW ‘My necklace’
b. /i=pebo/ [peˈbo] → [iˈpebo] [ipe.bo]PW ‘Its feather’
c. /ki=pea/ [peʔa] → [ki peʔa] [kipe.ʔa]PW ‘Our firewood’

VERBS

(2.86) a. /o=õba/ [õˈba] → [oˈõba] [oõ.ba]PW ‘(He/she) hit me’
b. /ki=erek-ka/ [ɛɾɛˈka] → [kiɛɾekə] [kie.re.ka]PW ‘We speak’
c. /i=kerja/ [kɛˈra] → [iˈkerja] [ikɛ.ɾa]PW ‘(He/she) splits it’
2.4.5 Compounding

Compounds form one phonological word, and, as such, they are characterized by only one primary stress, which is illustrated in the following examples. The primary stress falls on the second component of the compound. There are cases of compounds composed of noun and adjective roots.61

When two components of a compound come together, each of which would receive primary stress in isolation, the rightmost component of the compound is assigned the strongest (primary) stress, and stress on the other component is reduced (secondary). Note that stress assignment is the same also for compounds. It is not a surprising effect of stress assignment in Akuntsú, since most of the phonological words follow this same pattern of iambic stress.

NOUNS + NOUNS

(2.87) a. /kəm/ ‘breast’ + /ki/ ‘liquid’  
    [kɛ̃m] + [ki] → [ˌkɛ̃m’gi]  ‘milk’
    b. /ororɔ/ ‘cotton’ + /pe/ ‘skin/peel’  
    [oro’ro] + [pe] → [o,oro’pe]  ‘clothes’

NOUNS + ADJECTIVES

(2.88) a. /otat/ ‘fire’ + /niŋ/ ‘striped’  
    [u’tat’] [niŋ] → [u,ta’niŋ]  ‘smoke’
    b. /otat/ ‘fire’ + /jen/ ‘excrement’  
    [o’tat’] [jɛn] → [o,ta’jɛn]  ‘ashes’

2.5 Prosody

In the linguistic literature, there are various different ways to analyze and represent the types of stress in world’s languages. Studies on prosodic systems have used the term ‘pitch accent’ to classify languages that either have a lexical accent system or a system in which tone and stress combine (though there is also considerable variation among scholars

61 For more on compounds, see section 4.5
in how they define or characterize pitch accent). As noted by Halle and Idsardi (1995), the fundamental idea behind Liberman’s discussion (1975) of accent is that stress (accent) is not a distinctive feature of the segment, rather it is a phonetic manifestation to represent diverse modes of phonological grouping (1975:403), such as the relative prominence of syllables on the word level and the relative prominence of words on the phrase level. For versions from the metrical theory, such as in Halle and Vergnaud (1987), Kager (1995), and Hayes (1995), the rhythm constitutes the main cue to distinguish weak vs. strong characteristics among syllables.

Metrical theory is concerned with representing the metrical foot as a central theoretical element. According to Hayes (1995), metric structures can be divided into two sorts: iambic and trochaic. The hierarchical structure of stress is marked by bracketed grids, which illustrate (abstractly) the difference between the weak syllable and the strong one. A representation of the pattern proposed in Hayes (1995) is exemplified below, where each syllable are grouped in feet (higher metrical units). The dot marks light syllables and the x strong syllables. The moraic trochee differs from syllabic trochee, because the former counts the moras, where light syllables count for one mora and heavy syllables count for two moras, and the latter count the syllable independent of syllable weight. As for Iambic pattern, heavy syllable can make up a foot, as in (2.11).

| MORAIC TROCHEE: (x .) or (x) |
| SYLLABIC TROCHEE: (x .) or (x) |
| IAMBIC: (. x) or (x) |

**Figure 2.10 -** Foot types (Hayes 1995).
2.5.1 Profile of Tupían Stress

The Tupían family consists of 35 languages, which are spoken from French Guiana to Paraguay. The descriptive literature on Tupían languages has shown that the main stress in Tupían languages is usually predictably on the final or penultimate syllable (cf. Wetzels and Meira (2010)). In Araweté (in example (2.89a-c)) and Guajá (2.90d-f), the word-level stress is on the final syllable; however, in Chiriguano (2.91a-c), also a Tupí-Guaranían language, the word-level stress falls consistently on the penultimate syllable. Among the Tupían languages, there are cases of pitch-accent, as in Karitiana (Storto 1999), and of tonal languages, such as Karo (Gabras 1999) and Mundurukú (Picanço 2005). There is also the case of Suruí, a Tupí-Mondé language, in which word-level stress is unpredictable (Van der Mer 1982) (cf. Wetzels and Meira (2010)).

**Final Syllable Stress**

(2.89) Araweté (adapted from Solano 2009:82)

a. /pane/ [paˈne] ‘almost’
b. /haʔiwe/ [haʔiˈβe] ‘tomorrow’
c. /urukuku/ [uruku ku] ‘snake sp. (surucucu)’

(2.90) Guajá (Nascimento 2008:59)

a. /kaʔa/ [kaʔa] ‘jungle’
b. mutuwe/ [mutuˈwe] ‘morning’
c. /tamanawã/ [tamanaˈvã] ‘ant-eater sp.’

**Penultimate Syllable Stress**

(2.91) Chiriguano (Dietrich 1986:49)

a. /akwa/ [ˈakwa] ‘to hit’
b. /agwata/ [aˈgwata] ‘to walk’
c. /apisakwe/ [apiˈsakwe] ‘lost ear’

As for the Tuparían subfamily, Rodrigues (1999:114) argues, “in languages of the Tuparí subfamily there is salient pitch accent, but it is predictable from stress which is itself

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62 See this article for more on typology of stress of Tupían and other Amazonian languages.
predictable from other phonological and morphological factors.” Besides Rodrigues’s analysis, there is also a preliminary analysis for the Wayoró language that says that there are pitch levels without lexical contrast identified (Moore 1999). Besides these cases, no other publication about the prosodic analysis for Akuntsú sister’s languages is known; rather, the prosodic constructions of the other Tuparían languages are yet to be determined.

2.5.2 Rhythmic pattern of words and phrases

In previous work, Aragon (2008) proposed that the main stress could occur either in the final or in the penultimate syllable. The questions to be addressed in this section are: (1) does the main stress fall on the penultimate or on the final syllable, and is it predictable?; (2) what are the arguments to justify the occurrence of word-level stress to be presented?; The findings in this section are the first tentative analysis of stress assignment in Akuntsú; therefore there is room for further investigation.

Below, examples are divided up according to their number of syllables to further discuss stress patterns in this language.

A. Monosyllabic words

NOUNS

(a) /ti/ [ˈti] ‘mother’
(b) /ek/ [ˈɛk] ‘house’
(c) /ko/ [ˈko] ‘hook’
(d) /kap/ [ˈkap] ‘wasp’

As for the verbs, they are not pronounced in isolation, i.e., without being included in a phrase, and, as such, verbal stress interacts with preceding and/or following function words. Some examples of verbs are illustrated in the following:

VERBS
(a) /nom tʃet/  
no leave  
[ˌnɒm tʃet]  
‘(He) didn’t leave’
(b) /te=ip/  
3COR=come.back  
[teˈip]  
‘He came back’
(c) /apaɾ o=i-ko/  
banana 1s=OBJ.NMLZ-ingest  
[əˈpaɾ o̞iˈko]  
‘banana my food’
(d) /kora-kora nom aot/  
chicken no go.out  
[ˌkʊra kʊra nɒm aʊt]  
‘the chicken doesn’t go out’

B. Disyllabic

ULTIMATE

(a) /tawtʃe/  
tawˈdʒɛ  
‘peccary’
(b) /niɾam/  
ni⁎ˈɾãm  
‘to defecate’
(c) /ekʷit/  
ɛˈkʷit  
‘honey’
(d) /kʷako/  
kʷəˈko  
‘guan (sp.) /sweet potato’
(e) /kitap/  
kiˈtap  
‘wax’
(f) /iki/  
iˈki  
‘water’
(g) /kado/  
kaˈro  
‘necklace’
(h) /nako/  
nəˈko  
‘man’
(i) /ojte/  
ojˈte  
‘hat’

PENULTIMATE

(a) /bago/  
ˈbago  
‘dry’
(b) /kʷiri/  
ˈkʷiri  
‘day/clean/empty’
(c) /pera/  
ˈpera  
‘to wake up’
(d) /tiri/  
ˈtiri  
‘two (or more)’

C. Trisyllabic

ULTIMATE

(a) /birita/  
[biɾiˈta]  
‘traíra (fish (sp.)’
(b) /komata/  
[kumãˈta]  
‘beans (sp.)’
(c) /araki/  
[ərəˈkwi]  
‘peanut’
(d) /kiri/to/  
[kiɾiˈto]  
‘spider (generic)’
(e) /ameko/  
[əmɛˈku]  
‘jaguar’
(f) /atiti/  
[ətiˈti]  
‘corn’
(g) /ebapa/  
[ɛbapə]  
‘moon’
(h) /ababa/  
[abaˈba]  
‘fly (sp.)’
Penultimate

(a) /takirap/ [taˈkɪrap] ‘spider-monkey (sp.)’
(b) /tojtona/ [tojˈtoːna] ‘boss/chief’
(c) /kapkaba/ [kəpˈgaba] ‘flute (type)’
(d) /fjonebo/ [jũˈnebo] ‘lizard (sp.)’
(f) /amina/ [a.ˈmiːnə] ‘knee’

With clitics
(a) /o=ø-kado/ [u.ˈkā.dɔ] ~ [u.ˈka.ro] ‘my necklace’
(b) /i=ø-bita/ [i.ˈbi.ta] ‘its liver’
(c) /o=ø-akõja/ [wa.ˈkũ.ũja] ‘my beard’
(d) /o=ø-akop-ka/ [waˈkοpˈka] ‘my warming’

D. Polysyllabic (more than three syllables)

Ultimate

No polysyllabic lexical words were found with ultimate stress. See the behavior of nominal phrases with more than three syllables, as in the following examples:

(a) /kiakop etʃe/ [kəˈkobeˈtʃɛ] ‘in the sun’

Penultimate

(a) /aramîra/ [araˈmiːra] ‘woman’
(b) /akataba/ [akaˈtaba] ‘tucum (palm fiber (sp.)’
(c) /torodita/ [tɔrɔˈrita] ‘rattlesnake (sp.)’

Phrases

(a) /ōjpe ko-a-ra/ [ˌoʃbeˈkɔra] ‘I am going to sniff snuff as usual’
(b) /o=ø-eti tʃere-ka te/ [we.ʃiˌtʃeɾɛˈkate] ‘He is cutting my basket’
The stress will fall on the ultimate syllable or on the penultimate syllable, which means that it will fall on one of the last two syllables at the right edge of the lexical word, as shown in the examples. The discussion of how it falls on the penultimate or on the ultimate are presented further in this section.

✓ Stress is not sensitive to syllable weight.

(2.92) (a) /takirap/ [dɔˈkɪræp] ‘spider-monkey’
(b) /tojtona/ [tojˈtɔnə] ‘boss’
(c) /kapkaba/ [kɔpˈɡaba] ‘flute (four holes)’
(d) /tawtʃe/ [tawˈtʃe] ‘peccary’

✓ The stress will fall on the ultimate or on the penultimate syllable (unpredictable), which means that it will fall on one of the last two syllables at the right edge of the lexical word.

(2.93) (a) /ameko/ [ɔmɛˈku] ‘jaguar’
(b) /atiti/ [atiˈti] ‘corn’
(c) /aramĩra/ [araˈmĩɾa] ‘woman’
(d) /akataba/ [akaˈtaba] ‘tucum (palm fiber (sp.))’

In TRISYLLABIC and other POLYSYLLABIC forms (words of more than three syllables), the stress may fall either on the second or on the first right-most edge of the word. DISYLLABIC words have either ultimate or penultimate stress. The stress pattern of disyllabic words may suggest possible lexical stress (i.e., phonemic stress) in the language, even though the number of minimal pairs found may be not so convincing, as illustrated below:

(2.94) a. /bago/ [ˈbago] ‘dry’
   vs. /bago/ [baˈgo] ‘ant (sp.)’

b. /kʷiri/ [kʷiˈri] ‘açai’
   vs. /kʷiri/ [ˈkʷiri] ‘day/clean/empty’
In cases where clitics are present, the stress assignment pattern is modified. The examples presented in (2.95) illustrate the effect of clitics on word-level stress.

(2.95)

```
*  * 
ka  do  o  ka  do  
[ka’do]  [o’kar][
‘necklace’  ‘my necklace’
```

Another criterion to take into account is what happens to stress when a second word is added to a phrase, for example in the phrase /aparaka/ ‘(he/she) eats bananas.’ In this example, when the verb root is added, the rightmost syllable takes the primary stress; as a result, the final right syllable bears the stress.

(2.96)

```
*  * 
. *  *  +  *  \rightarrow . *  . *  . 
a  pa  ra  ka  a  pa  ra  ka  
[apa’ra]  [’ka]  [a,para’ka]  
‘banana’  ‘to ingest’  ‘(he/she) eats bananas’
```

In discourse, when two words are combined, and the resulting clause is uneven, the stress falls on the penultimate syllable. Compare (2.97a-b) with (2.97c), as following:

(2.97) a.

```
*  * 
a  pa  ra  a  pe  a  pa  ra  a  pe  
[apa’ra]  [a’pe]  [a,para’?ape]  
‘banana’  ‘peel’  banana peel  ‘banana’s peel’
```

b.

```
*  * 
po  ra  ki  pe  bo  po  ra  ki  pe  bo  
[por’aki]  [pe’bo]  [po, rak’pebo]  
‘curassow (sp.)’  ‘feather’  curassow feather  ‘curassow’s feather’
```
Content words tend to have more prominence in speech than function words, where the latter are often reduced.

The next sections will deal with the phonetics of stress patterns.

2.5.3 The phonetics of the rhythmic pattern

In this section, the rhythmic pattern of the language is discussed based on the phonetic characteristics of stress. The main cues to be analyzed are duration of vowels, pitch, and intensity. Based on Beckman (1986), stress here is viewed as “a phonological delimitation type of accent” (1986:1).

The duration of the vowels, the pitch, and the intensity for each syllable (table 2.16 below) were measured using the PRAAT speech analysis software. The default specifications of the program were used, a dynamic range of 60 dB and analysis window duration of five ms. (0.005 s). For pitch measurement, the pitch range setting was adjusted to 75-300Hz for male speakers and 100-500Hz for female speakers. Vowels were measured from their onset marked at the consonant release “indicated by the beginning of an increase of the amplitude and complexity of the wave” (Myers 2005:431). Initial-vowel duration was marked at the onset of the acoustic energy.
In summary, table 2.16 below shows samples of words where the values of each vowel for duration and the value of each syllable for pitch and intensity are provided\(^{63}\) (the stressed syllable of each word is in boldface).

<table>
<thead>
<tr>
<th>PENULTIMATE</th>
<th>FINAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) /aramĩra/ ‘woman’</td>
<td>(2) /apara ko-a/ ‘(he/she) eats banana’</td>
</tr>
<tr>
<td>a</td>
<td>95</td>
</tr>
<tr>
<td>ra</td>
<td>100</td>
</tr>
<tr>
<td>‘mĩ’</td>
<td>120</td>
</tr>
<tr>
<td>ra</td>
<td>83</td>
</tr>
<tr>
<td>pitch</td>
<td>95</td>
</tr>
<tr>
<td>duration</td>
<td>84</td>
</tr>
<tr>
<td>intensity</td>
<td>63</td>
</tr>
<tr>
<td>(3) /takirap/ ‘spider monkey’</td>
<td>(4) /ororo/ ‘cotton’</td>
</tr>
<tr>
<td>to</td>
<td>91</td>
</tr>
<tr>
<td>kĩ</td>
<td>130</td>
</tr>
<tr>
<td>rap</td>
<td>124</td>
</tr>
<tr>
<td>pitch</td>
<td>74</td>
</tr>
<tr>
<td>duration</td>
<td>109</td>
</tr>
<tr>
<td>intensity</td>
<td>67</td>
</tr>
<tr>
<td>(5) /koro/ ‘bowl’</td>
<td>(6) /arakʰi/ ‘peanut’</td>
</tr>
<tr>
<td>ko</td>
<td>221</td>
</tr>
<tr>
<td>‘ro’</td>
<td>275</td>
</tr>
<tr>
<td>pitch</td>
<td>162</td>
</tr>
<tr>
<td>duration</td>
<td>194</td>
</tr>
<tr>
<td>intensity</td>
<td>70</td>
</tr>
<tr>
<td>(7) /akataba/ ‘buriti’</td>
<td>(8) /poraki/ ‘mutum (sp.)’</td>
</tr>
<tr>
<td>a</td>
<td>200</td>
</tr>
<tr>
<td>ka</td>
<td>203</td>
</tr>
<tr>
<td>‘ta’</td>
<td>185</td>
</tr>
<tr>
<td>ba</td>
<td>180</td>
</tr>
<tr>
<td>pitch</td>
<td>200</td>
</tr>
<tr>
<td>duration</td>
<td>203</td>
</tr>
<tr>
<td>intensity</td>
<td>60</td>
</tr>
<tr>
<td>(8) /poraki/ ‘mutum (sp.)’</td>
<td>(9) /poraki/ ‘mutum (sp.)’</td>
</tr>
<tr>
<td>po</td>
<td>185</td>
</tr>
<tr>
<td>ra</td>
<td>188</td>
</tr>
<tr>
<td>‘ki’</td>
<td>111</td>
</tr>
<tr>
<td>intensity</td>
<td>188</td>
</tr>
</tbody>
</table>

Table 2.17 - Sample of the phonetics of stress

In most Akuntsú words, the duration of vowels are greater under stress; when duration is higher in unstressed syllables this is due to: (i) speaking rate (see details in §2.2.1.4 and §2.2.1.7), and (ii) the voicing of adjacent consonants which also tends to

\(^{63}\) The pitch and intensity values for some syllables are difficult to measure due to the effect of creaky voice, hence words with no creaky voice (or minimal sign of creaky voice) were preferred for inclusion in this table.
increase the duration of vowels (Ladefoged 2003:94).

Another phonetic characteristic to help to identify stress in this language is intensity and pitch. Pitch and intensity are related notions, and higher pitch, in most cases (with some exceptions, and the one presented in example (6) above), tends to be accompanied by higher intensity, where the higher sub-glottal pressure also causes the syllable to be louder.

In addition, there are also some phonological and morphological factors which characterize stress assignment in Akuntsú, such as: (a) the occurrence of [i, ə, ʌ, e and ʊ] vowels is usually in unstressed position while [a, o, ɛ, æ, i, and u] in stressed position;64 (b) alveolars tend to become a flap; (c) voiceless stops tend to be lengthened in stressed syllables; and (d) the vowels in unstressed syllables in word final position tend to be devoiced when the stress falls on the penultimate syllable. These processes are exemplified in the following:

A. QUALITY SHIFTING IN UNSTRESSED POSITION

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) /kapkaba/</td>
<td>[kɔpˈgaba]</td>
<td>~</td>
</tr>
<tr>
<td>(b) /taptot/</td>
<td>[tɔpˈdut]</td>
<td>~</td>
</tr>
<tr>
<td>(c) /otat/</td>
<td>[ɔˈtat]</td>
<td>~</td>
</tr>
<tr>
<td>(d) /ope/</td>
<td>[uˈpe]</td>
<td>~</td>
</tr>
<tr>
<td>(e) /kipek/</td>
<td>[kiˈbek]</td>
<td>~</td>
</tr>
</tbody>
</table>

B. FLAPPING

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) /taptot/ ‘manioc’ + /-et/ ‘determinative’</td>
<td>[tɔpˌduˈret]</td>
<td>‘the manioc’</td>
</tr>
<tr>
<td>(b) /mepit/ ‘son/daughter’ + /=erom/ ‘negation’</td>
<td>[mɛˌpɪrɛˈrɔm]</td>
<td>‘There is no son/daughter’</td>
</tr>
</tbody>
</table>

C. STOP LENGTHENING

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) /o=ʊ-pi/</td>
<td>1s=ᵣ-foot</td>
<td>[ɔpˈpi]</td>
</tr>
</tbody>
</table>

---

64 Note that this is a tendency, not a general rule.
(b) /kʷato/ [wɐʔ’to] ~ [wɐʔ’dɔ] ‘alligator’

D. DEVOICING

(a) /jõnebo/ [jũ’nɛbɔ] ‘lizard (sp.)’
(b) /koboɾo/ [ko’bɔɾɔ] ‘bowl (type)’

On the basis of those findings, it is possible to state that pitch is determined by the absence or presence of stress and the most prominent acoustic characteristic of stress in Akuntsú is high pitch, which interacts with such factors as duration and intensity.

2.5.4 Overview of intonation

Besides stress, another place where pitch and duration play important roles is in the domain of intonation. In this language, intonation is a cue to identify speech acts, e.g. whether an utterance is imperative, declarative or interrogative. Additionally, it is also a cue to identify focused constituents. In imperative clauses, when the imperative marker -tʃo is not present, the only difference between declaratives and imperatives is the intonational contour. Moreover, in yes/no questions, the intonation contour at the end of the phrase is the main cue to identify it as an interrogative utterance.

2.6 Summary

This chapter described several topics in segmental phonology, starting with a presentation of vowels, where five underlying oral and nasal vowels are present in the language. This study also includes a discussion on nasality in vowels and the process of nasalization. Nasal vowels in the language are contrastive only in stressed syllables, where underlying vowels can occur both in stressed and unstressed environments. Nasalization in
the language can occur progressively or reggressively.

Laryngealized vowels are then discussed. Data is presented to illustrate that creaky voice in the language is phonetically conditioned by the presence of glottal stops, stress and paralinguistic factors. In addition, this chapter also dealt with vowel length and its behavior in the language. It was found that vowel length is not contrastive. The formation of diphthongs is then presented along with the main analysis of glides. Finally, the vowels section concluded with an overview of how speech rate and stress affect vowel quality.

The description then turned to describing the distribution of consonants. A total of thirteen underlying consonants are found in this language. The glottal stop is considered a surface segment.

The distribution of syllables was also described. The syllable structure in Akuntsú has the pattern (C)V(C). Syllables of the types CVC, CV, VC, and V are found in the language, including also CVCC. Further on, the main topics in morphophonology were presented. Finally, the analysis of rhythmic pattern of words and phrases was described, where Akuntsú was described as an iambic language, where primary stress is assigned to the right-most foot of a word or phrase.
CHAPTER 3
WORD-STRUCTURE AND GRAMMATICAL CATEGORY

3.1 Introduction

This chapter provides an overview of the word-structure and grammatical categories found in Akuntsú. It provides basic definitions used in the subsequent chapters and an overview of the grammatical categories available in this language.

Akuntsú is mostly a suffixing language, though its number of affixes and suffixes are relatively small if compared to some other South American languages. Words in this language can be composed as few as single morpheme, or can bear to different affixes. Inflection, derivation and compounding are processes found in the language, and derivation and compounding are productive in word formation.

The first section discusses the morphological structure (§3.2), giving an overview of the morphological structure of the language, describing the main characteristics of clitics, affixes and particles. Next, a typological overview of the morphological processes among Tupían languages is described, with comparison to the morphological processes described in this study for Akuntsú. The relational prefixes are introduced, showing the main function of these prefixes in this language. The second section briefly presents an overview of the lexical classes in Akuntsú (§3.3), showing the main function of nouns, verbs, adjectives, adverbs, pro-forms, particles, postpositions, ideophones and interjections. A summary is
3.2 Morphological structure

In this section, the definition of a phonological and grammatical word will be discussed based on the features and processes identified in Akuntsú. In addition, clitics, affixes and particles will be defined.

3.2.1 Overview of the phonological and grammatical word

In Akuntsú, a PHONOLOGICAL WORD needs to bear a foot at its right edge, i.e., needs to receive a primary stress that falls at the right-most edge of the word. Phonological word is then defined as a syntactic unit formed by the root and any grammatical affix integrated with the root; and as such, the phonological word can be identified by (a) prosodic features and (b) phonological processes (Dixon and Aikhenvald 2002).

(A) PROSODIC FEATURES: Each phonological word has a primary stress, and when words form a phonological phrase, the primary stress goes on the right-most word. Clitics are integrated into the phonological word, causing stress shift. Enclitics are usually unparsed while particles or affixes are usually parsed into the foot, depending on their syllabic position within the phrase. There is no difference in stress assignment between nouns and verbs. The stress assignment found in verbal and nominal constructions depends on their combination with the different grammatical morphemes found in the language (see §2.5 for stress assignment).

In a compound, two independent “words” are joined to form two phonological words that together form one semantic unit, a lexical entry. As with all other phonological
phrases encountered in this language, the primary stress of compounds is assigned to the right-most component in the compound and the main stress of other components is reduced to secondary. That is, the stress of the first conjunct of the compound is reduced to secondary stress level (see §2.4.5 for compounding).

(b) **PHONOLOGICAL PROCESSES**: The phonological traits used to identify phonological words are related to processes that happen across word, morpheme or clitic boundary: for example, vowel deletion, voicing, and consonant reduction (see §2.4). In this language, these types of processes are restricted to phonological words and they can identify whether or not a root and the attached morphemes are integrated into the same phonological word.

The **grammatical word** is composed of a root with or without other grammatical element. The grammatical element can be either a bound morpheme (affixes or clitics) attached to the root or can be a phonologically free morpheme, as in the case of particles. In other words, the root forms the basis of the grammatical word, taking one or more bound morphemes.

### 3.2.2 Clitics, affixes and particles

This language exhibits few bound morphemes when compared to other Amazonian languages. These bound morphemes can be divided into clitics and affixes. Clitics and affixes are distinguished in this language based upon the criteria proposed by Zwicky (1985), Zwicky and Pullum (1983), Anderson (2005) and Bickel and Nichols (2007).

By definition, clitics are phonologically and grammatically dependent on their roots (hosts). The phonological dependence is what differentiates clitics from particles, as well as
from non-cohering affixes. In addition, the main difference found between affix and clitic is that the latter is not limited to a specific part of the speech, i.e., it is not governed by the grammatical category of the stem to which it is attached. This means that clitics are not restricted to occurring when attached to a specific grammatical element as affixes are. For example, in Akuntsú, dependent personal pronouns, clitic-like morphemes, can be attached to any verb independently of their grammatical relation to that verb, as well as to nouns and postpositions. Besides personal pronouns, there are other clitics in the language, which express different grammatical functions. The possible clitics found in this language are: PROCLITICS (clitics that precede the root) and ENCLITICS (clitics that follow the root).

However, let us show in this section some of the characteristics of pronominal markers in the language. Based upon the criteria proposed by Zwicky and Pullum (1983) the personal pronouns in Akuntsú exhibit a clitic-like behavior. The Zwicky and Pullum’s criteria are reproduced below:

A. Clitics can exhibit a low degree of selection with respect to their hosts, while affixes exhibit a high degree of selection

B. Arbitrary gaps in the set of combinations are more characteristic of affixed words than of clitic groups.

C. Morphophonological idiosyncrasies are more characteristic of affixed words than of clitic groups.

D. Semantic idiosyncrasies are more characteristic of affixed words than of clitic groups.

E. Syntactic rules can affect affixed words, but not clitic groups.

---

65 Cohering affixes, like clitics, are phonological dependent to a host (Booij 2007:166).

66 Note that in this chapter when I talk about personal pronouns as clitic-like, I only refer to the first, second and third person singular, as well as the third coreferential pronoun, which are the only pronouns that fit clitic characteristics.
F. Clitics can attach to material already containing clitics, but affixes cannot.

As described below only criteria A, B and C are conclusive:

CRITERION A: In Akuntsú, personal pronouns can be attached to nouns and verbs. This means that the personal pronouns can be attached to words of different lexical categories and are not restricted to a specific element, as affixes are. Dependent pronouns in this language are freely attached to different lexical category, including nouns, verbs, adjectives and postpositions. Thus, personal pronouns based on this criterion would be characterized as clitic-like rather than affix-like.

CRITERION B: According to this criterion, dependent pronouns would be considered clitic-like, because they can be attached to any particular verb independently of its grammatical relation. This criterion means that clitics do not “refuse selectively to appear (in the case of gaps) (...) since they have no access to the internal properties of the specific lexical elements with which they combine” (Anderson 2005:34).

CRITERION C: Affixes behave differently according to the element to which they are attached, whereas clitics do not. This difference is due to the fact that affixes are “introduced in the lexicon and are performed by word-formation rules” whereas clitics are introduced post-lexically (Anderson 2005:34). In Akuntsú, there are no cases where the association of personal pronouns with verbs or nouns shows an unexpected phonological form (3.1a). Affixes, on the other hand, are able to change the phonological form of their stems (3.1b).

(3.1) a. o=atʃo-a
    1s=bathe-THV
    ‘I bathe’
b.  \( i=ko-a \rightarrow [ika] \)
   \( 1s \ 3s=\text{ingest-THV} \)
   ‘I eat it’

The remaining criteria are not conclusive for determining whether personal pronouns are clitics or affixes. Besides the criteria proposed by Zwicky and Pullum (1983), there are other arguments that might help to understand the (morpho)syntactic status of the dependent personal pronominal markers in Akuntsú: for example, the fact that dependent pronouns have lexical properties, and that personal pronouns are not part of the noun phrase when a full nominal form can replace them. These dependent pronouns are therefore clitic elements due to the fact that, unlike affixes, they do not form morphological and syntactic units with their hosts; that is, they correspond to elements that can be expressed as independent words (see details in section 3.2.4 on relational prefixes).

On the other hand, particles are here considered phonologically and morphologically free forms, i.e., they can stand independently on their own. They may occur at the beginning or at the final position of a phrase. The template of how clitics, affixes and particles are attached to their roots is presented below. The figure 3.1 illustrates the nominal root template, as following:

\[
\text{(particle) (proclitic)=(prefix)-ROOT-(suffix)=(enclitic) (particle)}
\]

\textbf{Figure 3.1 - Nominal root template.}

(3.2) a.  \( o=\text{t-ek} \ ete \)
   \( 1s=R\)-house REL
   ‘It is about my house’

b.  \( e=\phi\text{-top} \ te \ Konibu \)
   \( 2s=R\)-father FOC Konibu
   ‘Your father is Konibu’
c. \( o=\theta-ti \) \( te \) \( aramîra \) \( o=\theta-ti \) \( jê \)
\( 1s=R\)-mother FOC Aramîra \( 1s=R\)-mother DEM
‘My mother is Aramîra, my mother is this one’

The template of how clitics, affixes and particles are attached to the verbal root is illustrated here.

\[
\text{(particle) (proclitic)=(prefix)-ROOT-(suffix)} = (\text{enclitic}) \text{(particle)}
\]

**Figure 3.2 - Verbal root template.**

(3.3) a. \( o=t\text{fet-}a=\text{ra} \) \( \text{kom} \)
\( 1s=\text{leave-THV-HAB} \) PROJ
‘I will leave’

b. \( \text{tawtfe} \) \( o=i-mi \)
peccary \( 1s=\text{OBJ.NMLZ-kill} \)
‘peccary, my game’
Literally: ‘peccary my killing (my hunted thing)’

### 3.2.3 Morphological processes

The morphological processes across Tupián languages, including Akuntsú, involve primarily inflection, derivation, and compounding (Rodrigues and Cabral 2012). Tupián languages also present iconic morphological processes involving reduplication, which is considered a productive process in some of the Tupián languages, including Akuntsú (see §5.11.4 for further details).\(^67\)

**Inflectional morphology** in Akuntsú includes relational affixes, modality and some aspectual markers. Modality markers occur with verbs (or verb phrases—they are often particles or suffixes), distinguishing among indicative, gerund and imperative, and

\(^67\) Ablaut/apophony (change by vowel alternation) wasn't found in this language.
subjunctive, though only indicative and imperative moods are presented in this study. Note that indicatives are often called declaratives (statements) in analyses of Tuparían languages.

I would like to recall that the pronominal markers are considered clitics in this language, and as such they fit into neither inflection nor derivation processes, though they have grammatical functions that affect the overall meaning of the pronominal and its host. Personal pronouns are divided into two classes, where one functions as absolutive markers, and the other as ergative markers (see §3.3.5.1 for details). The coding of grammatical roles is indirect; core arguments are cross-referenced in transitive and intransitive verbs by pronominal markers.

Derivational morphology involves markers of valence-changing and meaning-changing. In Akuntsú, derivational morphemes apply to nouns and verb classes, through suffixation or prefixation. There are some main types of derivational process found, namely: (a) derivations marked on verbs: reflexives, causative markers mō- ~ ō-, and nominalizer affixes, for instance object nominalizer i-, and circumstance nominalizer -ap and; (b) derivations marked on nouns, for example the verbalizer suffixes.

At this point in the discussion, let us summarize the main differences found between inflectional and derivational process in Akuntsú. However, note that there are few affixes in the language and the boundary between inflection and derivation is not always so

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68 Which behaves as a regular subordinate clause (details in further studies).

69 More details on independent and dependent clauses across Tupían languages are found in Rodrigues and Cabral (2004, 2006 and 2012).

70 This discussion is based on Bickel and Nichols (2007).
straightforward. The main characteristics found in inflectional processes that differentiate them from derivational ones are described as following:

<table>
<thead>
<tr>
<th>INFLECTION VS. DERIVATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) <strong>INFLECTION</strong> results in the same word with a different form (does not change its basic meaning);</td>
</tr>
<tr>
<td>(2) <strong>INFLECTION</strong> does not change the lexical category, i.e., it only adds specifications to a word or emphasizes certain characteristics of a specific meaning of the word. For instance, by adding the nominalizer -ap to the verb, it changes the lexical category of the stem from noun to verb, and is therefore a derivational affix, not inflectional.</td>
</tr>
<tr>
<td>(3) <strong>INFLECTION</strong> is obligatory in some situations (at least) while <strong>DERIVATION</strong> is optional.</td>
</tr>
</tbody>
</table>

**Figure 3.3 -** Inflection versus Derivation.

**Compounding** is a word formation process that includes combinations of the free stems joined to create compound words: [NOUN-NOUN] and [NOUN-ADJECTIVE]. Among other Tupían languages, there are also compounds involving [NOUN-INTRANSITIVE.VERB], and [NOUN-TRANSITIVE.VERB]; the last is found only in four of the Tupían subfamilies: Mawé, Awetí, Tupí-Guaraní and Mundurukú (Rodrigues and Cabral 2012:539).

**Iconicity** refers in this study to ‘the phenomenon that the meaning of a linguistic expression is reflected by its formal structure’ (Booij 2007:314). An instance of word formation process that is often iconic is **reduplication**; this process is found in nouns and verbs. In Akuntsú verbs, this process also assigns aspect (see §5.11). An example of iconicity in Akuntsú is seen in their diminutive and augmentative markers. These two derivational markers are typologically often considered sound-symbolic, in the sense that “high closed vowels tend to be employed in diminutives, while augmentatives tend to use low open vowels” (Aikhenvald 2007:23).
3.2.4 Relational prefixes

Rodrigues used this notion for descriptions of the Tupían languages (Rodrigues 1981), especially for the Tupí-Guaranían languages in which the phenomenon is clearly observed in paradigms (Cabral 2001). This morphosyntactic process was described in many Tupían languages, including e.g. Mundurukú (Gomes 2006), Sateré-Mawé (Rodrigues 1990), Guajá (Magalhães 2007), and Araweté (Solano 2009). Note, however, that this is not found only in Tupían languages, but it was also noted in Cariban languages and in some languages of the Macro-Jean family (Rodrigues 1990, cf. Corrêa da Silva 2010:225).71

In these languages, the main function of relational prefixes is to indicate whether the dependent element is syntactically contiguous in a possession construction, marking the relation between the nucleus and its dependent. Thus, the relational prefixes indicate whether the possessed noun is or is not contiguous to its possessor or if the argument(s) of the verb is/are contiguous or not to its/their governing verb within a syntactic unit (Rodrigues 1999, Cabral 2001).72

3.2.4.1 Relational prefixes in the Tuparían subfamily

Relational prefixes have been described in two of the five Tuparían languages: Makuráp (Braga 2005) and Tuperí (Caspar and Rodrigues 1957, Alves 2002, 2004).

In Makuráp, for example, there are two types of relational prefixes, which are responsible for dividing the nouns into two different classes according to their combination

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71 For Proto-Tupían, it was postulated three relational prefixes: **ɾʔ ~ Ø- (R1-), **ɾi- ~ **c- (R2-), **m- ~ **ɾ- (R4), where R4 indicates that its determiner is generic and human (Rodrigues and Cabral 2012:511).

72 Among the Tupían literatures, there are some analyses that describe what are identified as relational prefixes in some Tupían languages, as a mark of third-person personal pronouns (see for example Galucio (2001), Rose (2003) and Jensen (1999)).
with relational prefixes. The possible relational prefixes in Makuráp are $R^1$ and $R^2$. The first is responsible for indicating whether or not the argument of the verb or the possessor of a noun is contiguous to its nucleus in a syntactic constituent; the second, $R^2$, is responsible for indicating that the dependent element does not form a syntactic unit with its nucleus— with its possessed noun or its verb. Makuráp's relational prefixes are divided into four classes: class I, class II, class III and class IV.

The classes (not only in Makuráp but in other Tupían languages too) are organized according to the combination of the relational prefix with each nominal thematic class, varying according to the phonetic nature of the root that the relational prefix is attached to.

<table>
<thead>
<tr>
<th>Class</th>
<th>$R^1$</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class I</td>
<td>$tj\mathbf{[\sim j]}$</td>
<td>$t\mathbf{-}$</td>
</tr>
<tr>
<td></td>
<td>$o+j-\ddot{a}j-t$</td>
<td>$t-\ddot{a}y\mathbf{-en}$</td>
</tr>
<tr>
<td></td>
<td>1ps+PRC-tooth GEN</td>
<td>PRNC-tooth GEN</td>
</tr>
<tr>
<td></td>
<td>‘my tooth’</td>
<td>‘his/her tooth’</td>
</tr>
<tr>
<td>Class II</td>
<td>$\varnothing-</td>
<td>$y(i)-$</td>
</tr>
<tr>
<td></td>
<td>$o+\varnothing-akare-t$</td>
<td>$y-akare-t$</td>
</tr>
<tr>
<td></td>
<td>1ps+PRC.head GEN</td>
<td>PRNC.head GEN</td>
</tr>
<tr>
<td></td>
<td>‘my head’</td>
<td>‘his/her head’</td>
</tr>
<tr>
<td>Class III</td>
<td>$w-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$o+w-\mathrm{okap-et}$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1ps+PRC-radio GEN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘my radio’</td>
<td></td>
</tr>
<tr>
<td>Class IV</td>
<td>$\varnothing-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$o+\varnothing-kat-et$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1ps+PRC-body GEN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘my body’</td>
<td></td>
</tr>
</tbody>
</table>

Table 3.1 - Makuráp relational prefixes (adapted from Braga 2005).

---

73 Braga calls the $R^1$- PRC and $R^2$ - PRNC.

74 Braga (2005) leaves blank the $R^2$ column of class III and IV. She affirms that for nouns grouped in these classes the difference between $R^1$ and $R^2$ is neutralized, and as a consequence it may create ambiguity readings.
Table 3.1 above shows how the relational prefixes are organized in Makuráp according to their noun class. Examples below help to identify the difference between R1 and R2 in this language:

**MAKURÁP (adapted from Braga 2005)**

(3.4) a. \[Mario t^f-ek-et] NP tok-ng-a\nMário R1-house-GEN build-EFF-IMPERF\n‘They have built Mário’s house’

b. Mario \[t-ek-et] NP tok-ng-a \nMário R2-house-GEN build-EFF-IMPERF \n‘Mário has built his (somebody else’s) house’

According to Alves (2004), in Tuparí, there are two relational prefixes R1 and R2, divided into three thematic classes: Class I, Class II and Class III. These relations are described in the table below.

<table>
<thead>
<tr>
<th></th>
<th>R1</th>
<th>R2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class I</td>
<td>(\emptyset)</td>
<td>(\emptyset)</td>
</tr>
<tr>
<td></td>
<td>koepa (\emptyset)-epa</td>
<td>s-epa</td>
</tr>
<tr>
<td></td>
<td>moon R1-eye</td>
<td>R2-eye \</td>
</tr>
<tr>
<td></td>
<td>‘eyes of the moon’</td>
<td>‘someone’s eyes’</td>
</tr>
<tr>
<td>Class II</td>
<td>(\emptyset)</td>
<td>i-</td>
</tr>
<tr>
<td></td>
<td>Pabit (\emptyset)-a:pe</td>
<td>i-a:pe</td>
</tr>
<tr>
<td></td>
<td>Pabit R1-path</td>
<td>R2-path</td>
</tr>
<tr>
<td></td>
<td>‘Pabit’s path’</td>
<td>‘someone’s path’</td>
</tr>
<tr>
<td>Class III</td>
<td>h-</td>
<td>i-</td>
</tr>
<tr>
<td></td>
<td>toto h-ayp</td>
<td>i-ayp</td>
</tr>
<tr>
<td></td>
<td>grandfather R1-son</td>
<td>R2-son</td>
</tr>
<tr>
<td></td>
<td>‘Grandfather’s son’</td>
<td>‘his son’</td>
</tr>
</tbody>
</table>

**Table 3.2** - Tuparí relational prefixes (adapted from Alves 2004).

75 I did not change the original abbreviations: GEN ‘génitif’ EFF ‘effective’ IMPERF ‘imperfectif’ (Braga 2005).
3.2.4.2 Akuntsú relational prefix and noun phrases

Aragon (2008), by following the description suggested in Rodrigues (1996), described one type of relational prefix for Akuntsú: R with two thematic classes, namely class I and class II, which is cognate to relational prefixes found in other Tuparían languages, as illustrated in the above tables.

However, in Akuntsú, this prefix is no longer productive. The relational R expresses possessive relation between two elements within the same phrase, i.e., it indicates whether the possessed noun is or is not contiguous to its possessor, functioning in this language as a possessive marker.

So far, only two thematic classes were clearly identified, the class I represented by a zero morpheme and the class II represented by \( t \). Note that this study doesn't describe all the lexical classes that occur with each thematic class. To do so, it would need an accurate lexicographic investigation, which is not the purpose of the present work.

<table>
<thead>
<tr>
<th>THEMATIC CLASSES</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class I</td>
<td>ø-</td>
</tr>
<tr>
<td>Class II</td>
<td>t-</td>
</tr>
</tbody>
</table>

**Table 3.3** - Akuntsú relational prefixes (Aragon 2008).

Compare example (3.5a-b) where example (3.5a) illustrates a non-possessor relation, while example (3.5b) indicates the possessive construction between possessor and possessed noun.

(3.5) a. \( \text{jê ep} \)  b. \( \text{jê t-ep} \)
\( \text{DEM leaf} \)  \( \text{DEM R-leaf} \)
‘this leaf’  ‘this one's leaf’
Dependent pronouns always precede the relational prefixes in genitive (possessive) constructions. A noun phrase can also replace person markers and a dependent pronoun cannot co-occur with the NP, as shown in the phrase considered non-acceptable by the speakers:

(3.6) *[Pupák i=t-ek]NP
       Pupák 3s=R-house
       ‘Pupák’s house’

The examples below provide more illustrations about the behavior of the R relational prefix in Akuntsú, both with class I and with class II.

R CLASS I

(3.7) a. [o=关停-anam] NP
       1s=R-head
       ‘My head’

b. [e=关停-mepit] NP
       2s=R-son/daughter of woman
       ‘Your daughter’

c. [o=关停-kado] NP
       1s=R-necklace
       ‘My necklace’

d. [aw-aw关停-arape] NP
       baby R-sling
       ‘Baby’s sling’

e. Konibu关停-ajfi Aramíra
       Konibů R-wife Aramira
       ‘Konibů’s wife is Aramira’

f. o=关停-atap kop
       1s=R-hair red
       ‘My red hair’
When there is no contiguity element to form a syntactic unit of the possessor and the possessed noun, there is no need for the appearance of the relational prefix. Compare the word for ‘house’ (in bold) with no relational prefix to the following phrases where the word ‘house’ appears with R relational prefix (3.9):

\[
(3.9) \quad \text{ek} \quad \text{no} \quad jêrom \quad \text{otfe t-ek} \quad \text{no} \quad jêrom \quad \text{ke t-ek}
\]

house other DEM 1EXCL R-house other DEM DEM R-house

‘The other house is there, our other house is there, that one’s house’

\[
o=t-ek \quad emo
\]

1s=R-house also

‘and my house too.’

Compare the below example where the relational prefix occurs in the NP (3.10a) with that where the relational prefix is absent (3.10b).

\[
(3.10) \quad \text{ep} \quad \text{ko-a} \quad jê
\]

leaf ingest-THV DEM

‘This one eats leaf’

\[
\text{apara t-ep} \quad \text{tfop-a} \quad jê
\]

banana R-leaf see-THV DEM

‘This one sees banana’s leaf’
3.3 Overview of grammatical categories

The purpose of this section is to introduce the parts of speech (lexical categories) found in Akuntsú to give some insight into their distribution and organization in the language. The analysis of parts of speech in this language mostly follows Schachter and Shopen (2007) and Givón (2001).

The grammatical categories (parts of speech) are lexical classes, which have different grammatical functions in the language. They are divided into closed and open classes. The open word classes found in Akuntsú are nouns, verbs, adjectives and adverbs. The nouns and verbs are the major open class categories, and adjectives and adverbs are smaller ones. Thus, according to their pragmatic functions, nouns tend to function as arguments, verbs tend to function as predicates, and adjectives as attributes. On the other hand, according to their grammatical function, nouns tend to combine with grammatical categories that denote for example, case, while verbs tend to combine with categories that denote aspect, modality, and voice. Adjectives may follow certain categories of nouns or verbs, but not all of them.

The closed classes are composed by pro-forms, particles, postpositions, ideophones, and interjections. The pronouns are divided into two main classes, the independent and dependent pronouns. The dependent pronouns are not morphologically free morphemes; they must be cliticized to either a member of the verbal category or of the noun category (or to postpositions). The demonstratives in this language express orientation with relation to the speaker or listener, expressing distance and position. Particles may convey aspectual, focus, and negation meanings, and the way that events end up in the discourse. Ideophones\(^76\) are very common in the language and play an important function for communicative

\(^{76}\) Ideophones are here described as "marked words that vividly depict sensory events" (Dingemanse 2011:83).
purposes between Akuntsú people and non-Indians. Interjections are words that express overflow of emotion and speaker attitude; unlike ideophones, the interjections cannot be used within syntactic constructions.

3.3.1 Nouns

The nouns refer to the most time-stable concepts in the language. They designate stable entities and they function as arguments or heads of arguments as shown in the bold words (3.11) below.

**HEADS OF ARGUMENTS**

(3.11) *Konibu* apara *ko-a*
Konibú banana ingest-THV
‘Konibú eats banana’

Furthermore, nouns can also function as predicates, as seen below in the boldfaced words:

**NOUNS AS PREDICATES**

(3.12) *kitʃe* aramĩra
1PL.INCL woman
‘We are woman’

Nouns can also occur in postpositional phrases (3.3a-b).

(3.13) a. *te=φ-boro* etfe
3COR=R-back DIFF
‘(It's) over his own back’

b. *tabit* ete
garden REL
‘In the garden’
The categories of nouns included in Akuntsú are: proper, common, dependent (inalienable) and independent (alienable) nouns. Morphologically, common nouns differ from proper nouns. ‘Proper’ nouns do not take the determinative marker, as shown in (3.14).

**COMMON**

(3.14) \( taipik \ \theta-ok^waj \quad t=\theta-ok^waj-et \)

holler.monkey R-tail \hspace{1cm} 3s=R-tail-DET

‘Holler's monkey tail, its tail’

**PROPER**

(3.15) \*Pupak-et

Pupak-DET

‘the Pupak’

**DEPENDENT (INALIENABLE) NOUNS**

These are nouns that require a possessor, i.e., nouns that are morphologically dependent (inalienably possessed). See some examples of body parts, plant parts and kinship parts:

(3.16) **Body parts** | **Plant parts** | **Kinship terms**
--- | --- | ---
(a) \( o=\theta-anam \) | b. \( \text{apara } \theta-pe \) | c. \( ki=\theta-ti \)
1s=R-head | banana R-peel | 1PL.INCL=R-mother
‘my head’ | ‘banana’s peel’ | ‘our mother’

d. \( e=\theta-boro \) | e. \( \text{kipek } \theta-kit \) | f. \( \text{Pupak } \theta-top \)
2s=R-back | papaya R-seed | Pupak R-father
‘your back’ | ‘papaya’s seed’ | ‘Pupak’s father’

**INDEPENDENT (ALIENABLE) NOUNS**

Alienable nouns are those where the inclusion of a possessor is not obligatory.

(3.17) a. \( k^wai \) | b. \( ororo \)
‘stone’ | ‘cotton’

In certain pragmatic contexts these nouns may be possessed, though it is not obligatory. They may be possessed when they begin to be part of the speakers’
personal/daily activities. In (3.18a) the stone placed at the fireplace is used as a support for their pots, while in (3.18b) the cotton is part of the material used to weave their bracelets.

(3.18) a. ə=ø-kʷai
   1s=r-stone
   ‘my stone’

b. əfe ø-oro
   1PL.EXCL R-cotton
   ‘our cotton’

3.3.2 Verbs

The verbs are classes of words that denote action, processes, or states. The arguments may codify a subject or an object. Verbs obligatorily receive pronominal clitic agreement markers, though some exceptions are found; for example, when the subject is third person or the subject was cited earlier in the discourse, the verbs in such cases do not take overt pronominal markers. Verbs may have only one argument (intransitive verbs), two arguments or they may have three arguments: a subject, a theme, and a recipient (transitive verbs).

**INTRANSITIVE**

The intransitive verb below takes one obligatory argument, the subject pronoun ki=‘1PL.INCL’, as shown in boldface:

(3.19) ki=ʃet-a=ra kom
   1PL.INCL=leave-THV=HAB PROJ
   ‘We will leave (as usual)’

**TRANSITIVE**

**TWO-ARGUMENTS**

The verb below requires two arguments: the subject Puɾa and the object pronoun i=‘3s’, as following:
THREE-ARGUMENTS

In the example below, the verb õ ‘to give’ may allow three arguments: the subject Tʃaruj, the object kijpit ‘fish’, and an indirect object (not obligatory) Kani:

(3.21)  Tʃaruj  kijpit  õ-a  te  Kani=bõ
        fish   give-THV  FOC  Kani=DAT
     ‘Tʃaruj gave fish to Kani’

Verbs can be nominalized, and as such, they can occupy the position of arguments in the sentence:

(3.22)  Karow  et-ap  t-ek  iw
        Carol  sleep-NMLZ  R-house  rotten/ugly/bad
     ‘Carol's bed is damaged’

3.3.3 Adjectives

The class of adjectives includes words that describe attributes or qualities. This class is here defined as a class that modifies nouns—a notional definition that was proposed for other languages as well. Additionally, adjectives can also function as predicate complements. Examples of adjectives modifying nouns and adjectives as predicate complements follow:

ADJECTIVE AS NOUN MODIFIERS

(3.23)  a.  potʃek  nij
        thing  striped
     ‘Striped notebook’

           b.  pero  ø-okwaj  t=ø-okwaj  perek
                macaw  R-tail  3s=R-tail  long
     ‘Macaw's tail, its long tail’
ADJECTIVES AS PREDICATES

(3.24) a.  \( Tʃaruj \ ten \ te \)
    \( Tʃaruj \ strong \ FOC \)
    ‘\( Tʃaruj \) is strong’

b.  \( t=akop \ te \)
    \( 3S=hot \ FOC \)
    ‘It is hot’

Context: after touching the hot pan.

A list of adjectives encountered in the language is given in table 3.4 below.\(^77\)

<table>
<thead>
<tr>
<th>DIMENSION</th>
<th>tfokin</th>
<th>‘small’</th>
<th>ika</th>
<th>‘short’</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>perek</td>
<td>‘wide/long’</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>aon</td>
<td>‘round/square’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There are also two morphemes that express dimension -atʃo ‘big’ and -iɪn ‘small’.

<table>
<thead>
<tr>
<th>AGE</th>
<th>pagop</th>
<th>‘new (thing)’</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pagop</td>
<td>‘young.man’</td>
</tr>
<tr>
<td></td>
<td>kem toka</td>
<td>‘young.woman’</td>
</tr>
<tr>
<td></td>
<td>baba</td>
<td>‘woman (after having a child, middle-aged)’</td>
</tr>
<tr>
<td></td>
<td>kipi</td>
<td>‘elder/worthless’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COLOR</th>
<th>kop</th>
<th>‘red’</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>k”erep</td>
<td>‘black/dark’</td>
</tr>
<tr>
<td></td>
<td>tfaro</td>
<td>‘yellow’</td>
</tr>
<tr>
<td></td>
<td>pak</td>
<td>‘white’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHYSICAL PROPERTY</th>
<th>ten</th>
<th>‘hard/heavy/strong’</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>nɪŋ</td>
<td>‘striped’</td>
</tr>
<tr>
<td></td>
<td>nɪŋ</td>
<td>‘soft’</td>
</tr>
<tr>
<td></td>
<td>tʃobe</td>
<td>‘delicious’</td>
</tr>
<tr>
<td></td>
<td>kire</td>
<td>‘not delicious/bad’</td>
</tr>
<tr>
<td></td>
<td>kon</td>
<td>‘sweet’</td>
</tr>
<tr>
<td></td>
<td>pekāj</td>
<td>‘bitter’</td>
</tr>
<tr>
<td></td>
<td>pekāj</td>
<td>‘wet’</td>
</tr>
</tbody>
</table>

\(^77\) The semantic division below follows Dixon (2004:3)

\(^78\) The word kipitʃiʃk may be considered a lexicalized word formed from ki ‘liquid’ + pitʃik ‘cold’.
<table>
<thead>
<tr>
<th>VALUE</th>
<th>ADJECTIVAL ROOTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>bago</td>
<td>‘dry’</td>
</tr>
<tr>
<td>tam</td>
<td>‘full’</td>
</tr>
<tr>
<td>kʷiri</td>
<td>‘empty/clean’</td>
</tr>
<tr>
<td>petje</td>
<td>‘good (non-human)’</td>
</tr>
<tr>
<td>iw</td>
<td>‘ugly/rotten/bad’</td>
</tr>
<tr>
<td>tfame</td>
<td>‘beautiful/good (human)’</td>
</tr>
</tbody>
</table>

Table 3.4 - Sample of semantic types of adjectives roots.

In Akuntsú, there are few true adjective words (as presented in Table 3.4 below), in comparison to the number of nouns and verbs found in this language. They would be considered a closed class due to its finite number of words; however, I will keep them into the open class, since they share some characteristics with nouns and verbs (see Chapter 6 for further details).

### 3.3.4 Adverbs

The adverbs, like the adjectives, form a small class, diverging from the other prototypical open classes, the noun and verb classes. Adverbs are characterized as modifiers of verbs, adjectives, and other adverbs. Besides adverbial roots, the language uses reduplication and ideophones to express some adverbial notions, especially manner and degree. Morphologically, adverbs do not differ from adjectives, especially those called manner adverbs and locative adverbs. However, they are included into a separate class by means of syntax, since only nouns and adjectives can function as arguments of verbs (as detailed in §6.2.1). More on adverbs in chapter 6.
ADVERB ROOT CODING TEMPORAL POINT

(3.25) a. *erape* o=$kw^*$a-t-*$kom*
tomorrow 1s=leave-THV PROJ
‘Tomorrow I will leave’

b. *Ariano* te=ita *kirê*
Adriano 3COR=arrive today/now
‘Adriano arrives today’

REDUPLICATION AND IDEOPHONES - MANNER ADVERB

(3.26) iki *kw$at^*$at-ka
water boil-boil-TR
‘The water is boiling (vigorously)’

In addition, locative expressions also present adverbial function, such as place, direction, and manner. An example of this case is seen in (3.27) below:

LOCATIVE MEANING

(3.27) pot$ek$ mo-mo te=jâ o=t-*$ek* et$fe$
thing IDEO-RED 3COR=sitting 1s=R-house DIFF
‘The notebook stayed for long time in my house’

3.3.5 Pro-forms

There are pro-forms used in this language to replace nouns or noun phrases. The pro-forms are divided into personal pronouns and demonstratives. The pro-forms refer to the arguments of a predicate grammatically, and not lexically as the nouns do.

3.3.5.1 Personal pronouns

The personal pronouns are divided into two sets: dependent and independent pronouns. There is also a set of emphatic pronouns for first and second person (only). Below some of the pronouns are exemplified in their syntactic positions.
SUBJECT OF TRANSITIVE

(3.28) a. \textit{kitfe tawtfe ko-a}\n1PL.INCL peccary ingest-THV\n‘We eat peccary’\n
b. \textit{en i=korom-ka}\n2s 3s=cut-TR\n‘You cut it’

SUBJECT OF INTRANSITIVE

(3.29) \textit{o=et-a-ra o=toa}\n1s=sleep-THV-HAB 1s=lying\n‘I am going to sleep’

OBJECT

(3.30) \textit{k"a\^e te i=pit-ka}\npot 3s 3s=scrape-TR\n‘The pot, she is scraping it’

GENITIVE RELATION

(3.31) \textit{o=\^o-kere petfe}\n1s=R-rib good\n‘My good rib’

EMPHATIC

(3.32) \textit{er\^e e=\^o-po t/oga er\^e}\n2s.EM 2s=R-hand bite 2s.EM\n‘You bite your hand’

3.3.5.2 Demonstratives and indefinite pronoun

The demonstratives in this language express their deictic reference point, showing their space location in relation to the speech act (distance/person-oriented). The demonstratives also indicate the position (laying, sitting or standing) of the referent point.
Demonstratives can occur as noun specifiers or as predicate complements (more on demonstratives in §4.8.2). Some examples are described below:

DEMONSTRATIVE PRONOUNS

(3.33) a. ote t-ek no jērom tfok
1PL.EXCL R-house other DEM build
“Our other house, they built that one”

b. jē kem+ki jē kem+ki=rom
DEM breast+liquid DEM breast+liquid=NEG
“This one has breast-milk, this one doesn’t have breast-milk”

In Akuntsú, there is also the indefinite pronoun no ‘other’ (more on this pro-form in §4.8.3)

INDEFINITE PRONOUN

(3.34) e=t-et no?
2s=R-name other
“What is your other name?”
Lit: Is there your other name?

3.3.6 Particles

The particles in Akuntsú are classified as phonologically independent words. The particle can be linked up in broader constituents with different sorts of predicates according to their function. Particles are defined here as a free-standing morpheme that do not undergo any derivational or inflectional process. Semantically, it is hard to define them because they are a heterogeneous class. The particles can be divided up among discursive, negation, focus, interrogative, and modality, among others. Some examples are provided below.

(3.35) o=ø-atap āka ē ē o=ø-atap ŵk”a on
1s=R-hair that.way IDEO IDEO 1s=R-hair wash 1s
“My hair, that way, I wash my hair”
3.3.7 Postpositions

Postpositions are a closed class. It contains a very small number of morphemes that cannot undergo derivational or inflectional processes. Postposition phrases may function as adverb phrases syntactically. The postpositions differ from nouns, adjectives, verbs, adverbs and particles, as following:

1. verbs take the thematic vowel and postpositions don’t;
2. the main difference from particles is that postpositions give peripheral status to the noun phrase that they are linked to. In addition, postpositions are a class that does not combine with any inflectional morphology, distinguishing them from nouns, adjectives and verbs;
3. postpositions differ from adverbs mainly because the latter cannot not go together with nouns, as postpositions do.

These and other discussions on postpositions are presented in further chapters (see §4.3.1.1). A sample postposition is presented below:

(3.36) te=ø-ti puru-ru aj imimere etʃe
3COR=R-mother IDEO-RED stay Omerê DIFF
‘His mother comes and stays around Omerê’

3.3.8 Ideophones

Ideophones are very common in Akuntsú. The ideophones and their representation of iconicity illustrate the speaker's life experience. Ideophones are used in narratives, natural conversations among themselves, and with non-Indians (more on ideophones and communicative purposes in chapter 7). A few examples of ideophones used in sentences are illustrated in the following:
(3.37) a. \( on \ i=ta \text{ tfok-tfok} \)
\[ 1s \ 3s=\text{plant IDEO-RED} \]
‘I am planting it, planting, planting’

b. \( \text{tfok-tfok atiti ta} \)
\[ \text{IDEO-RED corn plant} \]
‘planting, planting, (I am) planting corn’

3.3.9 Interjections

Interjections in Akuntsú are words that reflect the speakers’ reaction and emotion to different situations. They may express surprise, agreement, and other reactions related to attitude, feelings, etc. There is no gender distinction in the use of interjections - interjections are gender-neutral; all speakers may use them when convenient.

3.4 Summary

The purpose of this chapter was to provide a definition of clitics, affixes and particles employed during this chapter. In addition, it provided an overview of the inflectional and derivational processes in this language.

It was also demonstrated that there is only one class of relational prefix in this language, and unlike Tupí-Guaranían languages, the occurrence of these prefixes in Akuntsú is limited to nouns. Also presented was an overview of the grammatical classes in this language and a brief description of the lexical classes: (a) open classes—nouns, verbs, adjectives and adverbs—and (b) closed classes—including the remaining lexical words found in this language.

Some of the main findings are presented below:
Table 3.5 - Sample of types of morphemes.

<table>
<thead>
<tr>
<th>MORPHEMES</th>
<th>CLASSIFICATION</th>
<th>CHARACTERISTICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oblique markers; pronouns; negation.</td>
<td>Clitic</td>
<td>• Bound morphemes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Attached to NPs and VPs</td>
</tr>
<tr>
<td>Inflection: imperative marker, relational prefix, aspectual markers.</td>
<td>Affix</td>
<td>• Bound morphemes</td>
</tr>
<tr>
<td>Derivation: causative markers, nominalizers, verbalizers.</td>
<td></td>
<td>• Attached to NPs and VPs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Inflection/Derivation</td>
</tr>
<tr>
<td>Negation, focus, discoursive markers.</td>
<td>Particle</td>
<td>• Independent morphemes</td>
</tr>
</tbody>
</table>

Below, the table summarizes the main classes in this language and the possible morphological processes that each lexical class can be involved in:

Table 3.6 - Summary of lexical classes and their allowed morphological processes.
CHAPTER 4
NOMINAL MORPHOLOGY

4.1 Introduction

This chapter aims to describe nouns in Akuntsú, focusing on their structural and functional properties. Nouns can be simple or complex: the complex nouns are the derived nouns and the compounds. The primary function of the nouns is as the nucleus of nominal phrases, as arguments, i.e. as subject/agent, object of transitive verbs, or the complement of postposition. Nominal phrases can also function as predicates where no overt copula is found.

This chapter describes the nominal classes, which are grouped into dependent, independent, proper and common (§4.2). Nominal morphology is discussed in (§4.3). Firstly, a discussion on oblique clitics and postpositions is presented, showing the difference between them, and then a brief discussion of the determinative morpheme. After that, the derivational morphology are presented (§4.4). In addition, this chapter presents the possible compound forms (§4.5), as well as addressing the types of nominal reduplication (§4.6), the structure of the noun phrase (§4.7), the function of pro-forms (§4.8), and numeral quantifiers (§4.9). Next, the behavior of genitive constructions is addressed with their relation to noun phrases (§4.10). Finally, the last section gives a summary of the chapter (§4.11).
4.2 Nominal class

In Akuntsú, the nouns are morphologically divided into independent (alienable) and dependent (inalienable) nouns. By “independent nouns” is meant those nouns that represent independent entities where no possessor is required, for example elements of nature, human beings, animals, plants (though not their parts), artifacts, and generic names (see §4.2.1). Dependent nouns are inalienable nouns (that is, inalienably possessed nouns) and include elements that form part of a whole, such as parts of plants or parts of the human body (see §4.2.2). The difference between dependent and independent nominal classes is seen in the morphology and semantics of those nouns. In other Tupían literature, different terminology is sometimes used to describe dependent and independent nouns: for example, “relative” and “autonomous” nouns. Some also distinguish among relative (alienable), autonomous, and absolute nouns (both of the latter two representing independent/alienable nouns).

In Akuntsú, besides the distinction between dependent and independent nouns, there are also morphological differences between proper and common nouns. Common nouns can be either independent or dependent nouns, while proper nouns can only refer to individuals and places names.

Gender and classifier markers are not expressed in the morphology of this language. The notion of plural is expressed through numerals, particles and through reduplication, where the absence of these morphemes usually conveys the singular.

---

80 More on nominal classes and the terminologies employed to describe Tupían languages see, for example Rodrigues (1981, 1996), Cabral (2001), Seki (2001), and Queixalós (2005).

81 See, for example, the description of Praça (2007) for Tapirapé and the description of Guajá nouns found in Magalhães (2007), both Tupí-Guaranían languages. Magalhães (2007) differently from Praça (2007) uses the term determiner, distinguishing three subclasses of nouns: one with obligatory determiners, another with optional determiners and the other that do not allow determiners directly associated with the noun.
Table 4.1 illustrates types of nouns according to their specific classes. In the left column, types of nouns found in the language are described, and examples of nouns are listed in the column of the nominal class that they belong to. Note, however, that common nouns and proper nouns are not included in this table.

<table>
<thead>
<tr>
<th>TYPES OF NOUNS</th>
<th>MORPHOLOGICAL CLASSIFICATION</th>
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<tr>
<td></td>
<td>Dependent class</td>
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<tr>
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<td>( e=\emptyset )-abatfo</td>
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<tr>
<td></td>
<td>2s=R-grandfather</td>
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<tr>
<td></td>
<td>‘Your grandfather sleeps’</td>
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<tr>
<td>Parts of a whole</td>
<td>( i=\emptyset )-kit</td>
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<td>3s=R-seed throw</td>
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<tr>
<td>Human possessions</td>
<td>( o=t-ek ) pagop</td>
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<td></td>
<td>1s=R-house new</td>
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<td>Artefacts</td>
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Table 4.1 - Types of Nouns
4.2.1 Dependent nouns

Semantically, dependent nouns (inalienable nouns) are characterized as elements that are part of a whole, kinship terms, and certain social terms, where their existence implies on the existence of other elements with which they are inherently associated. Dependent nouns are exemplified below (the dependent nouns are in bold):

(4.1) a. no t-et eni + am-ka on other R-name hammock + rope-TR.PL 1s ‘The other (thing’s) name I (say is) rope of the hammock’

b. Kani o=ø-ki Kani 1s=R-younger.sister kem+ki=rom breast+liquid=NEG ‘Kani, my younger sister, doesn’t have breast-milk’

c. kará t-ep =na Brazil.nut R-leaf =ESS ‘It’s for the brazil nut’s leaf ’

Context: Talking about the leaf that will serve to store the Brazil nuts.

Dependent nouns are different from independent nouns because the former form a syntactic unit with a possessive pronoun (or other type of noun), P + N (as in (4.1b)) or N + N (as in (4.1a and 4.1c)).

4.2.2 Independent nouns

The independent nouns (alienable nouns) do not require a possessor, however depending on the pragmatics; they may optionally take another lexical noun, a pronoun or another deictic element as their possessor. When a possessor is present, the syntactic construction formed requires a relational prefix (t- or ø-). See examples 4.2 (a-c), as following:

(4.2) a. o=ø-ko o=ø-ko te iw 1s=R-hook 1s=R-hook FOC ugly/rotten/bad ‘As for my hooks, they are damaged’
b. \( o=\phi-k^wako \ i-ko=na \)
   \( 1s=R\text{-guan} \ OBJ.NMLZ\text{-ingest}=ESS \)
   ‘It is my guan’s food’

In cases where the noun is used without a possessor (4.3 (a-c)), it is seen as an

independent from a possession construction.

(4.3) a. \( ko-tin \ eme \ peka \)
   hook-ATEN DEM bring
   ‘The small hook, bring this one’

b. \( k^wako \ kipek \ ko-a \)
   guan (sp.) papaya ingest-THV
   ‘The guan is eating papaya’

c. \( koro \ o=ere-k^wao \)
   bowl \ 1s=speak-TR.PL
   ‘Bowl, I say’

4.2.3 Proper Nouns

Proper nouns are understood as names that refer to unique entities that the

community identifies. The proper names can also be derived from words for common

nouns, depending on: (1) whether the intended referent in a given utterance is intended to be

one of the members of the community, and (2) when the speakers want to give nicknames to

people that they know. Konibú’s name\(^{82}\) is an example of a proper name that originated

from a common noun. Konibú explains that in fact his name is \( k^w \text{atin-atfó} \), which means

‘big rattlesnake’ in his own language, and that \textit{Konibú} is what they started calling him after

\(^{82}\) Konibú /koɾípo/ means ‘snake’ in Mekéns language (Galucio 2001:207).
contact with FUNAI. His name comes from the fact that he almost died when one of these snakes bit him.

One of the main reasons that they like to use nicknames is so that the person named in that way won’t know they are talking about him/her in conversations. Usually, the nicknames are from animals, fruits, or any other relevant attribute that the speakers think that the person may have.

In addition to first names, there are also other names that belong to the class of proper nouns: names of rivers and cities that they know or have heard about. Some well-known river names are: *ɨkitʃe* ‘River of the arrows,’ *ɨmimere* ‘Omerê,’ *ɨkipiton* ‘Deeper River,’ *tʃarap ki* ‘River of rays,’ *moेइ* ‘Moेइ’ and *kawra ki* ‘Kawra River.’

Proper nouns neither take demonstratives (see example (4.4) where a non-proper noun does take the demonstrative) nor appear with determinative markers (compare the proper name with no marker and the common name with determinative marker in (4.5)). These are the main morphological characteristics that distinguish proper nouns from common nouns.

(4.4)  
\[
\text{\'{o}=\text{\textquotesingle}$\varnothing$-kip atap=}\text{\textquotesingle}\text{erom } \text{\textquotesingle}ke \ \varnothing-\text{kip atap}
\]
\[
1s=R\text{-leg} \ \text{hair=}\text{\textquotesingle}\text{NEG} \ \text{DEM} \ \text{R\text{-leg} \ hair}
\]
\[
\text{\textquotesingle}My \ leg \ doesn't \ have \ hair, \ this \ one's \ leg \ has \ hair\text{\textquotesingle}
\]

(4.5)  
\[
\text{\textquotesingle}Karow \ \text{\textquotesingle}o=\text{\textquotesingle}$\varnothing$-mepirēpit-et}
\text{\textquotesingle}k’ep \ te
\]
\[
\text{\textquotesingle}Carol \ 1s=R\text{-grandchild.of.woman-DET \ climb \ FOC}
\]
\[
\text{\textquotesingle}Carol, \ my \ granddaughter, \ climbs\text{\textquotesingle}
\]

Proper nouns cannot form a single constituent with a determinant, as in \[\text{DET + PROPER NOUN}\]_{\text{sp}}. They are, rather, found in clauses where demonstratives form a single NP followed by another NP, which is filled by a proper noun, as indicated below:
(4.6) \( ke \) Kani  
DEM Kani  
‘This is Kani’

### 4.2.4 Common nouns

Common nouns are those that, morphologically, are optionally marked by the determinative morpheme.\(^{83}\) Common nouns can be either dependent (4.7) or independent (4.8).

(4.7) \( o=\phi-ei-t \)  
1s=R-blood-DET  
‘(the) my blood’  
Context: She was referring to the blood on the floor.

(4.8) \( ameko-t kwerep \)  
jaguar-DET black/dark  
‘the black jaguar’  
Context: Distinguishing cats; there were two cats at the FUNAI house—one black and the other yellow.

Common nouns can co-occur in the same NP with demonstratives. However, unlike proper nouns, the common nouns can enter into a constituent with the demonstratives, as in the following:

(4.9) \( ke t-ek \)  
DEM R-house  
‘That one’s house’

### 4.3 Nominal morphology

The language employs specific derivational morphemes, compounding, and reduplication strategies to derive and inflect nouns. In this section, oblique clitics and postpositions are presented (§4.3.1), followed by a description of determinative morphemes (§4.3.2).

---

\(^{83}\) See section 4.3.2 for more on determinative.
4.3.1 Oblique clitics and postpositions

The bound (non-clitic) oblique markers are here called case markers, while the term “postposition” is reserved only for cases of independent words, not bound forms which come after the word that they are grammatically related to. This view differs from some Tupían literature that calls fully bound affixes “postpositions.” Thus, the main difference between cases and postpositions as used in this study is whether the form referred to is attached (case markers) or whether it is an unbound word, i.e., postposition. Core arguments marked by case markers are not found in Akuntsú—i.e. there are no nominative, ergative or absolutive case markers as affixes on nouns, though this language has non-core arguments that are signaled by a specific clitic in Akuntsú.

Another term used in this section is “oblique marker,” i.e. clitics that have an oblique function; they can either be attached to nouns or to phrases. Note that clitics are defined as functional word-like entities, which have to be attached to a host (phonologically), and which can be attached to hosts that belong to different grammatical categories. Clitics are placed on a continuum scale in the middle between affixes and free (unbound) forms, where the free forms can include, for example, the postpositions. A morpheme is only called an affix when it is found in a stable location - when it is attached only to a specific lexical class (see more on clitics and affixes in §3.2.2). Figure (4.1) indicates the position of clitics on a continuum.

---

84 This is also the case of other Tupían languages, as described by Rodrigues (1999:115).

85 Some Tupían languages behave similar to Akuntsú, including for example: Mekéns (Galucio 2001), Mundurukú (Crofts 1973), Tuparí (Caspar and Rodrigues 1957, Rodrigues 1999), and Karitiana (Everett 2006).
Historically, nominal case-markers across languages (core and non-core arguments) might come from either locational nouns or from serial verbs (Givón 2001:95). Looking back to Proto-Tupán, Rodrigues and Cabral (2012) postulated that "Proto-Tupán probably lacked inflectional nominal cases for marking grammatical relations (...) the morphological cases found in some Tupán families are traceable from the Proto-Tupán postpositions" (2012:517).

The main oblique clitics and postpositions found in the language are described in the chart below. Note that all types of nouns (dependent, independent, proper and common nouns) can be bear oblique clitics or can be linked to postpositions, with no restrictions found so far. The glosses of each morpheme will be explained along this section.

<table>
<thead>
<tr>
<th>TYPES</th>
<th>MORPHEMES</th>
<th>GLOSSES</th>
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</thead>
<tbody>
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<td>Diffuse</td>
</tr>
<tr>
<td></td>
<td>ete</td>
<td>Relative/Comitative</td>
</tr>
<tr>
<td></td>
<td>pi</td>
<td>Inessive</td>
</tr>
<tr>
<td>Clitic</td>
<td>=(b)õ</td>
<td>Allative/Dative/Instrumental</td>
</tr>
<tr>
<td></td>
<td>=(e)ɾi</td>
<td>Ablative</td>
</tr>
<tr>
<td></td>
<td>=na</td>
<td>Essive/Translative</td>
</tr>
<tr>
<td></td>
<td>=pe</td>
<td>Locative</td>
</tr>
</tbody>
</table>

Table 4.2 - Summary of oblique clitics and postpositions.
Semantically, the above morphemes may indicate the following meanings: locative, associative and/or temporal meanings. Note that some morphemes can be associated with more than one meaning. The discussion below will be organized according to the type of morpheme: first will be a description of postpositions, followed by a description of oblique clitics.

4.3.1.1 Postpositions

a. etʃe

The postposition etʃe corresponds to a diffuse locative. This postposition expresses a non-precise location ‘through/over/at/along.’ With the diffuse locative the speakers refer to a location, but do not specify the exact location. For instance, in (4.10a) the speaker is talking about a thorn that got into her own thigh, but she is not sure exactly where it is.

(4.10) a. koni  tʃe o=ø-kip  etʃe
   thorn come 1s=R-leg DIFF
   ‘The thorn gets into my leg’

b. e=ø-boro  etʃe
   2s=R-back DIFF
   ‘It is along your back’

c. k"ako  aj  ek  etʃe
   guan (sp.) stay house DIFF
   ‘Guan stays at home’

d. ek  etʃe  i=maã
   house DIFF 3s=store/wear
   ‘Store it in the house’

b. ete

There are two semantic meanings related to the postposition ete: (1) the first meaning marks a noun as the point of reference; the meaning is associated with the notion
‘in relation to/about;’ and (2) the third meaning is the comitative postposition that expresses
the idea of ‘together with.’ The examples below indicate a noun or a situation as the point of
reference, indicating the subject matter that the speaker is talking about, meaning ‘about’ or
‘in relation to’, as shown:

(4.11) a. \[ te=\emptyset-\text{atap} \ ni-ap \ \text{ete} \]
\[ 3\text{COR}=\text{R-hair} \ \text{weave-NMLZ} \ \text{REL} \]
‘It is the braided of her hair’

b. \[ i=\emptyset-\text{toa-ap} \ \text{atf{o-ap} \ ete} \]
\[ 3\text{s}=\text{R-lying-NMLZ} \ \text{bathe-NMLZ} \ \text{REL} \]
‘His place of sleeping is wet’

c. \[ \text{aparapia} \ t-et \ \text{ete}? \]
\[ \text{non.Indian} \ \text{R-name} \ \text{REL} \]
‘What about the non-Indian’s name?’

d. \[ o=\emptyset-\text{mapi} \ \text{ete}? \]
\[ 1\text{s}=\text{R-arrow} \ \text{REL} \]
‘What about my arrow?’

It can also express an associative meaning (see example 4.12).

(4.12) \[ \text{en} \ \text{baj} \ \text{ete} \]
\[ 2\text{s} \ \text{buriti} \ \text{REL} \]
‘You are with the buriti’

The comitative postposition ete is attached to nouns. It semantically expresses the
idea of ‘together with.’ It indicates that the subject of the verb phrase is doing an event
accompanied by someone.

(4.13) \[ te=k\text{w-at-a} \ \text{Buko} \ \text{ete} \]
\[ 3\text{COR}=\text{leave-THV} \ \text{Buquá} \ \text{COM} \]
‘He leaves with Buquá’
The inessive postposition indicates the location where the element is immersed, or inserted in. It provides the sense of ‘interior’, as in the example (4.14a) that indicates that the subject is going to see the interior part of the house, as follows:

(4.14) a.  
\[ o=\phi\text{-}mepit \quad t\text{-}ek \quad pi \quad f\text{op-a} \quad on \]  
1S=R-daughter/son.of.woman R-house interior see-THV 1S  
‘I am going to see the interior of my daughter’s house’

b.  
\[ o=\phi\text{-}j\text{ê} \quad pi \quad ðk^w\text{a} \]  
1S=R-mouth interior wash  
‘I am washing the interior of my mouth’

c.  
\[ poga \quad \phi\text{-}pe \quad pi \quad ameko \quad i=\text{kora} \quad t\text{fe} \]  
1S=R-skin interior jaguar 3S=look.for come  
‘The interior of tortoise’s skin, jaguar comes to look for it’

The clitic =bõ can also be attached to the postpositional phrase, indicating the directionality of the element to the interior of something as in (4.15).

(4.15)  
\[ o=\phi\text{-}\text{kere} \quad a\text{t\text{\~i}} \quad pi=bõ \]  
1S=R-rib pain interior=ALL  
‘I have pain into my ribs’

More examples of oblique clitics are presented in the next subsection.

4.3.1.2 Oblique clitics

a.  \( =\text{(b)}\text{\~o} \)

The clitic \( =\text{(b)}\text{\~o} \) covers two separate meanings: (1) an allative meaning ‘towards/to/up to’ and a dative one ‘for;’ and (2) an instrumental one. The morpheme \( =\text{\~o} \) occurs after consonants while \( =bõ \) occurs after vowels. Below, examples with allative/dative meaning are presented:
(4.16) a.  $o=\phi$-tfipap tabit=$\ddot{o}$ ka
   1s=R-grandmother garden=ALL go
   ‘My grandmother went to the garden’

   b.  aparapia $k^w$ amoa t-ek=$\ddot{o}$
       non.Indian doctor/shaman R-house=ALL
       ‘to doctor’s house’

   c.  ek=$\ddot{o}$ ka
       house=ALL go
       ‘(He’s) going to the house’

(4.17) a.  erê=bô i=kij
   2s.EM=DAT 3s=take
   ‘For you to take it’

   b.  orê=bô karâ
       1s.EM=DAT Brazil.nut
       ‘It is brazil nut’
   Lit. For me, it is Brazil nut.

   c.  te=bô kite puru-ru-ru ke=bô nom
       3COR=DAT one IDEO-RED-RED DEM=DAT no
       ‘For him (there is) one coming back, for that one there isn’t’

   d.  kopiba i=t-ek pi=bô
       parrot (sp.) 3s=R-house interior =ALL
       ‘Parrot got into his house’

This clitic can also be attached to adverbs, as shown:

(4.18) a.  kojöpe=bô kijpit at kom
       night=ALL fish get PROJ
       ‘I will fish up to (until) the night’

   b.  erape te=$k^w$ at-a kirê=bô nom
       tomorrow 3COR=leave-THV today/now=ALL no
       ‘Tomorrow he’ll leave, today he doesn’t’
The second idea expressed by these morphemes is instrumental. The instrumental clitic is attached to the noun given the role of instrument used to achieve a goal, as shown in the example below:

(4.19) a. $papa\text{b}=b\text{ô} \quad iki \quad kiram-k\text{a} \quad en$
  
gourd=INS \quad water \quad pour-TR \quad 2s
  
‘You pour the water with the gourd’

b. $ma\text{pi}=b\text{ô} \quad dow$
  
arrow=INS \quad IDEO
  
‘(He) killed with a gun [...]’

b. $=(e)ri$

The ablative clitic $=(e)ri$ has two variations: $=ri$, which occurs after vowels, and $=eri$, which occurs after consonants. The ablative case expresses the meaning ‘away’ or ‘from,’ as in the following example:

(4.20) $i=\phi-\text{men}=eri \quad t\text{fo\text{f}e}$
  
$3s=R\text{-husband}=ABL \quad José$
  
‘From her husband, José’

The examples below show the ablative case functioning as the reason, source or cause of an event. For instance, in (4.21a) the papaya is the cause that motivates the event of staying home. In (4.21b) the reason for storing the kitchen is because of the jaguar, which may come to kill them. In (4.21c) shows that the parrot may die due to the hot weather. Example (4.21d) shows that the person is going to the forest with the purpose of killing wild pig and not fishing.

(4.21) a. $ki\text{pek} \quad at\text{ti}=ri \quad aj$
  
papaya \quad pain=ABL \quad stay
  
‘[...] because of the pain from the papaya, she stays’

b. $am\text{ek}=ri \quad i=ma\text{ã}$
  
jaguar=ABL \quad 3s=store/wear
  
‘[...] because of the jaguar, she stores them’
c.  kiakopatši=ri  pap  
    hot=ABL  die  
‘[...] because of the hot weather, it may die’

d.  tawtʃe=ri  mi-a  kijtip  nom  
    peccary=ABL  kill-THV  fish  no  
‘It's to kill the peccary, not fish’

In addition, the ablative also indicates the moment that an event starts, giving the 
point in time where the event begins. The ablative is attached to an adverb in the example 
below:

(4.22)  kirɛ=ri  ta  baja  kiw-kiw  
    Today=ABL  DEM  clean  IDEO-RED  
‘From now one, that one cleans it, ripping, ripping’

c.  =na

There are two semantic functions of =na: (1) to indicate an essive meaning, i.e., 
what something is, how it functions, or reporting what something's state is; and (2) to 
indicate translative function, which indicates the results of a change of state, ‘becoming X’ 
or ‘changing X.’ This morpheme is often used to indicate how the speaker considers the 
existing state of things. The clitic =na is here called ‘essive-translative’ (abbreviated ESS).

(4.23) a.  kʰe  poket-ap=na  
    game  roast-NMLZ=ESS  
‘Game animal for roasting’

b.  pow-pow  i-ko=na  
    owl  OBJ.NMLZ-ingest=ESS  
‘It will be owl's food (the bird that they killed)’

c.  kʰe=na  tawtʃe=na  takiɾap=na  tawpik=na  
    game=ESS  peccary=ESS  spider.monkey=ESS  black.monkey=ESS  
‘As for game animal, peccary, spider-monkey, black-monkey’
A change in the state of a noun is also represented by this morpheme, which seems to collapse two semantic meanings, i.e., the essive and the translative. The translative meaning indicates the results of a change, ‘becoming X’ or ‘changing X’. The examples below express more directly the idea of changing state. For instance, the example (4.24a) shows that the man, the one who became her husband, made the bracelet she was wearing.

(4.24)  a.  *mę*me  *mę*men  *mę*men=na
   3s=R-husband  OBJ.NMLZ-give  3s=R-son/daughter.of.woman husband=ESS
   ‘Her husband’s given (thing), her daughter’s husband (the one who became here daughter’s husband)’

b.  *i*ki  *pekā*  *a*=na
   water  cold  exist=ESS
   ‘There is cold water’
   Lit: It turned into cold water.

d.  *=pe*

   The meaning of the clitic *=pe* is to express the location of a noun with more precision, or to show exactly where it is placed. This clitic is semantically opposite to the diffuse locative postposition *etfē*.

   With respect to the semantic locational function of *=pe*, in example (4.25a), for instance, the speaker is telling someone to go to the river to get water, specifying what part of the bank river one should go to (by pointing to the direction). The same happens in the examples (4.25b-c) below:

---

*tato=na  tato  kʷakʷa  takip  kʷakʷa* [...]
*armadillo=ESS  armadillo  grab  spider.monkey  grab*
‘armadillo, (he) grabbed an armadillo, (he) grabbed a spider-monkey [...]’

---

86 The word *tato* ‘armadillo’ is not a loan from Portuguese ‘tatu’. The word reconstructed for the Proto-Tupí is **t’a(j)tu** (Rodrigues 2007b).
(4.25) a. \textit{iki \textit{at-a en iki}=pe}  \\
\textit{water get-THV 2s water=LOC}  \\
‘You get water at the river’

b. \textit{tierno \textit{k}^wiro=pe}  \\
\textit{chicha container=LOC}  \\
‘Chicha is at the container’

c. \textit{kip t-ep e}=\varnothing-\textit{anam}=pe  \\
\textit{tree R-leaf 2s=R-head=LOC}  \\
‘The leaf of the tree is on your head’

4.3.2 Determinative

The determinative\textsuperscript{87} is a nominal morpheme that can indicate the idea of specificity or familiarity of the noun. When the determinative morpheme expresses the idea of familiarity, both speaker and listener understand which element is being referred to (Dryer 2011).\textsuperscript{88} Note that it is not an obligatory marker and speakers tend to use it depending on the pragmatics of the situation. There are three allomorphs found so far: \textit{-t} (before vowels), \textit{-et} (before consonants), and \textit{-n} (before nasal vowels), as seen in the following examples:

(4.26) a. \textit{Enotej \textit{\varnothing-ei-t} \betauh}  \\
\textit{Enotej R-blood-DET}  \\
‘Enotej’s blood fell’

b. \textit{Kawra ki-t}  \\
\textit{Kawra liquid-DET}  \\
‘Kawra River’

c. \textit{tfarim\textperiodcentered \varnothing-ok\textasciicircum waj \ t=\varnothing-ok\textasciicircum waj-et [...]}  \\
\textit{hummingbird R-tail}  \\
‘Hummingbird's tail, its tail [...]’

\textsuperscript{87} The term ‘determinative’ is a term given by Rodrigues and Caspar (1957) that describes basically the same phenomenon presented here for Akuntsú.

d. akop te e=t-ek-et
   hot FOC 2s-R-house-DET
   ‘Your house is hot’

e. mepit-et jë jërom tiri
   woman/son.of.woman-DET DEM DEM two
   ‘These are the daughters, there are two there’

f. aramĩra-n-atfo
   woman-DET-INT
   ‘The big female’

g. aparapia-t kʰamoa o=iri-ka
   non.Indian-DET shaman 1s=heal-TR
   ‘The doctor healed me’

In addition, the determinative morpheme presents a case of argument tracking
through the discourse. That is, in discourse, when a previously introduced NP is repeated
later in the clause, the same NP may be repeated but with the determinative marker attached
to the repeated NP. In (4.27c), the determinative is used to refer back to some previously
mentioned referent, however the referent is known only for the speaker but not for the
listener, as illustrated below:

(4.27) a. te aj ko-a aj-et ko-a [...] 
   3s cajá ingest-THV cajá-DET ingest-THV
   ‘He eats cajá, (he) eats the cajá [...]’

   b. on i=kiram-ka iki tfoo kipitʃik iki-t āka [...] 
   1s 3s=pour-TR water IDEO cold water-DET that.way
   ‘I poured the water, I poured water, the cold water, that way [...]’

c. [...] aramĩra nom aramĩra aparapia dow 
   woman no woman non.Indian IDEO
   ‘woman no, woman, the Non-Indian shot’

   nako at-a āka iki φ-ape dow aparapia-t [...] 
   man get-THV that.way water R-path IDEO non.Indian-DET
   ‘[...] (they) caught men, that way, the river’s path, the non-Indian shot [...]’

163
The morpheme -(e)t, described in this section, was also analyzed in two other Tuparían languages: Tuparí (Rodrigues and Caspar 1957, Alves 2002, Seki 2002) and Makuráp (Braga 2005). Seki (2002:304-305) analyses the morpheme as a nominative suffix for the Tuparían language, while Rodrigues and Caspar (2007) and Alves (2004) analyze it as a determinative morpheme. Braga (2005), on the other hand, describes it as a genitive morpheme.

By looking at the occurrence of the determinative morpheme in Akuntsú, it is possible to affirm that its behavior in this language is similar to one analyzed for Tuparí (Cabral, Raul Tuparí, Isaías Tuparí and Barros (forthcoming)). Briefly stated, the authors present the morpheme -(e)t, in Tuparí, as a suffix that specifies the noun as the main topic of the discourse, which is familiar to the speaker (only).

4.4 Derivational Morphology

Derivational morphology affects both verbs and nouns. In this section, only derivational morphemes responsible for deriving nouns are discussed. Nominal derivation is formed through affixation onto verbal roots, creating derived nouns. Next, the augmentative and diminutive affixes will be described. These affixes derive nouns whose meaning changes, but whose lexical class does not change.

4.4.1 Derived nouns

The morpheme -ap derives nouns from transitive verbs (4.56-4.57) and intransitive verbs (4.58). A cognate suffix of the same shape and meaning is also described for languages related to Akuntsú (Alves (2004:67); Braga (2005:72); Galucio (2001:101) and
The nominalizer is known as **NAME OF CIRCUMSTANCE**, a term used by Rodrigues ((2001:112), cf. Braga (2005:78)) to refer to a morphosyntactic phenomenon characteristic of Tupían languages. The morpheme derives nouns from verbs giving them a meaning of place, time, instrument, means, cause or the product of the verbal action.89

**NAME OF CIRCUMSTANCE**

(4.28) a. ōjpe baja-ap =na
   snuff clean-NMLZ =ESS
   ‘It is for snuff-brush’

b. ōjpe ko-ap
   snuff ingest-NMLZ
   ‘Sniffer’

c. tokej et-ap
   ant (sp.) sleep-NMLZ
   ‘Ant’s sleeping place’

d. tʃop-a te parã-ap
   see-THV FOC break-NMLZ
   ‘She will see the clearcutting’

e. tawtfə tʃoga-ap
   peccary bite-NMLZ
   ‘Peccary's bite’

The other affix that derives nouns is the **OBJECT NOMINALIZER** -i-. Unlike the suffix -ap, the prefix -i- is only attached to transitive verbs. It always occurs after a noun or a pronoun in a possessive syntactic relation with the derived noun.90

---

89 There is also the suffix -at, which has a similar behavior to one found in Tupará, called **AGENT NOMINALIZER** (as proposed by Rodrigues and Caspar (1957)). This suffix derives nouns from transitive verbs, giving them a semantic status of agent. This nominalizer does not occur as frequently in the data as the nominalizer cited above, and it was only found with the verb ‘to ingest’ ko. However, I decided to not include in this dissertation due to the number of examples attested so far.

\[ e=ø-men \ pitoa ko-a-at \]
\[ 2S=R-husband \ tobacco \ ingest-THV-AG.NMLZ \]
   ‘Your husband is smoker’

90 The other related languages also present a cognate prefix: -i for Akuntsú, Mekéns and Tupará and -ître for
OBJECT NOMINALIZER

(4.29) a. taptot te=i-ko
    manioc 3COR=OBJ.NMLZ-ingest
    ‘Manioc, his own food’

b. kopkap o=i-at
    Annatto 1s=OBJ.NMLZ-get
    ‘Annatto, my caught (thing)’

Lit: Annatto of catching.

c. niam Tjaruj i-mok’a
    bracelet Tjaruj OBJ.NMLZ-make
    ‘Bracelet, Tjaruj’s manufacture’

d. o=i-ko  tok-k’o  o=jâ
    1s=NMZL-ingest  IDEO-TR.PL  1s=sitting
    ‘I am punching my food’

4.4.2 Diminutive and augmentative

Akuntsú employs a diminutive morpheme -tin and an augmentative -atʃo. The origin of these morphemes can be traced back to the Proto-Tupí **-ʔin and **-atʃu (Rodrigues and Cabral 2012:521). These morphemes refer to the size of something or the expansion of an event (if it is big or not). They are analyzed here as derivational morphemes (see also the difference between inflection and derivation in section 3.2.3) because of their semantics, changing the meaning of the noun, though the class is not affected.

DIMINUTIVE

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>(4.30) a. kipe ‘machete’</td>
<td>→ kipe-tin ‘knife’</td>
</tr>
<tr>
<td>b. apara ‘banana’</td>
<td>→ apara-tin ‘small banana’</td>
</tr>
</tbody>
</table>
c. ɨki ‘river’  →  ɨki-tin ‘stream/small tributary’
d. tawtə ‘peccary (Pecari tayassu)’  →  tawtə-tin ‘caititu (Pecari tajacu)’
e. mepit ‘son/daughter.of.woman’  →  mepit-tin ‘offspring’
f. ɨko ‘rusty-margined guan (Penelope superciliaris)’  →  ɨko-tin ‘black-fronted guan (Pipile jacutinga)’

The diminutive is used to talk about something with affection. In example (4.31), the speaker is reporting a story in which he is talking to his granddaughter.

(4.31) o=ø-tojɨpit-tin  e  tɨw  e  tɨw
1s=R-grandchild.of.man-DIM  DEM dark  DEM dark
‘My dear granddaughter (little granddaughter) this is dark, this is dark,’

ebapap ɨɾ tojɨpit-tin
eye  dimmish  grandchild.of.man-DIM
‘the eyes are shrinking, my dear granddaughter’

The diminutive -tin can also be attached to the noun mepit ‘son/daughter.of.woman’ expressing the meaning of small (or a very small thing) (4.32a-c) and offspring (4.33), forming a complex word.

(4.32) a. taptot  t-ep  mepit-tin
manioc  R-leaf  small
‘Small leaf of manioc’

b. kɨp  t-ep  mepit-tin
tree  R-leaf  small
‘Small leaf of a tree’

c. ɨkɨ mepit-tin
ax  small
‘Small ax’

(4.33) jőkora  mepit-tin
bird (sp.)  offspring
‘Bird’s offspring’

91 Knowing also as ‘queixada’ in Brazil.
Besides the affix \textit{-tin}, the notion of small size is also expressed by the adjective \textit{tfokin} (4.34a). The adjective can be reduplicated (and even triplicated) to indicate the degree of smallness (4.34b). \textit{tfokin} can also express a meaning of ‘little/few’ as in illustrated in (4.34c).

(4.34) a. \textit{en tfokin te} \\
2s small FOC  \\
‘You are small’

b. \textit{Aramira \ø-toa-ap tfokin-in-in} \\
Aramira R-\textit{lay-NMLZ} small-\textit{RED-RED}  \\
‘Aramira's hammock is very small’

c. \textit{tfokin i=ko-a} \\
little 3s=\textit{ingest-THV}  \\
‘(He) eats little (of) it’

In addition, the diminutive can be attached to nouns indicating the amplitude of some event, as for instance in (4.35) where \textit{-tin} indicates that the cracking of the hands was not louder, giving to the phrase an attenuative meaning.

(4.35) \textit{orë=bo po \ø-akå pia-tin \āka piiii} \\
1s.EM=DAT hand R-\textit{bone crack-DIM that.way} IDEO  \\
‘For me, there is small cracking of hand bones, that way, cracking’

\textbf{AUGMENTATIVE}

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>(4.36) a. \textit{kip} ‘leg’</td>
<td>\textit{kip-atfō} ‘wide leg’</td>
</tr>
<tr>
<td>b. \textit{apara} ‘banana’</td>
<td>\textit{apara-atfō} ‘big banana’</td>
</tr>
<tr>
<td>c. \textit{iki} ‘river’</td>
<td>\textit{iki-atfō} ‘big river’</td>
</tr>
<tr>
<td>d. \textit{k’w atin} ‘snake (generic)’</td>
<td>\textit{k’w atin-atfō} ‘rattlesnake’</td>
</tr>
</tbody>
</table>

The suffix \textit{-atfō} conveys the meaning of ‘big size,’ ‘tall,’ and ‘wide’, as illustrated in the following examples:
(4.37) a. *on o=ø-po-atfo en te tfo kin*
   1s 1s=R-hand-INT 2S FOC small
   ‘My hand is big, you have a small (one)’

b. *kip-atfo*
   tree-INT
   ‘Wide tree’

c. *Pupak kijtpit-atfo at-a kom*
   Pupáč fish-INT get-THV PROJ
   ‘Pupáč will get big fish’

In addition, speakers also make use of the ideophone *tfo* to represent the meaning of big size, and the vowel is often lengthened (more on ideophones in chapter 7).

(4.38) *ke borote-atfo=ri tfooo jërom baro-baro*
   DEM star-INT=ABL IDEO DEM star
   ‘That star is getting bigger, there it is the star (another type of)’

The word *tfoke* carries the feature of big size and also adds the sense of a person or thing growing up:

(4.39) a. *o=ø-eo tfoke*
   1s=R-belly big
   ‘My belly is big’

b. *i=tfoke tfo op en*
   3s=big see 2s
   ‘See the big one!’

c. *ko-a ko-a tfoke*
   ingest-THV ingest-THV big
   ‘[… ] he ate a lot and he got big!’
4.5 Compound forms

The noun in Akuntsú can consist of two or more elements that together form a lexical unit. Compound forms can be combined of two or three forms, including nouns and adjectives. This creates one lexical unit of two (or more) juxtaposed nominal or adjectival components. There are two types of compounds in the language: endocentric compounds where the juxtaposition of two independent words, which have their own stress, functioning syntactically as unit. Juxtaposed elements form a noun that has one of the meanings associated with one of the combined elements. On the other hand, exocentric compounds are the combination of two elements where the semantic result of such combination is a noun completely semantically different from the combined parts. Exocentric nouns also have independent stress, as endocentric nouns do. The exocentric compounds are those whose meaning denotes "something which is different from either of their free forms" (Aikenvald 2007:30).

According to Payne (1997:92-93), there are two criteria used to refer to something as a compound: (1) FORMAL CRITERIA: stress, unusual word order, morphophonemic processes—which are not the case in the Akuntsú language; (2) SEMANTICS: the meaning of a compound is either more specific or entirely different from the combined meanings of the word that make up the compound—this criterion is the one that most fit compounds in Akuntsú. ⁹²

However, one useful test to check for compound status is by checking whether or not combined elements allow the insertion of an extra element between them. This type of

⁹² Among the related languages, Mekéns has an unusual word order of noun and adjective when they form a compound. In compound words, the adjective comes first while in a noun phrase the adjective always follows the noun (Galucio 2001:105).
evidence has been the most efficient to differentiate noun phrases (that allow adjectives after the noun) and compound forms (where an adjective is not allowed among the elements in a compound).\textsuperscript{93}

\begin{equation}
\text{kijtpit pebo kop perek} \quad \text{But not} \quad *\text{kijtpit perek pepo kop}
\end{equation}

fish wing/fin red long

‘long fish (sp.)’

Each element of the compound carries its own stress. Besides the semantic criteria and the inserted element test, there are no other efficient formal criteria to differentiate compounds from noun phrases.

From the three patterns described in section 3.2.3 for the Tupían languages, Akuntsú compounds consist of only [NOUN + NOUN]. The cross-category compound of [NOUN + INTRANSITIVE.VERB] and [NOUN + TRANSITIVE.VERB] were not identified in Akuntsú. The other compound patterns found in Akuntsú are the forms [NOUN + ADJECTIVE]—since in this language adjectives are considered an independent (open) class—[NOUN - NOUN - ADJECTIVE], and [NOUN + NOUN + NOUN]. Note that the opposite order of [ADJECTIVE + NOUN] is not found in compounds (it does not occur in other morphosyntactic contexts either).

\textbf{Endocentric Compounds}

The nouns in juxtaposition form a syntactic unit of [DETERMINANT + DETERMINER], where the head of the juxtaposed elements is on the right. The examples below are semantically compositional in the sense that the meaning of the compound is a sum of the

\textsuperscript{93} This type of test is not uncommon. It was used to identify compounds in others languages too, as for example in Karo (Gabas 1999:114), a Tupían language that like Akuntsú there are no formal criteria to differentiate compounds and noun phrases.
meanings of its the components in the compound. A juxtaposed noun never refers to a specific item, but only those items generically, i.e., it does not denote a particular referent but the entire class—that is, in koro + am ‘rope of the bowl,’ the element rope does not refer to a particular bowl, but rather to ropes of bowls in general.

Some of these compounds are formed with alienable nouns, which can occur without any other element, forming a complete noun phrase; others are formed with inalienable nouns that cannot occur by themselves as a complete noun phrase, e.g. jāj ‘tooth’ and am ‘rope’.

\[N_1 + N_2\]

**MODIFIER + HEAD**

(4.41) a. āpīta + kʰ’am
   nose + sound
   ‘snoring’

    b. koro + am
   bowl + rope
   ‘rope of the bowl’

    c. boro + kip
   back + wood
   ‘spine’

    d. pi + ape
   foot + skin/bark
   ‘toenail’

Note that when there are more than two elements that form the compound, the head is still the right-most element. The examples in (4.42 a-d) present nouns with more complex formations than those presented above:

(4.42) a. o=∅-jāj + kip + pe
   1S=R-tooth + stick/wood + skin/bark
   ‘my gum’
b.  aw-aw + jã + pe
    child + sitting + skin/bark
    ‘uterus’

c.  ko + jã + pe
    ingest + sitting + skin/bark
    ‘stomach’

d.  eni + am + kip
    hammock + rope + stick/wood
    ‘hook of the hammock’

Other types of compounds with different lexical classes are exemplified below.

[NOUN + ADJECTIVE]

(4.43) a.  iki + tʃaro
    river + yellow
    ‘Yellow River (name of river)’

b.  tede + pak
    rubber + white
    ‘Candle’

c.  tapit + pît
    garden + old
    ‘capoeira’

[NOUN + NOUN + ADJECTIVE]

(4.44)  kij̃pit + pebo + kop
    fish + wing/fin + red
    ‘fish (sp.)’

94 Talking about the non-Indian’s hook.

95 I am analyzing cases such as this as an endoncentric compound with one of the components as the head of
compound, as I believe this is how the speakers view the structure of these compounds. However, it is possible
that others might want to analyze this (and other similar examples) not as endocentric compounds (with one
element as the head), but rather as exocentric, where none of the elements function as the head of the
compound.

96 According to wikipedia http://en.wikipedia.org/wiki/Capoeira, the word capoeira in Portuguese “may have
come from Tupi words ka’a (“jungle”) e pûer (“it was”); it is used to refer to an old part of the jungle that has
been burned and being used as a garden for Indigenous people or for non-Indigenous people.
EXOCENTRIC COMPOUNDS

Compounds here are treated as a combination of elements, which has a different semantic meaning from the sum of the combined elements. The resulting meaning is not predictable from the two (or more) constituents of the compound, as seen in the following examples:

(4.45) a. \( ebapap + pi + tfop-ap \)
   eye + interior + see-NMLZ
   ‘mirror’

b. \( otat + niŋ \)
   fire + striped
   ‘smoke’

c. \( ororo + pe \)
   cotton + skin/bark
   ‘clothes’

d. \( toa-ap + t-ep \)
   lie-NMLZ + R-leaf
   ‘mattress’

There are also examples of lexicalized compounds that form complex words. Some of them are illustrated below:

(4.46) a. \( te=(a)kat-a-ap^{97} \)
   3COR=fall-THV-NMLZ
   ‘rain’

b. \( epa + ki \)
   eye^{98} + liquid
   ‘tear’

---

97 Note that the phonological form of the verb ‘to fall’ is \( akat \), however, the first vowel of the verb is deleted to form the compound. The compound is always pronounced as [\( teˈkærəp \)].

98 \( epa \) is part of the radical of the word for ‘eye’ \( epapap \).
4.6 Nominal reduplication

Nominal reduplication signals the semantic meaning of plurality. Either the stem can be reduplicated (4.47) or the syllable can be reduplicated (4.48), where (4.48a) is a lexicalized form.

(4.47) a. | REDUPLICATED FORM | UNREDUPLICATED FORM
--- | --- | ---
pi-pi maã en | pi maã en
foot-RED store/wear 2S | foot store/wear 2S
‘You wear the feet’ | ‘You wear the foot’

b. | REDUPLICATED FORM | UNREDUPLICATED FORM
--- | --- | ---
aw-aw aw-aw wen-a | aw-aw erek-k’ə
child child finish-THV | child speech-TR.PL
‘Children are gone’ | ‘The child is talking’

(4.48) a. | REDUPLICATED FORM | UNREDUPLICATED FORM
--- | --- | ---
=o=mepit-epit | =o=mepit (Lexicalized Reduplication)
‘my granddaughter’ | ‘my daughter’

b. | REDUPLICATED FORM | UNREDUPLICATED FORM
--- | --- | ---
ba-bawro | bawro
‘many woodpeckers’ | ‘woodpecker’

c. | REDUPLICATED FORM | UNREDUPLICATED FORM
--- | --- | ---
iri-iribo | iribo
‘many locusts (sp.)’ | ‘(one) locust (sp.)’

Numeral quantifiers can also be reduplicated, as shown:

(4.49) | REDUPLICATED FORM | UNREDUPLICATED FORM
--- | --- | ---
tiri-tiri apara | tiri apara
two-RED banana | two banana
‘four (or many) bananas’ | ‘two bananas’

Note that the language also has reduplicated stems that are fully lexicalized; some examples are given below:

(4.50) tʃa-tʃakop ‘ant (sp.)’
kʷe-kʷe ‘scissors’
baw-baw  ‘wind’
beri-beri  ‘mat’
wēro-wēro  ‘European bee’
iro-iro  ‘bird (sp.)’
kora-kora  ‘chicken’

4.7 Structure of the Noun Phrase

An obligatory noun is the central constituent of noun phrases. The noun that forms
the head of the NP can be attached to personal pronouns (pron) (with the exception of the
proper nouns); it can be modified by demonstratives (dem), numeral quantifiers (quant), and
adjectives (adj).

The NP functions as an argument when used as subject or object of a predicate. The
order of the constituents is basically the one provided below. However, the order is not rigid
for quantifiers and demonstratives. The basic noun phrase template is presented here:

\[
[(\text{Dem}) \ (\text{quant}) \ (\text{pron}) \ (\text{rel prefix}) \ \text{Noun} \ (\text{Adj})]_{\text{NP}}
\]

\[\text{Figure 4.2} - \text{Noun phrase template.}\]

NPS - GENITIVE (POSSESSIVE)

Possessive noun phrases occur with pro-forms or with nouns. The noun phrase has a
fixed order where the pronoun always precedes the possessed element. When there is no
pronoun to determine the possessive relation, a noun is used in a genitive construction \([N +
N]\) (details in section 4.10).
NPs - WITH DEMONSTRATIVES

The demonstrative appears in a noun phrase coding spatial orientation and position of the element in discussion with respect to the hearer and speaker. They do not have a fixed order; they may appear before or after the noun. Note, however, that demonstratives can also appear as the head of a NP (see details in section 4.8.2).

(4.51) a. ǧe ǰôkora
       DEM bird
   ‘This bird (sp.)’

   b. ǰôkora ǰe
       bird DEM
   ‘This bird (sp.)’

NPs - WITH QUANTIFIERS

Numerals quantifiers can modify a noun phrase. As with demonstratives, the numbers can appear on their own, functioning as a noun (as in English: 'One is here').

(4.52) Ƿatʃo Ƿatʃe tíri ʈ=Ȝ-ajfi
       Patʃo Patʃe two 3s=R-wife
   ‘Patʃo and Patʃe were his two wives’

(4.53) Pura te kite
       Pura FOC one
   ‘Pura is alone’
Lit: Pura is one.

NPs - WITH ATTRIBUTIVE

This type of noun phrase contains a noun as its head and an adjective as its modifier.

The adjective baba can form a possessive (genitive) construction with the noun, as in (4.54) or the adjective can form a predicate by itself, as in (4.55).

(4.54) en aramĩra [aramĩra baba] Genitive construction
       2s woman woman woman (after having a baby)
   ‘You are woman, (a) middle-aged woman’
4.8 Pro-forms

The pro-forms described in this section are personal pronouns, demonstrative pronouns and indefinite pronouns.

4.8.1 Personal pronouns

Akuntsú has three sets of personal pronouns: independent, dependent and emphatic. The pronouns function as arguments of the predicate. The arguments can be expressed by both dependent (bound forms) and independent pronouns (free forms). The dependent forms represent the reduced form of their counterparts' free forms (with exception of first person exclusive, second and third person plural).

Dependent (bound) pronouns are attached to nouns, indicating the possessor of the phrase, and to verbs, indicating the arguments of the verb (object or subject). The first person plural is divided into two categories: the exclusive and inclusive persons. Among the dependent pronouns, there is only one coreferential pronoun to indicate third person\textsuperscript{99}. The dependent pronouns are clitics that function as pro-clitics in the clause.

On the other hand, independent (free) pronouns only function as subjects of transitive verbs. In verbs, there is only one pronoun attached directly on the verb, which is also the

\textsuperscript{99} More on coreferentiality in section 5.10
case of most Tupían languages (Rodrigues 1999).\textsuperscript{100} The below table shows all three types of pronominal forms in this language:

<table>
<thead>
<tr>
<th></th>
<th>INDEPENDENT</th>
<th>DEPENDENT</th>
<th>EMPHATIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1S</td>
<td>on</td>
<td>o=</td>
<td>orê</td>
</tr>
<tr>
<td>2S</td>
<td>en</td>
<td>e=</td>
<td>erê</td>
</tr>
<tr>
<td>3S</td>
<td>te</td>
<td>i= ~ t=</td>
<td>---</td>
</tr>
<tr>
<td>3COR</td>
<td>---</td>
<td>te=</td>
<td>---</td>
</tr>
<tr>
<td>1PL.INCL</td>
<td>kitʃe</td>
<td>ki=</td>
<td>kirê</td>
</tr>
<tr>
<td>1PL.EXCL</td>
<td>otʃe</td>
<td>otʃe\textsuperscript{101}</td>
<td>---</td>
</tr>
<tr>
<td>2 PL</td>
<td>iat</td>
<td>iat</td>
<td>---</td>
</tr>
<tr>
<td>3 PL</td>
<td>kejat</td>
<td>kejat</td>
<td>---</td>
</tr>
</tbody>
</table>

\textbf{Table 4.3} - Pronominal forms.

The personal pronouns, independent and dependent forms, can be fully replaced by full nominal phrases (NP), as illustrated below:

(4.56) a. \textit{Tʃaruj kwako poro-ka}  
\textit{Tʃaruj sweet.potato dig-TR}  
‘Tʃaruj is taking out the sweet potato’

b. \textit{on i=} poro-ka  
\textit{1s 3s=dig-TR}  
‘I am digging it up’

(4.57) \textit{on eni erepe on t=erepe}  
\textit{1s hammock tie 1s 3s=tie}  
‘I tie the hammock, I tie it’

In light of the data presented above, it might be important to ask: is it possible in

\textsuperscript{100} Details in §5.4

\textsuperscript{101} Note that otʃe, iat, and kejat are not considered clitics. These pronouns carry their own word-level stress and as such are not considered phonologically bound to their hosts. That some dependent pronouns of the language are considered clitic-like while others are not suggests that Akuntsú pronouns are still in transition from independent words to clitics.
Akuntsú for personal pronouns and NPs to co-occur in the same utterance? The co-occurrence of NPs and pronominal markers in the same utterance will depend on whether the full NP is in topic position or not, i.e., whether it is left-dislocated and placed outside of the phrase. Personal pronouns, which behave as the subject of intransitive clauses, are in complementary distribution with full NPs. However, the personal pronouns in object position can optionally co-occur with full NPs when the full NP is placed in topic position. The example below shows the noun kʷiro ‘recipient’ and the i= third person pronoun (both objects) in a non-complementary distribution:

(4.58) a. kʷiro on i=kita
    recipient 1s 3s=cover
    ‘Recipient, I cover it’

    b. pea en i=poka
    firewood 2s 3s=burn
    ‘Firewood, I burned it’

The structures above illustrate that the object noun in these cases is not an argument but an adjunct; thus, the dependent pronouns can co-occur with a noun in the same clause. The relation between the object noun and the object clitic is an anaphoric one, where the personal marker is the internal argument and the noun is merely an adjunct. The data above is similar to what is discussed, for instance, by Arregi (2003) for Spanish. In Spanish, Arregi (2003:33) calls the same situation found in Akuntsú a left-dislocation clitic (see also Payne 1997).

The main syntactic characteristics of independent and dependent pronouns are summarized in the table below and discussed further in this section.


Table 4.4 - Syntactic characteristics of pronouns.

**DEPENDENT PRONOUNS**

Dependent pronouns function as the subject markers of intransitive predicates (4.59), the object markers of transitive predicates (4.60), and the subject markers of stative predicates (4.61). Dependent pronouns also mark the possessors of possessed nouns (4.62).

(4.59) \( e=neme \)
\[ 2s=\text{run} \]
‘You ran’

(4.60) \( \text{kap } e=pit-\text{ka} \)
\[ \text{wasp } 2s=\text{hole-TR} \]
‘Wasp stung you’

(4.61) a. \( e=\text{pip} \)
\[ 2s=\text{be.afraid} \]
‘You are afraid’

b. \( o=\text{apinom} \)
\[ 1s=\text{hear} \]
‘I hear’

(4.62) a. \( e=\text{p-\text{Ã³pita tam}} \)
\[ 2s=\text{R-nose full} \]
‘Your nose is congested (Lit. Your nose is full)’

b. \( te=\text{p-men \ } te=\text{p-kijt at-a} \)
\[ 3\text{COR=R-husband } 3\text{COR=R-salt get-THV} \]
‘Her husband got his salt’
INDEPENDENT PRONOUNS

The independent pronouns assume the semantic function of agent (A) in transitive clauses, as follows:

(4.63) a. on \( i=mi-a \)
    1s 3s=kill-THV
    ‘I killed it’

b. en \( i=at-a \) ka
    2s 3s=get-THV go
    ‘You (go and) get it’

c. te kit ko
    3s seed ingest
    ‘He ate the seed’

d. kitʃe kip boja
    1PL.INCL wood cut
    ‘We cut the wood’

Note that in intransitive constructions the occurrence of independent pronouns is optional, as indicated by the parentheses.

(4.64) a. e=neme (en)
    2s=run (2s)
    ‘You ran’

b. o=atʃino (on)
    1s=sneeze (1s)
    ‘I sneezed’

Independent pronouns can also be attached to oblique markers, as exemplified below:

(4.65) en=ō ki pi?
    2s=ALL liquid interior
    ‘Is there liquid inside you?’

EMPHATIC PRONOUNS
Besides the dependent and independent pronouns, there is another set of pronouns that are used to emphasize the subject of a sentence; this class is called emphatic pronouns.

(4.66) a. orê a=erek-k’a
    1S.EM 1s=speech-TR.PL
    ‘I speak’

b. erê a=ø-tojêpit
    2S.EM 1s=R-grandchild.of.man
    ‘You are my grandchild’

Emphatic pronouns can also be attached to oblique clitics, as provided below:

(4.67) kirê=bô  ki=pera
    1PL.INC.EM=DAT 1PL.INCL=wake.up
    ‘We woke up’

4.8.2 Demonstrative pronouns

The demonstratives in Akuntsú form a closed class. They express a deictic notion, serving as pronouns, and can also appear with some oblique clitics. The demonstratives semantically indicate the spatial location of a referent (speaker or hearer), give it meaning as ‘there/here’, and indicate its position (standing, sitting, laying). So far, eleven demonstratives have been attested in this language, and a tentative summary of their functions in the language is presented in the table 4.5 below:

---

102 Demonstrative pronouns that can indicate the meanings ‘there/here’ can be also classified as adverbial demonstratives.

103 Aragon (2008:95) identified eme, jê, jërôm, and tejê. The demonstrative tejê presented in Aragon is not included in the class of demonstratives here.
From a pragmatic point of view, the demonstratives function to direct the hearer to the element mentioned in the present situation. In addition, the demonstratives also function as anaphoric and discursive deictics.

**a. eme**  ‘close to the speaker, lying’

(4.68) a. ororo +pe eme eme pi+kapa-kapa
cotton+skin DEM DEM foot+roll-RED
‘This shirt, this shoes’
b. *koɾo*am *eme* *t-et=na*  (Aragon 2008:96)
   bowl+rope DEM R-name=ESS
   ‘Rope's bowl, it is this one's name’

c. *eme maã eme*
   DEM cover DEM
   ‘This one, cover this one!’

b. *jê* ‘close to the speaker and the hearer, sitting’

(4.69) a. *i=no t-et jê t-et*  
   3s=other R-name DEM R-name
   ‘[...] his other name, this one's name’

b. *e=ø-toa-ap jê*  
   2s=R-lying-NMLZ DEM
   ‘Your hammock is this one’

c. *en e=ø-kem ki pi jê=bô nom*  
   2s 2s=R-breast liquid interior DEM=DAT no
   ‘You have milk inside, for this one there isn’t’

   DEM baby
   ‘This is a baby’

c. *jêrom* ‘far from speaker/hearer, sitting’

(4.70) a. *jêrom tfe bok*  
   DEM come stay
   ‘It is coming to stay there’  
   Context: Showing the place where they are going to build the house.

b. *jêrom tfe tobe*  
   DEM come disappear
   ‘From there it disappeared’  
   Context: where the fish moved and disappeared.

c. *jêrom ôpa en*  (Aragon 2008:97)  
   DEM beat 2s
   ‘You hit that’

d. *pero jêrom te aj*  
   macaw DEM FOC stay
   ‘Macaw stays there’
d. ē ‘close to speaker, suspended’

(4.71) ē apa
DEM banana
‘This is banana’

e. ērom ‘far from speaker/hearer, suspended’

(4.72) a. ērom apa
DEM banana
‘That is banana’

b. ebapa ērom
moon DEM
‘That is the moon’

f. ke Default demonstrative\(^\text{104}\)

(4.73) a. ke amon
DEM soap
‘This is soap’

b. ke itipope
DEM liana (sp.)
‘This is liana (sp.)’

c. ke jō
DEM here
‘This was here’

d. Pupak ko at-a ke=bō
Pupák fishhook get-THV DEM=DAT
‘Pupák takes the fishhook for this one’

e. ke=bō niram
DEM=DAT stand
‘For that one, (she) is standing’

f. ke=bō
DEM=ALL
‘To/for that one’

\(^{104}\) In Mekéns ke is analyzed as a pro-uninflected verb, which is used as an anaphoric element to reference information that occurred previously in the discourse (Galucio 2001:51). In Makuráp, ke is seen as a particle that reports someone’s words, reinforcing what the person is saying or the word of someone else that is reported by the speaker (Braga 2005).
g. \( ke \ tfe \)

DEM come

‘Coming from this (part)’

Context: Showing where he should cut the game animal.

h. \( ke=bõ \ nom \ t-\text{et} \)

DEM=DAT no R-name

‘For this one there is no name’

i. \( ke=bõ \ nom \)

DEM=DAT no

‘That is not’

Context: Answering if the thing is hers.

There is also the demonstrative \( ke=t\text{fa} \) which was found in only two examples:

(4.74) a. \( ke=t\text{fa} \ \beta\text{uh} \)

DEM=HIGH IDEO

‘This one fell’

b. \( ke=bõ=t\text{fa} \)

DEM-ALL-HIGH

‘To this one’

Context: the one sitting on the rail.

g. \( õ \) ‘close to the hearer, suspended’

(4.75) \( õ \)

DEM

‘This one’

Context: showing which banana’s stem I should get.

h. \( ò\text{rom} \) ‘close to the hearer, lying’

(4.76) \( ò\text{rom} \ a \)

DEM exist

‘There is one there’

Context: Talking about the bowl on the floor.

i. \( ta \) ‘far from hearer and speaker, standing’

(4.77) \( kïrê=r\text{i} \ ta \ baja \ kïw-kïw \)

today=ABL DEM clean IDEO-RED

‘From now one, that one cleans it, ripping, ripping’ (repeated from (4.22))
4.8.3 Indefinite pronoun

There is also the pro-form no ‘other’ that can function as the head noun of the phrase. However, it doesn't appear alone in the NP; that is, it needs to be specified by a noun, another demonstrative or by a personal pronoun.

**NOUN + NO**

(4.81) a.  
`ebapa no e`bapa no te=ita`  
moon other moon other 3COR=arrive  
‘other moon, other moon, he arrives’  

b.  
`ek no`  
house other  
‘other house’

**DEM + NO**

(4.82) a.  
`tojëpit jë no i=at`  
grandchild.of.man DEM other 3s=get  
‘Granddaughter, this other one, take it’  

b.  
`k”ako φ-ok”aj ke no φ-ok”aj`  
guan (sp.) R-tail DEM other R-tail  
‘Guan’s tail, this other one’s tail’
PRONOUN + NO

(4.83) a.  $i=no \quad i=ko-ra \quad en$
          $3s=other \quad 3s=ingest-HAB \quad 2s$
          ‘the other one, you ate it (as usual)’

        b.  $i=no \quad te=ita$
          $3s=other \quad 3COR=arrive$
          ‘The other one is arriving’

4.9 Numeral quantifiers

In this section, I present the numeral quantifiers identified in Akuntsú. This class is composed of only two lexical words: $kite$ ‘one’ and $tiri$ ‘two’ or ‘more than two.’ The numbers operate as modifiers of the head noun or as a noun in the phrase itself. They can appear before or after the noun; however the latter is not as frequent as the former in my data.

$kite$ ‘one’

(4.84) a.  $kite \quad tea$
          one  exist
          ‘There is one’

        b.  $kite \quad babape \quad at$
          one  gourd  get
          ‘Take one glass!’

        c.  $Buquá \quad kite \quad kora-kora \quad mi$
          Buquá one  chicken  kill
          ‘Buquá killed one chicken’

The numeral $kite$ may also code the meaning ‘alone’ or ‘by one self’ (4.85).

(4.85) a.  $orê=bô \quad kite$
          $1s.EM=DAT \quad one$
          ‘I am alone’

Lit. For me, there is one.
b. Konibu kite ip-a ka  
    Konibú one come.back.THV go  
    ‘Konibú (goes and) comes back alone’

tiri ‘two’ or ‘more than two’

(4.86) a. tiri no te=tʃet  
    two other 3COR=leave  
    ‘Two other (days), he leaves’

b. tiri o=ø-tak o=ø-tak o=ø-tak tiri  
    two 1s=R-daughter.of.man 1s=R-daughter.of.man 1s=R-daughter.of.man two  
    ‘[...] my two daughters, my daughter (and) my daughter, two’ (pointing to the daughters).

c. tiri pero a  
    two macaw (sp.) exist  
    ‘I have two macaws’

d. tiri-tiri-tiri tʃe ma i=ma en  
    two-RED-RED come keep/put/spill 3s=keep/put/spill 2s  
    ‘You come and put it, many of it’  

Note that numbers can operate as nouns, like for example in English ‘one cooks’. A possible reason explaining why, in Akuntsú, numbers can occur in a sentence without modifying a noun or without a demonstrative may be because the noun or demonstrative is not overtly expressed, and as such, the numeral is not really functioning as a noun, but rather as a modifier of an underlying noun which is not present on the surface. That is, they may just be serving their anaphoric function, as in example (4.87) below; the conversation below is about people who use wooden labrets, and for the last person mentioned in the discourse the word kʷajta ‘wooden labret’ is not mentioned. Part of the discourse is described, as follows:

(4.87) kʷajta e=bõ nõm orẽ=bõ kʷajta kite ke=bõ tiri [...]  
    wooden labret 2s=DAT no 1s=DAT wooden labret one DEM=DAT two  
    ‘Labial wood, you don't have, I have one labial wood, this one has two [...]’
4.10 Genitive constructions and the NP

Genitive (or possessive) constructions refer to two nouns, a pronoun and a noun, or a demonstrative and a noun in juxtaposition, which have a possession interpretation. There is no morphological marker to indicate the genitive construction. The order is [POSSESSOR + POSSESSED]. The three patterns found in the language are illustrated below:

(4.88) a. \( \text{kopiba} \ \phi-ok'aj \)

parrot (sp.) R-tail
‘Parrot’s tail’

b. \( \text{ke} \ \phi-pebo \)

DEM R-feather
‘This one’s feather’

c. \( o=\phi-pi \)

1S=R-foot
‘my foot’

It is also possible to have a complex genitive construction, where the noun possessor is attached to a pronoun \([\text{pro=}\text{N}]\) possessor juxtaposed to another noun \([\text{N}]\) possessed as follows:

(4.89) a. \( o=\phi-kipi \ t-ek \)

1S=R-young.sister R-house
‘My sister’s house’

b. \( \text{poraki} \ pebo t-ek \)

curassow feather R-house
‘house of feathers of curassow’

In Makuráp (Braga 2005) and Mekéns (Galucio 2001), a pronoun and an independent noun in a genitive construction are usually combined with a mediator of possession, indicated by the word \( \text{pet} \) in these languages. As presented in Aragon (2008:112), Akuntsú lacks this type of genitive construction with independent nouns. The Akuntsús’ relatives were all killed and they now raise animals as if they were their surrogate

\[105\] Dryer (1992) observed that [OBJECT + VERB] languages tend to have [POSSESSOR + POSSESSED] order.
children. The women raise their pets as children, carrying them everywhere, chatting with them. When I ask what they are, the women immediately refer to them with a kinship term. Thus, the Akuntsú do not use the same linguistic construction (genitive classifier construction) found in Makuráp and Mekéns, but instead use the possessed kinship term ‘son/daughter of woman’ for these possessed animals as follows:

(4.90) a. \( o=\phi\text{-mepit} \quad pow-pow \)  
\( 1s=R\text{-son/daughter.of.woman} \quad \text{owl} \)  
‘My son owl’

\[ b. \quad \text{pero} \quad \text{Aramíra} \quad \phi\text{-mepitēpit} \]
\[ \text{macaw} \quad \text{Aramíra} \quad R\text{-grandchild.of.woman} \]
‘Aramíra's grandson macaw’

4.11 Summary

This chapter presented the nominal classes in Akuntsú, including a description of the noun morphology found in this language, the difference between oblique clitics and postpositions where no core case markers are described for this language, a survey of the derived noun morphemes, and the behavior of diminutive and augmentative in Akuntsú.

<table>
<thead>
<tr>
<th>TYPES OF NOUNS</th>
<th>MORPHOLOGY</th>
<th>EXAMPLES AND/OR NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple nouns</td>
<td>✓ Attached to oblique clitics and linked to postpositions; ✓ Undergo reduplication and compound processes; ✓ Can receive the determinative morpheme; ✓ Can receive two derivational morphemes: diminutive and augmentative</td>
<td>Alienable nouns; Inalienable nouns Common nouns Exception: proper nouns can only take (some of) Inflectional morphology</td>
</tr>
<tr>
<td>Complex Nouns</td>
<td>• Can be attached to oblique clitics or linked to postpositions</td>
<td>Juxtaposition; Compound</td>
</tr>
</tbody>
</table>
In relation to word formation processes, compounds and reduplication were presented, and particular attention was given to possible types of compound forms and nominal reduplication. Later in the chapter, a noteworthy point includes the pro-forms in the language, divided into bound and free pronouns, which play an important role in the understanding of the alignment system.\textsuperscript{106} In addition, a description of demonstratives and numeral quantifiers was also presented.

\textsuperscript{106} More on alignment system in chapter 5.
5.1 Introduction

This chapter describes the verb phrase template (§5.2), followed by a discussion of the basic structure of verbs and the morphology that affects them in this language (§5.3). Also presented are the verbal formatives and other morphemes that are attached to verbs, the organization of the verbal arguments in the clause, the animacy hierarchy (§5.4), and the verb alignment system (§5.5).

The auxiliaries are presented in section (§5.6); morphemes characterized as transitivizers (§5.7 and §5.8), middle voice (§5.9), reciprocal and reflexive (§5.10) and the main aspectual forms related to verbs (§5.11) are also provided. Finally, the thematic vowel (§5.12) and an overview of mood and modality (§5.13) are described. A summary of this chapter is provided in section (§5.14).

5.2 Verb phrase

In Akuntsú, the verbal construction may contain: (i) a subject, which can be a full NP, a bound or free pronoun (depending on the type of verb); (ii) an object (in transitive clauses); and (iii) a verb. Depending on the type of the clause and its semantics, different morphemes are added to the verb. Also attested are adverbs, which can add complementary
information to the VP, and the focus particle te, besides other verbal particles. A template of the verb phrase is presented below:

\[
[(\text{NOUN or PRON}) \ (\text{FOC}) \ (\text{PREF}) \ \text{stem} \ (\text{SUFF}) \ (\text{PART}) \ (\text{AUX})]_{\text{VP}}
\]

**Figure 5.1** - Template of verb phrase.

The NPs function as the object and the subject of transitive verbs and as the subject of intransitive verbs — the NPs in subject function are outside the verb phrase constituent. The prefixes found in the VP are causative mő- ~ ô-, middle voice e-, and the object nominalizer i- (see details in chapter 4). The suffixes that may attach to the verbal stem include the thematic vowel a, the habitual -ɾa, nominalizer -ap (described in chapter 4), the auxiliaries, and the suffixes -ka and -kʷa. The aspectual particles include the projective kom and the iterative ekʷa. Depending on the type of clause, it may take an interrogative words, negative particle or imperative marker (more on §8.4, §8.5 and §5.13.1.2 respectively).

### 5.3 The lexical category verb

Verbs in Akuntsú consist of a verb root and affixes or clitics. The most important classification of verbs is according to their transitivity: (1) verbs that allow two or three arguments, including at least one obligatory direct object—transitive verbs, and (b) verbs that require only one obligatory argument—intransitive verbs. The differences between the two are determined by morphological and semantic factors, as described in this chapter.
5.3.1 Intransitive verbs

Intransitive verbs are differentiated from transitive verbs by the following key morphological and syntactic characteristics (among others described in this subsection):

<table>
<thead>
<tr>
<th>TRANSITIVE VS. INTRANSITIVE VERBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ TRANSITIVE VERBS employ the set of independent personal pronouns as the subject of the clause, while intransitive verbs employ the set of clitic personal pronouns to represent their subjects;</td>
</tr>
<tr>
<td>✓ INTRANSITIVE VERBS only require one obligatory argument, i.e., the subject, while transitives require at least two obligatory arguments, i.e., the subject and the object;</td>
</tr>
<tr>
<td>✓ INTRANSITIVE VERBS can bear the causative prefixes mõ- ~ õ- while transitives cannot;</td>
</tr>
<tr>
<td>✓ TRANSITIVE VERBS can bear the object nominalizer i-, intransitives cannot.</td>
</tr>
</tbody>
</table>

**Figure 5.2** - Transitive vs. intransitive verbs.

Verbs that exemplify intransitives include ‘to fall,’ ‘to dance,’ ‘to throw up,’ ‘to climb’ and ‘to come back,’ as seen in the following examples:

(5.1) a. \( o=akat-a \)
   1s=fall-THV
   ‘I fell’

b. \( ki=amõja \)
   1PL.INCL=dance
   ‘We dance’

c. \( o=k^wira \)
   1s=throw.up
   ‘I threw up’

d. \( o=k^wep-a \)
   1s=climb-THV
   ‘I climb’
e. \( o=\varnothing-\text{kipi} \quad te=ip \)
   \( 1s=R-\text{young.daughter} \quad 3\text{COR}=\text{come.back} \)
   ‘My young daughter came back’

Intransitive verbs can bear the causative prefixes \( m\text{õ}- \sim \text{õ}- \). The structure is \([\text{CAUS-} \text{INTRANSITIVE.PREDICATE}]\), which results in a transitive predicate, as in the following.107

Note that for some examples below, when vowel deletion rule is applied, the surface form is presented.108

(5.2) a. \( \text{kopiba} \quad te=\text{aot-a} \)
   parrot (sp.) 3\text{COR}=\text{go.out-THV}
   ‘The parrot has left’

b. \( \text{eti} \quad m\text{õ}-\text{aot-a} \)
   basket CAUS=\text{go.out-THV}
   ‘She caused the basket to leave’

(5.3) a. \( \text{on} \quad o=\text{atfo-a} \)
   \( 1s \quad 1s=\text{bathe-THV} \)
   ‘I bathe’

b. \( \text{kopiba} \quad m\text{õ}-\text{atfo-a} \quad \text{on} \quad [\text{kupiba} \text{må} \text{dʒoa} \text{ʔon}] \)
   parrot (sp.) CAUS=\text{bathe-THV} \( 1s \)
   ‘I make the parrot bathe’

(5.4) a. \( o=\varnothing-\text{mepit-et} \quad te=\text{et-a} \)
   \( 1s=R-\text{son/daughter.of.woman-DET} \quad 3\text{COR}=\text{sleep-THV} \)
   ‘My daughter sleeps’

b. \( o=\varnothing-\text{mepit-et} \quad \tilde{o}-\text{et-a} \)
   \( 1s=R-\text{son/daughter of woman-DET} \quad \text{CAUS=} \text{sleep-THV} \)
   ‘I make my daughter sleep’

(5.5) a. \( \text{iki} \quad te=\text{akat-a} \)
   water 3\text{COR}=\text{fall-THV}
   ‘Water is falling’

---

107 The matter of whether or not all intransitive verbs are allowed to take this causative morpheme is under investigation.

108 See vowel deletion rule in section 3.1.1.
5.3.2 Transitive verbs

The transitive verbs are defined as the verbs that require two arguments: the object (O) and the subject (S), where the former semantically indicates the patient (P) and the latter the agent (A). The transitive only allows one morpheme to be marked directly on the verb: the pronoun, which functions as a substitute for a noun. Note that in transitive verbs the pronominal prefixes can co-occur with an overt independent NP only when the full NP is placed in topic position (see section (4.8.1)). Examples of transitive verbs are provided below:

(5.6) a. \textit{kibapi poka on}  
\quad \text{bush burn 1s}  
\quad \text{‘I burned the bush’}

b. \textit{atiti tsaja-ka on}  
\quad \text{corn thresh-TR 1s}  
\quad \text{‘I'm threshing corn’}

c. \textit{eni + am tsop-a en}  
\quad \text{hammock + rope see-THV 2s}  
\quad \text{‘You see the rope of the hammock’}

d. \textit{eti tfere-ka te}  
\quad \text{basket cut-TR 3s}  
\quad \text{‘It's cutting the basket’}

e. \textit{eti pit-ka i=ko}  
\quad \text{basket hole-TR 3s=MOV.}  
\quad \text{‘He is going to stick the basket’ (moving to the direction of the basket)
There are also some types of transitive verbs that may allow more than two arguments: a subject, direct object and indirect object. The indirect object is marked by an oblique clitic. Examples of this type of verbs is illustrated below:

(5.7)  $T\bar{a}ruj\  ki\bar{t}pit\  \bar{o}\bar{-}a\  te\  Kani=b\ddot{o}$

$T\bar{a}ruj\  fish\  give-THV\  FOC\  Kani=DAT$

‘$T\bar{a}ruj$ gave fish to Kani’ (repeated from (3.14))

However, the indirect object is not obligatory, as shown:

(5.8)  a.  $T\bar{a}ruj\  ki\bar{t}pit\  \bar{o}\bar{-}a$

$T\bar{a}ruj\  fish\  give-THV$

‘$T\bar{a}ruj$ gave fish’

b.  $e=\emptyset-ti\  eti\  \bar{o}\bar{-}a\  te$

$2s=R\text{-}mother\  basket\  give-THV\  FOC$

‘Your mother gave the basket’

The transitive verbs differ from intransitives in the morphological markers they are able to take: for example, the object nominalizer $i$- that is only attached to transitive verbs

(5.9 a-b)

(5.9)  a.  $abat\bar{f}o\  i-mi\  ko-a-ra$

grandfather\  OBJ.NMLZ\text{-}kill\  ingest-THV\text{-}HAB

‘She is going to eat grandfather’s prey’

Lit: ‘She is going to eat grandfather’s hunting/killing’

b.  $o=\emptyset-mepit\  i-\ddot{o}\  ma$

$1s=R\text{-}son/daughter.of.woman\  OBJ.NMLZ\text{-}give\  keep/spill/put$

‘Put my daughter’s given thing!’

Lit: ‘Put my daughter’s giving thing (the thing that she gave)’

c.  $e=i-at\  at-a\  m\ddot{a}$

$2s=OBJ.NMLZ\text{-}get\  get-THV\  CERT$

‘He caught your thing’

Lit: ‘He caught your caught thing’

Of the two arguments required by transitive verbs, only one is marked on the verb, which will then follow the participant hierarchy of this language. Even though only one argument is marked on the verb, it is still possible to identify both the agent and the patient
due to the semantic roles of the participants involved in the discourse, which determine the identity of the agent and patient.109

5.4 Animacy hierarchy

As described in Silverstein ((1976) *apud* Foley 2007:414), there is a hierarchy regarding speech-act participants across languages, which involves a natural hierarchy for marking the topic in clauses where third person is usually subclassified according to humanness or animacy:

SPEAKER > ADDRESSEE > THIRD PERSON

SPEAKER > HEARER > PROPER NAME > COMMON NAME > ANIMATE > NON-ANIMATE

For the Tupían languages, Monserrat and Soares (1983) proposed the same hierarchy presented above for these languages, suggesting a 1 > 2 > 3 hierarchy for pronouns for Proto-Tupí-Guaraní. In the Tupían languages analyzed for their study, the authors showed that only one pronominal marker can be attached directly on the verb. For intransitive verbs, the authors state that the marking is systematic and clear; for transitive predicates, whether the A (agent) and P (patient) are marked on the verb will depend on the animacy hierarchy, which means that the one which is higher on the hierarchy scale will be marked on the verb.110

For instance, in the scenario 2 > 1 (a second-person agent acting on a first-person patient), the first person patient is higher than the second person agent, and therefore the 1st (patient) is procliticized/prefixed to the transitive verb while the 2nd (agent) is marked by an independent pronoun and placed outside of the verb proper.

109 It is also a well-known characteristic of other Tupían languages (Cabral and Rodrigues (2001)).

110 See also Zwicky (1977) for the participant hierarchy.
Among Tuparían languages, Mekéns was described as a language with 1/2 > 3 person hierarchy, where the first and second person are analyzed as higher than the third person based on a "non-deletability" argument: the third person is optionally omitted as the overt subject of transitive verbs, where first and second person subjects are not omitted in this way (Galucio 2001:80). So, Akuntsú is like Mekéns with the hierarchy 1/2 > 3 and not like Tupí-Guaraní language with the hierarchy 1 > 2 > 3.

5.4.2 Animacy and transitive verbs

In Akuntsú, when both the agent and patient are pronouns, the object pronoun is always attached to the verb (in boldface), as in the following:

**THIRD PERSON OBJECT PRONOUN**

(5.10) a.  
\[\begin{array}{lll}
\text{on} & i=tʃop-a \\
1s & 3s=\text{see-THV}
\end{array} \]

‘I see it’

b.  
\[\begin{array}{lll}
en & i=tʃop-a \\
2s & 3s=\text{see-THV}
\end{array} \]

‘You see it’

**FIRST AND SECOND OBJECT PRONOUN**

(5.11) a.  
\[\begin{array}{lll}
en & o=tʃop-a \\
2s & 1s=\text{see-THV}
\end{array} \]

‘You see me’

b.  
\[\begin{array}{lll}
on & e=tʃop-a \\
1s & 2s=\text{see-THV}
\end{array} \]

‘I see you’

The following depicts a scenario where third person is a full NP and the patient a pronoun, where the latter (the object) is marked on the verb (as occurs in the examples above):
(5.12) a.  *Konibu*  *e=tʃop-a*
   *Konibú*  2s=see-THV
   ‘Konibú sees you’

b.  *aparapia*  *o=tʃop-a*
   non.Indian  1s=see-THV
   ‘The non-Indian saw me’

c.  *tawtʃe*  *i=tʃəga*
   peccary  3s=bite
   ‘The peccary bit her’

In certain scenarios, both the subject and object may be third person nouns. In this situation, it is possible to find OSV, SVO\(^{111}\) or OVS order with no morphological marker on the verb to assign agreement either with the object or with the subject. The change in the word order is only possible due to the animacy hierarchy where animate nouns act on inanimate nouns, as shown:\(^{112}\)

**THIRD PERSON NOUN AGENT AND PATIENT**

(5.13)  
\[
\begin{array}{cccccccc}
O & S & V & S & V & O & O & V \\
\hline
\text{eti} & \text{Ururu} & \text{ni-a} & \text{Ururu} & \text{ni-a} & \text{eti} & \text{eti} & \text{ni-a} & \text{ni-ni-ni-a} \\
\text{basket} & \text{Ururu} & \text{weave-THV} & \text{Ururu} & \text{weave-THV} & \text{basket} & \text{weave-THV} & \text{weave-RED-RED-THV} \\
\end{array}
\]

‘Ururu is weaving the basket, Ururu is weaving the basket, she is weaving the basket, weaving, weaving ’

However, a different situation occurs when the patient is an inanimate third person noun. When the patient is a non-animate third person noun and the agent is a pronoun, the marker on the verb will be the one higher on the hierarchy scale, following the 1 > 2 > 3 hierarchy, as shown below. The sentences below were extracted from natural conversation.

---

\(^{111}\) When the object is placed after the verb, the object is usually preceded by the focus marker *te*. I also would like to note here that the word *eti* ‘basket’, in the SVO clause, carries a high pitch level.

\(^{112}\) Note that when both subject and object are proper nouns or animate nouns the object precedes the verb, and when it is placed after it, the focus marker is obligatorily inserted in the clause.
**Scenario:**

1 (Agent) > 3 (Non-animate Patient)

(5.14) a.  
\[ kipkap \quad o=baja \]
\[ annatto \quad 1s=clean \]
'I clean the annatto (by removing the leaves from the fruit)'

b.  
\[ kora^{113} \phi-\hat{\sigma}pita \quad o=kaw-k\hat{w}a \]
\[ chicken \quad R-egg \quad 1s=split-TR.PL \]
'I split the chicken's egg'

c.  
\[ kip \quad t-ep \quad o=\tilde{t}-a \]
\[ tree \quad R-leaf \quad 1s=smell-THV \]
'I smell the leaf of the tree'

2 (Agent) > 3 (Non-animate Patient)

(5.15) a.  
\[ o=\phi-j\tilde{a} + po \quad e=\tilde{\sigma}-a \]
\[ 1s=R-teeth + hand \quad 2s=give-THV \]
'You gave my spoon'

b.  
\[ komata \quad e=at-a \]
\[ bean \quad 2s=get-THV \]
'You've picked beans'

In the cases described in the above scenario, we identify a hierarchy involving the semantic roles, where the agent is hierarchically superior to the patient—that is, the agent is the one marked on transitive verbs. In light of this discussion, we may conclude that the agent is only marked on transitive verbs when the patient is an inanimate full NP, following the animacy hierarchy proposed given in Foley (2007). However, note that the speakers may choose either to mark the agent on the verb or to express the agent as a full pronominal form, without any apparent change in the semantics. Compare the examples below (further discussion in section 5.4 below):

\[ ^{113} \text{Note that the noun ‘chicken’ is not reduplicated in this example. Usually the speakers refer to ‘chicken’ as } kora-kora. \]
(5.16) a. \textit{komata} \textit{e}=at-\textit{a}  \\
\textit{bean} 2s=\textit{get-THV}  \\
‘You’ve picked beans’ (repeated from (5.15a))

b. \textit{komata} \textit{at-\textit{a}} \textit{en}  \\
\textit{bean} \textit{get-THV} 2s  \\
‘You’ve picked beans’

This may lead me to posit that the first and second person are preferred for marking on the verb, and that they are higher in the nominal hierarchy than the third person, demonstrating a hierarchy of 1/2 $>$ 3 for this language.

5.5 Alignment system

In Akuntsú, the person markers that indicate the subject of intransitive verbs and the object of transitive verbs are coded in the same way, and these two differ from the coding for subjects of transitive verbs. Thus, Akuntsú has an ergative-absolutive verb alignment system (Aragon 2008); the subject of intransitive verbs and the object of transitive verbs are coded as Absolutive, while the subject of transitive verbs is coded as Ergative (cf. Comrie 1989). However, when the transitive clause has an inanimate noun as the patient of the verb, there are two options of alignment in the language: (1) ergative-absolutive and (2) neutralized ergative-absolutive, as follows:

(1) ERGATIVE-ABSOLUTIVE PATTERN

The agent of transitive clauses (when pronominal) is coded by independent personal pronouns and placed before or after the verb phrase (5.17a); the patient (when signaled by a pronominal marker) is coded by clitic pronouns (5.17b). In intransitives, the subject (when pronominal) is coded by clitic personal pronouns (5.17c).

(5.17) a. \textit{en} \textit{t}=akima \textit{at-\textit{a}}  \\
2s 3s=\textit{cob} \textit{get-THV}  \\
‘You took its cob’
b. \( e=et-a \) (S of intransitive)
   2s=sleep-THV
   ‘I sleep’

c. \( Aramîra \=tjöp-a \) (O of transitive)
   Aramira 2s=see-THV
   ‘Aramira sees you’

(2) NEUTRALIZATION OF THE ERGATIVE-ABSOLUTIVE PATTERN

When there is an inanimate noun playing the role of the object and a pronoun functioning as the agent, the ergative-absolutive system may be neutralized—that is, the clitic pronouns can assume the function of agent and then be marked on the verb. In that sense, the nominal hierarchy is responsible for signaling the grammatical relations, and there is no overt marker in the NP or in the VP to indicate the role played by the NPs.

In other words, NPs ranked lower on the nominal hierarchy are inherently more likely to be patient than, for instance, humans, which are higher on the scale; i.e., it is more likely for humans to outrank non-human nouns, or, in other words, "it is 'natural' for a higher being to act or impinge on a lower being" (Song 2001:167). This suggests that there is no need to mark the A differently from P since the nominal hierarchy indicates the syntactic function of the NP, and thus, the difference between A and P being distinguished by pronouns is not obligatory. Among the Tuparían languages, this has been described only for Akuntsú. Future investigation will be undertaken to obtain more information on this structure.\(^{114}\)

Figure 5.3 below summarizes the main notions presented in this section:

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\(^{114}\) Additional aspects of ergativity, particularly in complex sentences, is still under investigation.
## Option 1 - Erg. Abs. System

**(I) Transitive - P Lower in the Animacy**

\[
en \ t=akima \ at-a \\
2s \ 3s=\text{cob} \ \text{get-THV} \\
\text{‘You took its cob’}
\]

**(II) Intransitive**

\[
e=t\text{fet-}a \\
2s=\text{leave-THV} \\
\text{‘You left’}
\]

## Option 2 - Neutralization

**(I) Transitive - P Lower in the Animacy**

\[
t=akima \ e=at-a \\
3s=\text{cob} \ 2s=\text{get-THV} \\
\text{‘You took its cob’}
\]

**(II) Intransitive**

\[
e=t\text{fet-}a \\
2s=\text{leave-THV} \\
\text{‘You left’}
\]

**Transitive when P is higher in the Animacy**

\[
on \ e=k^w\text{akʷ}a \\
1s \ 2s=\text{grab} \\
\text{‘I grabbed you’}
\]

<table>
<thead>
<tr>
<th>Examples</th>
<th>Alignment System</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Option 1 - Erg. Abs. System</strong></td>
<td>![Diagram]</td>
</tr>
<tr>
<td><strong>Option 2 - Neutralization</strong></td>
<td>![Diagram]</td>
</tr>
</tbody>
</table>

**Figure 5.3** - Alignment system.
5.6 Auxiliary

There are in Akuntsú auxiliaries that express the notion of ‘sitting,’ ‘lying,’ ‘standing,’ ‘walking,’ ‘moving,’ ‘coming’ and ‘going,’ as presented in the table below. In sentences with an auxiliary verb, a combination of main verb and auxiliary is often attested, though there are some exceptions to be found, as discussed later in this section.

<table>
<thead>
<tr>
<th>AUXILIARY</th>
</tr>
</thead>
</table>
| standing (upright position) | ām  
| sitting                 | jā  
| lying                   | toa  
| in movement             | ko  
| coming                  | tfe  
| going                   | ka  

Table 5.1 - Auxiliary.

The auxiliary represents a dynamic or static position of the subject, providing information about the subject’s posture or movement that is not included in the semantics of the verb—for example, instances of the verb ‘to sleep’ are found where the subject sleeps lying, sitting or standing. The choice of auxiliary depends on the subject's position at the moment of the event expressed by the main verb (5.18a-b). Some examples of this construction are presented below:

(5.18) a.  
\[ e=et-a \quad e=toa \]
\[ 2s=sleep-THV \quad 2s=laying \]
‘You are sleeping (laying down)’

b.  
\[ te=et-a \quad te=jā \]
\[ 3COR=sleep-THV \quad 3COR=sitting \]
‘You are sleeping (sitting)’
A pronominal marker is attached to the auxiliary, where there is a cross-referential marker between the main verb and the auxiliary.

**COMBINATION OF MAIN VERB + AUXILIARY**

- **jā ‘sitting’**

(5.19) a. \( t=\phi-\text{anam} \ ko-a \ e=j\dot{a} \)
\( 3s=\text{R-head} \ \text{ingest-THV} \ 2s=\text{sitting} \)
‘You are eating its head’ (while in a sitting posture)

b. \( \ddot{o}jpe \ ko-a \ o=j\dot{a} \)
snuff ingest-THV \( 1s=\text{sitting} \)
‘I am sniffing snuff (while sitting)’

c. \( \text{kora-kora} \ \text{nom} \ aot \ te=j\dot{a} \)
chicken no go.out \( 3\text{COR}=\text{sitting} \)
‘Chicken is not going out (sitting there)’

- **ko ‘moving’**

(5.20) a. \( e=t\text{fe}-a \ e=ko \)
\( 2s=\text{leave} \ 2s=\text{MOV.} \)
‘You are leaving’

b. \( \text{Aramira} \ \text{pitoa} \ at-a \ i=ko \)
Aramira tobacco get-THV \( 3s=\text{MOV.} \)
‘Aramira is getting tobacco’

c. \( \text{tabi} \ \text{tfop}-a \ i=ko \)
garden see-THV \( 3s=\text{MOV.} \)
‘He is going to see the garden (moving to see the garden)’

- **toa ‘lying’**

(5.21) \( ki=et-a-ra \ ki=toa \)
\( 1\text{PL.INCL}=\text{sleep-THV-HAB} \ 1\text{PL.INCL}=\text{lying} \)
‘We are going to sleep once again’
-ãm ‘standing’

(5.22) ameko te=et-a i=ãm
jaguar\(^{115}\) 3COR=sleep-THV 3s=standing
‘Jaguar sleeps (standing there)’

The positional verbs usually occur in a construction with a main verb. However, a positional verb can also occur independently without a separate main verb,\(^{116}\) but only in the case of -jã ‘sit, stay’ and the directional morpheme ka and te (as seen in further sections). In cases where positional verbs occur without a main verb, they function as the main predicate, as in the following examples:

(5.23) a. Enotej te=jã
Enotej 3COR=sitting
‘Enotej stays’

b. imimere ete o=jã tʃiramãti erek-kã\(^{117}\)a
Omerê DIFF 1s=sitting Txiramanty speech-TR.PL
‘Over the Omerê, I stay, (I) talk to Txiramanty’

Similar constructions in other Amazonian languages are often analyzed as ‘serial verbs’\(^{117}\). Here, I prefer to analyze them as auxiliary verb constructions, given that the set of possible verbs in this languages (which can occur in combination with others in the construction) is limited to just the six auxiliaries cited in table 5.1 above.

\(^{115}\) They use the same word for ‘jaguar’ to call domestic cats.

\(^{116}\) This is also attested in Mekêns (Galucio 2001:56).

\(^{117}\) Aikhenvald (2006:1) defines serial verbs as a "sequence of verbs which act together as a single predicate, without any overt marker of coordination, subordination or syntactic dependency of any other sort."
5.6.1 Auxiliary and Aspect

The auxiliaries (positional morphemes) express aspect, showing an on-going event, which occurs at the time referenced in the discourse event. The auxiliary provides information on the duration of the action, expressing the continuity of the event.

(5.24) a. \( o=\text{et-}\text{a-ra} \quad o=\text{toa} \)
\( 1\text{s}=\text{sleep-THV-HAB} \quad 1\text{s}=\text{laying} \)
‘I am going to sleep’
Context: He was talking while he was lying in the hammock.

b. \( j\text{èr}om \quad Mo\text{è} \quad k^{\text{w}}\text{iri} \quad boja \quad j\text{ò} \quad a\text{pe} \quad o=j\text{à} \)
\( \text{DEM} \quad Mo\text{è} \quad \text{açaí cut here path } 1\text{s}=\text{sitting} \)
‘There, it is Mo\text{è} where I cut açaí (the tree), here is the path [...]’

c. \( o=\text{tfop-a} \quad t\text{e} \quad \text{Enotej } t\text{e}=\text{ko} \quad o=\text{tfop-a} \quad t\text{fe} \)
\( 1\text{s}=\text{see-THV FOC Enotej } 3\text{COR}=\text{MOV. } 1\text{s}=\text{see-THV come} \)
‘Enotej sees me, she came to see me’

The auxiliaries were found co-occurring with aspectual forms at the same phrasal level, as with the projective \( kom \) (5.25). That is, the construction has two verb roots, the auxiliary and the main verb, where the aspect markers appear only once and apply to the whole construction (a single aspect marker modifies the entire construction).

(5.25) \( \text{mapi} \quad \text{at-}\text{a} \quad \text{kom} \quad i=\text{ko} \)
\( \text{arrow get-THV PROJ } 3\text{s}=\text{MOV.} \)
‘He is going to take the arrow’

5.6.2 Directionality

Directional auxiliaries occur to assign movement to the nucleus of the noun or verb phrase. They are used according to the events with reference to the deictic centers: (1) with relation to the speaker, or (2) with relation to the speaker's selected viewpoint. The auxiliary \( t\text{fe} \) is used when the target point is moving to the deictic center; however, if the opposite

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118 River name
holds, the speakers use the auxiliary *ka*. The morpheme *ka* can function as a full verb (5.26) an auxiliary, as seen in (5.27), or as a transitivizer, as explained in the next sections.

(5.26) a. Konibu ɨki=bõ  ka
Konibú river=ALL go
‘Konibú is going up to the river’

b. o=ø-tʃipap tabit=ôt  ka
1s=R-grandmother garden=ALL go
‘My grandmother went to the garden’ (repeated from (4.15))

(5.27) a.  en  i=at-a  ka
2s 3s=get go
‘You (go and) get it’ (repeated from (4.63b))

b. erẽ=bõ  atʃo-a  ka  orẽ=bõ  nom  atʃo=rom
2s.EM=DAT bathe-THV go 1s.EM=DAT no bathe=NEG
‘You (go and) bathe, I don’t bathe’

The directional *tʃe* can occur either as a full verb or as an auxiliary. First, its occurrence as a full verb is exemplified below, followed by examples of the directional as an auxiliary:

**FULL VERB**

(5.28) a.  i=ø-atar tʃe  te
3s=R-hair come 3s
‘She is pulling her hair’
Lit: She is coming with the hair.

b.  [...] ebapa  ê  tʃe  [...]  
moon  DEM come
‘[...] The moon, that moves [...]’
Context: Explaining the lunar movement.

Within the verb phrase, the morpheme *tʃe* can appear before the main verb as in (5.29) or after the verb as in (5.30). In both examples (5.29) and (5.30), the directional morpheme functions as an auxiliary.
(5.29) a. Pupak tfe i=ko-a
   Pupák come 3s=ingest-THV
   ‘Pupák comes to eat it’

   b. pitoa tfe ko-a on
tobacco come ingest-THV 1s
   ‘I am coming to smoke’

(5.30) a. kijtpit at-a tfe
   fish get-THV come
   ‘(He) came to catch fish’

   b. Pupak i-mi tʃop-a tʃe
   Pupak OBJ.NMLZ-kill see-THV come
   ‘(He) is coming to see Pupák’s hunting (hunted thing)’

These directional morphemes, when they fulfill the auxiliary function, behave differently from the positional auxiliary presented in the section above, due to two main factors: (i) the former do not bear personal clitic pronouns; and (ii) they do not indicate aspect.

5.7 Functions of the morpheme ka

A feature that is common to some verbal affixes in this language is their tendency to be polysemous, assuming different semantic meanings and functions. For example, the morpheme ka\(^{119}\) can function as a full verb, as an auxiliary (as seen in section 5.6) or as a transitivizer. I am using the label ‘transitivizer’ here; however, it is important to note that its more exact description is still under investigation. This morpheme seems to function in

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\(^{119}\) All the Tuparían languages have a morpheme cognate to this.
some ways as the valency increasing verbal affixes found in a few other South American languages, such as Nivaclé (Campbell, Díaz and Ángel (in preparation)).

5.7.1 -ka on nouns and adjectives

The morpheme *ka* derives verbs from nouns and adjectives, functioning as a derivational suffix, as seen in the examples (5.31a-h) below:

(5.31) a. *ameko tfaro erek-ka kete*
   jaguar yellow speech-TR there
   'The yellow jaguar meows there'

b. *pero t-et-ka*
   macaw R-name-TR
   'Call the macaw’s name!'

c. *i=i-ka*
   3s=liquid/genipap-TR
   'It boils'

d. *ororo φ-pe te=akop-ka*
   cotton R-skin/bark 3COR=hot-TR
   'Clothes are drying'

e. *k"i jāi-ka*
   axe teeth-TR
   'He is sharpening the axe'

f. *i=am-ka on*
   3s=thread-TR 1s
   'I am threading it'

g. *Aramīra i=kit-ka*
   Aramira 3s=seed-TR
   'Aramira is taking it off'

h. *e=φ-po i-ka k"iri φ-i*
   2s=R-hand liquid/genipap-TR açaí liquid/genipap
   'Your hand is painted, (it's) açaí's liquid'
5.7.2 -ka on verbs

Another occurrence of the morpheme -ka is with verbs. The verbs that occur with the morpheme -ka are those that: (1) can be used with or without the morpheme -ka, where without -ka they take no overt object; (2) require two obligatory arguments, that is, they have an object. Examples of transitives and intransitives verbs are

**TRANSITIVES**

(5.32) a. nako k'iri tfâ-ka
    man açãi knead-TR
    ‘Men are kneading (with a powder) the açãi’

b. apaɾa jômaj-ka
    banana knead-TR
    ‘I am kneading (with the hands) the banana’

c. takirap ø-jen poro-ka
    spider.monkey R-excrement dig-TR
    ‘(I’m) taking out the spider monkey's excrement’
    Context: She was cleaning the inside of the spider monkey.

d. akataba ataba-ka
    tucum¹²⁰ shred-TR
    ‘(I’m) shredding the tucum (palm tree sp.)’

e. baj korô-ka
    palm fiber cut-TR
    ‘He is cutting the palm fiber’¹²¹

f. on i=kera-ka
    1s 3s=split-TR
    ‘I am splitting it (the firewood)’

When the morpheme -ka is attached to intransitive verbs (or to verb ideophones, as in (5.33c)), that is, to elements that only require one obligatory argument, it makes the verb transitive, adding to its semantic value a CAUSATIVE reading, as in the below examples:

¹²⁰ *Astrocaryum vulgare*

¹²¹ *Mauritia flexuosa* (palm sp.)
INTRANSITIVES

(5.33) a.  
\[en \ i=wibi-ka\]
2s 3s=slide-TR
‘You made it slide (from the hammock to the floor)’

b.  
\[kip \ kerē-ka\]
wood get.in-TR
‘The wood stuck (into my leg)’
Lit. It stuck the wood in (me)

c.  
\[te=eti \ βuh-ka\]
3COR=basket IDEO-TR
‘Her basket fell’
Lit. (She) dropped her basket

d.  
\[Aramīra \ kani \ wibi-ka\]
Aramira kani slide-TR
‘Aramira gave birth to Kani’
Lit: Aramira made Kani slide.

e.  
\[pero \ morā-ka\]
macaw jump-TR
‘Macaw is jumping’
Lit: (I) make the macaw jump.
Context: She was swinging the macaw which was on a piece of wood that she was holding. She was playing with the macaw.

5.8 Functions of the morpheme -\(k^w\)a

The morpheme -\(k^w\)a has similar functions when compared to the morpheme -\(ka\): (i) it also derives verbs from nouns; (ii) in addition, it can be also attached to transitive and intransitive verbs. The main difference between -\(k^w\)a and -\(ka\) is related to the semantics of repetition/continuity of the action. The suffix -\(k^w\)a occurs with intransitive verbs, adding to its semantics the idea of continuity/repetition of the action.\(^{122}\) For example, in (5.34) the act of sneezing is continuous.

\(^{122}\) Galucio (2001:107) defines its function as a morpheme that provides the plurality of the action. In Akuntsú, it seems to function like it does in Mekéns and Wayoró (Nogueira 2011:105, 119).
(5.34) a. \(o=atfino-k^w a\)
1s=sneeze-TR.PL
‘I sneezed over and over’

b. \(te=keto-k^w a\)
3COR=laugh-TR.PL
‘He keeps on laughing’

c. \(o=aaw-k^w a\)
1s=yawn-TR.PL
‘I kept on yawning’

d. Aiga niram-k^w a
Aiga defecate-TR.PL
‘Aiga defecated over and over’
Context: She ate something that made her ill.

Similarly, when it occurs with transitive verbs, the morpheme \(-k^w a\) also refers to the continuity/repetition of the action (doing the same event repeatedly), as shown below:

(5.35) a. Enotej iki kiram-k^w a
Enotej water pour-TR.PL
‘Enotej is pouring water’

b. \(o=\emptyset-po t\text{\u0101}oga-k^w a\)
1s=R-hand bite-TR.PL
‘(She’s) biting my hand’

c. \(k^w iri perop-ka tip i=t\text{\u0101}a-k^w a\)
açai cooked-TR soft 3s=knead-TR.PL
‘She cooks the açai, (when it is) soft, she kneads it (with a powder)’

The suffix \(-k^w a\) also occurs with nouns, deriving verbs from nouns (5.36), providing a sense of the action’s continuity. The morpheme may also occur with auxiliaries as seen in (5.36d).

(5.36) a. koro + am-k^w a on
bowl + rope-TR.PL 1s
‘I am putting the rope (folding repeatedly)’

b. apaw i=t-\text{et}-k^w a
grub (sp.) 3s=R-name-TR.PL
‘I call it grub (sp.) (after saying the word for ‘grub’ two times)’
c. **Konibu** *kopkaba-kwa*
   Konibú flute-TR.PL
   ‘Konibú is playing flute (over and over)’
   Lit: He is fluting iteratively.

d. **te=poratfi-kwa**
   3COR=shamanism-TR.PL
   ‘He is doing shamanistic activity (repeatedly)’

e. **kíbapi** *k’iri-kwa*
   bush clean/day-TR.PL
   ‘He is cleaning the bush (the path into the forest) (repeatedly)’

There are some verbs that have *-kwa* as part of their lexical entry. It is not sufficiently clear from a synchronic point of view whether they are lexicalized forms that contain the suffix (because they always appear with this morpheme) or whether they do not have any morphological connection to the morpheme *-kwa*, where *-kwa* may just be part of the phonological segments that make up the verb root. Examples are presented below in boldface:

(5.37) a. *ororo* + *pe*  *ókwa*
   cotton + skin/peel  wash
   ‘(She) is washing the clothes’

b. **Enotej** *ρ-po*  *ókwa*
   Enotej R-hand wash
   ‘(She) washes Enotej’s hand’

c. *o=ρ-po*  *tfikwa*  *on*
   1S=R-hand  kiss  1S
   ‘I kiss my hand’

d. *o=i-ko*  *mokwa*  *on*
   1S=OBJ.NMLZ-ingest  make  1S
   ‘I prepare my food’
5.9 Middle voice

The morpheme e- attaches to the verb and indicates an event in which the semantic agent and the object are coreferential (Givón 2001:95), activating a reflexive reading (e.g. I cut myself). It can also be attached to a verb encoding actions where the subject is semantically affected by the event, activating a middle voice reading, where the referent of the subject is affected by the action and also has some participation in the action, i.e., the "participant has patient-like characteristics as well, in that it sustains the action's principal effects" (Klaiman 1991:3).123

The middle morpheme e- can be attached to both transitive verbs (5.38a), where e- indicates that the semantic agent is the beneficiary of her/his own action; and to intransitive verbs (5.38b), which yields a middle voice reading that, in combination with the transitivizer -ka, also conveys an indirect causation, i.e., the causee and the causer (which are the same person) have some relative control of the event.

(5.38) a.  
\[ \text{en} \quad i=e-kij \quad \text{puru-ru} \]
\[ 2S \quad 3S=MID\text{-take IDEO-RED} \]
‘You yourself take it there, go!’

b.  
\[ \text{on} \quad o=e-wibi-ka \quad \text{puru-ru-ru} \quad \betauh \]
\[ 1S \quad 1S=MID\text{-slide-TR IDEO-RED-RED IDEO} \]
‘I slide, (I) go and fall’  
Lit: I make myself slide, I go and fall.  
Context: She was acting out her fall.

The other use of e- is with the self-act reading attaching to intransitive verbs, indicating that the subject is doing some action to its own benefit; that is, the subject is the one who undertakes the action and at the same time is affected by it, as seen below in

123 Middle voice was also described in earlier literatures as for example Kemmer (1993) and Shibatani (2006). Sanskrit grammarians (such as Panini) also presented the middle voice as a term to express actions that affect their sources or express self-actions.
(5.39).\textsuperscript{124}

\begin{verbatim}
(5.39)  ke  ọ̃-a  o=e-kota  õn
       DEM  give-THV  1s=MID-climb  1s

‘Give this (that) I myself climb’
\end{verbatim}

5.10 The morpheme \textit{te}

The morpheme \textit{te} has several functions; some are closely related to one another. As seen in the section on pro-forms (3.3.5), \textit{te} can be employed as an independent pronoun, syntactically functioning as the subject of transitive sentences. In this section, I discuss \textit{te}, a homophonous morpheme with two different functions: as coreferential and as a reciprocal morpheme.

In order to discern the function of the morpheme \textit{te} in any given circumstance, it is important to investigate: (1) the type of verb (transitive or intransitive); (2) its morphophonological characteristics (i.e. if it is an independent word (particle) or a clitic); and (3) the number of arguments involved. The table below summarizes the main functions of the morpheme \textit{te}:

\begin{verbatim}
\end{verbatim}

\textsuperscript{124} In Akuntsú, there is an expression in which the morpheme \textit{-e} may be grammaticalized to the verb \textit{o=epago} ‘good morning’ (Lit. ‘I woke up’). This expression is used to say that the person has woken up, which is different from the verb ‘to wake up’ \textit{o=pera} ‘I woke up’.
The only coreferential pronoun encountered in the language was the one for third person. The third person coreferential pronoun indicates that the subject is the one who undergoes the event expressed by the verb, as exemplified below:

(5.40)  *Aramíra*  *te*=ø-*po*  *kini-ka*
      Aramíra  3COR=R-hand  cut/rip-TR
      ‘Aramíra cut her own hand’

Note that when the subject is third person, it is frequent in my data that the third coreferential pronoun (3COR) *te* is attached to intransitive verbs. It is worth noting that this occurrence is to cross-reference the subject; however this matter is still under investigation.

(5.41)  

a.  *Konibu*  *te*=et-*a*
      Konibú  3COR=sleep-THV
      ‘Konibu is sleeping’

b.  *kip*  *te*=akat-*a*
      tree  3COR=fall-THV
      ‘The tree fell’
c. \textit{Aiga te=tʃet-a}
\hspace{1cm} \textit{Aiga 3COR=leave-THV}
\hspace{1cm} ‘Aiga leaves’

d. \textit{ei te=aot-a}
\hspace{1cm} \textit{blood 3COR=go.out-THV}
\hspace{1cm} ‘Blood got out’

However, it is important to be aware that the third person coreferential pronoun is not always present, as shown in (5.42a-b).\(^{125}\)

(5.42) a. \(o=\emptyset\)-ike \hspace{1cm} pîta \hspace{1cm} o=\emptyset\)-ike \hspace{1cm} k\textsuperscript{w}at
\hspace{1cm} 1s=R-older.brother \hspace{1cm} walk \hspace{1cm} 1s=R-older.brother \hspace{1cm} leave
\hspace{1cm} ‘My older brother walked, my older brother went away’

b. \(o=\emptyset\)-ti \hspace{1cm} te=ip \hspace{1cm} otʃe=\emptyset\)-ti \hspace{1cm} ip
\hspace{1cm} 1s=R-mother \hspace{1cm} 3COR=come.back \hspace{1cm} 1PL.EXCL=R-mother \hspace{1cm} come.back
\hspace{1cm} ‘My mother is coming back, our mother is coming back’

Additionally, the morpheme \textit{te} can also have a reciprocal reading. The reciprocal \textit{te} reduces the valency of transitive verbs, and only one syntactic argument is expressed in the clause. It involves plural arguments, whereas no explicit syntactic object is found. Compare example (5.43a), with the morpheme \textit{te}, and example (5.43b) without it.

(5.43) a. \textit{peɾo te=ðapa}
\hspace{1cm} \textit{macaw 3COR=beat}
\hspace{1cm} ‘The macaws are fighting’
\hspace{1cm} Lit. They are beating each other.

b. \textit{peɾo ðapa Konibu}
\hspace{1cm} \textit{macaw \hspace{1cm} beat \hspace{1cm} Konibú}
\hspace{1cm} ‘Konibú beat the macaw’

5.11 Aspectual forms

In Akuntsú, manner is indicated by aspectual morphemes, by other morphological processes such as reduplication, or by the pragmatics of the clause. Aspect encodes how an

\(^{125}\) This variation is subject to further investigation.
event is understood according to its internal process. The only marker that clearly encodes
temporal information is the projective aspectual marker, which shows that the event will
occur at a future time. Aside from this, the language does not mark the present or the past
morphologically. In talking about "temporal spaces," I may affirm, then, that Akuntsú has a
basic tense distinction of future versus non-future (which includes past and present).\textsuperscript{126}

Among the other Tuparían languages, Mekéns (Mk) and Wayoró (Ww) have been
analyzed as having a past marker -t. In Mekéns, this past marker is attached directly to
transitive and intransitive verbs, to the transitivizer -ka, or to the thematic vowel a.\textsuperscript{127} In
Wayoró, the morpheme -t was analyzed as a past marker, appearing in progressive clauses
(Nogueira 2011:83).\textsuperscript{128}

In the other remaining Tuparían languages, Braga described two particles that mark
tense in Makuráp, namely xe:t ‘past’ and eya ‘future.’ In Tuparí, tense is not
morphologically encoded on the verb. In Tuparí, auxiliaries are described as morphemes
responsible for coding tense and aspect (Alves 2004).

On the other hand, Makuráp is the only one of these languages with perfective and
imperfective aspectual markers—i.e., what are called ‘thematic vowels’ or ‘thematic

\textsuperscript{126} Dietrich (2010b) describes deeply this idea for Guaraní language.

\textsuperscript{127} However, the past marker is not always found in past tense clauses (Galucio 2001:91).

\textsuperscript{128} Examples:

\begin{itemize}
  \item[a.] ndeke \textit{te-agop-k-a-t} \hfill (Nogueira 2011:83)
      \begin{tabular}{ll}
        3s & 3-warm\textsubscript{past}\-vblz\-v.t\-past
      \end{tabular}
      \begin{tabular}{l}
        ‘She warmed herself’ (‘Ela se esquentou’) \hline
      \end{tabular}
  \item[b.] igi \textit{te-\text{\textipa{gal}}-a-t} \hfill (Nogueira 2011:83)
      \begin{tabular}{ll}
        \text{\textipa{gal}} & 3-intr-drop\-vblz\-v.t\-past
      \end{tabular}
      \begin{tabular}{l}
        ‘The water is dropping’ (Água está pingando’) \hline
      \end{tabular}
\end{itemize}
suffixes’ in other languages are described as the perfective aspectual marker -ø and imperfective aspectual marker -a in Makuráp (Braga 2005).\(^{129}\)

Tupían languages in general tend to express tense and aspect through particles and/or auxiliaries (Rodrigues and Cabral 2012).

In this section, the main aspectual morphemes found in Akuntsú are presented, which include: -ra ‘habitual,’ ek\( ^w \)a ‘iterative,’ and kom ‘projective,’ followed by a discussion of verbal reduplication.

5.11.1 Habitual -ra

In this language, habitual aspect is expressed by the morpheme -ra. It designates an event that regularly takes place, instantiated from time to time. The habitual aspect may indicate an event that used to occur in the past (5.44), occurs in the present (5.45) or in the future (5.46). The examples below show that through the use of the habitual morpheme -ra, the speaker makes reference to the habit of doing some event. For instance, in (5.45a), the habit of sleeping in the afternoon is common to the speaker and the other person that he refers to; that is, the situation of sleeping occurs frequently. Example (5.45b) indicates the habitual process of coming back by a person who is used to going away and coming back regularly. Turning to the examples in (5.46a-b), the speaker comments on the fact that it is customary to sniff snuff and to eat bananas; he is going to do it as usual. Finally, the last example (5.46c) indicates the habit of going to the forest.

\(^{129}\) Examples:

a. wawo ngoy-ø  
   potato dig up-perf  
   ‘The potato is dug up’ (‘La patate est arrachée’)

b. yemõ wawo ngoy-a  
   let's go potato dig up-imper  
   ‘Let’s go dig up some potatoes’ (‘Allons arracher des patates’)

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(5.44) $i=no \quad i=ko-ra \quad en$
    3s=other 3s=ingest-HAB 2s
    ‘the other one, you ate it (as usual)’ (repeated from (4.83a)).

(5.45) a. $o=et-a-ra \quad te=et-a$
    1s=sleep-THV-HAB 3COR=sleep-THV
    ‘I am used to sleep and he’s used to sleep [...]’

   b. $te=ip-a-ra$
    3COR=come.back-THV-HAB
    ‘He comes back’

(5.46) a. $\ddot{o}jpe \quad ko-a-ra$
    snuff  ingest-THV-HAB
    ‘(I am going to) sniff snuff as usual’

    b. $apar a \quad ko-a-ra \quad kom$
    banana  ingest-THV-HAB PROJ
    ‘(I) will eat bananas as usual’

    c. $e=t\ddot{f}e-t-a-ra \quad kom$
    2s=leave-THV-HAB PROJ
    ‘You will leave (to the forest)’

The habitual morpheme can also occur with negative clauses, as exemplified below:

(5.47) $ke \quad nom \quad mi-ra$
    DEM no  kill-HAB
    ‘That one is not used to hunting’

5.11.2 Iterative $ek^w a$

The iterative morpheme $ek^w a$ expresses the idea that the event occurred several
    times, that an event happened repeatedly, expressing plurality. Iteration is also expressed
through reduplication, which is the only morphological process that conveys this meaning.
Reduplication is described in section 5.11.4.

The iterative morpheme may have two semantic readings: (i) the event occurred
    many times or (ii) it reflects the idea of the plurality of objects affected. This morpheme has
the label ITER for both functions in this dissertation.
Example (5.48a) comes from a natural conversation where the speaker is talking about a person who leaves the rainforest repeatedly. In this scenario, the action of leaving happens several times in the frame time. In (5.48b-c) the act of running and sleeping is regular and it is happening once again. In the examples below, the subjects are singular and the iterative morpheme linked to the verb indicates that the action happens repeatedly, where the action is realized by the same subject over and over, as follows:

(5.48) a. \( te=t\)\( \textit{f}e t \)\( ek^w a \)
\( 3\text{COR}=\text{leave} \) \( \text{ITER} \)
‘He leaves repeatedly’

b. \( te=\textit{era} \)\( ek^w a \)
\( 3\text{COR}=\text{sleep} \) \( \text{ITER} \)
‘He sleeps continuously’

c. \( (en) \)\( e=n\textit{eme} \)\( ek^w a \)
\( (2s) \)\( 2s=\text{run} \) \( \text{ITER} \)
‘You are going to run many times’

In the scenario below, the particle is attached to transitive verbs, and when it occurs, the iterative morpheme involves multiple objects, reflecting the plurality of the objects involved in the action. In (5.49a) the speaker is explaining to the addressee that the next time that he leaves the Indigenous area he needs to bring many ‘fishing lines.’ Example (5.49b) also gives the idea of multiple things to bring, while (5.49c-d) gives the idea of multiple animals to hunt/to kill.

It is worth noting that the particle \( ek^w a \) gives the plurality of the object, when attached to transitive verbs, while the morpheme \(-k^w a \) yields the repetition/continuity/plurality of the action only (see section (5.7) from above). Examples of the iterative particle are shown below:\(^{130}\)

\(^{130}\) It may be hypothesized that the suffix \(-k^w a \) was derived from the particle \( ek^w a \). However, diachronic investigation needs to be undertaken to test this.
Unlike the habitual aspect, the iterative shows an event that happens repeatedly many times over a certain period of time, which does not imply that it is habitual. There are examples where the iterative morpheme appears in phrases that also contain the habitual morpheme, as follows:

(5.50)  
\[ te=ip-a-ra \quad e^k_wa \]  
\[ 3\text{COR}=\text{come.back-THV-HAB} \quad \text{ITER} \]  
‘He is used to coming back repeatedly’

### 5.11.3 Projective kom

The morpheme kom was previously described in Aragon (2008) as a projective morpheme. It indicates that (i) an event is going to occur right after a reference point (5.51); or (ii) it may also occur in a non-immediate future in which the speaker is not certain about the precise time at which it is going to happen, but it usually refers to an event that speakers do indeed expect to occur in the future (5.52).

(5.51) a.  
\[ e=\phi-\text{abatfo} \quad kipe \quad jäj-ka \quad kom \]  
\[ 2\text{s}=\text{R-grandfather machete teeth-TR PROJ} \]  
‘Your grandfather will sharpen the machete’
b. \( \text{ořē=bō} \ o=b\text{fet-a} \ kom \)
\(1s.\text{EM}=\text{DAT} \ 1s=\text{leave-THV} \ PROJ \)
‘I will leave’

(5.52) a. \( \text{o=amōja-ra} \ kom \)
\(1s=\text{dance-HAB} \ PROJ \)
‘I am going to dance’

b. \( \text{tawfē} \ \text{mi} \ o=\text{amōja} \ kom \)
\(\text{peccary kill} \ 1s=\text{dance} \ PROJ \)
‘If he kills the peccary, I will dance’

The two examples below show that ‘the rain’ will happen but they are not sure when exactly it will take place; they do, however, believe that the event is going to happen, due to some changing in the weather.

(5.53) \( \text{tekarap ita kom} \)
\(\text{rain} \ \text{arrive} \ PROJ \)
‘The rain will arrive soon’
Context: It is not raining yet.

Similarly, this is seen in the two examples below. The two situations may occur in the future but the precise time is not known. In (5.54a) he will catch something, but it will depend on certain things, so the speaker is not sure when it will happen. In (5.54b), Purá may fall from the chair, because the chair is shaking, but it is only a presumption of a probability.

(5.54) a. \( \text{kojōpe=bō} \ i=at \ kom \)
\(\text{night=ALL} \ 3s=\text{get} \ PROJ \)
‘At night he will pick it up’

b. \( \text{Pura} \ \text{te}=\text{akat-a} \ kom \ \text{Pura} \ βuh \)
\(\text{Purá} \ 3\text{COR}=\text{fall-THV} \ PROJ \ \text{Purá} \ IDEO \)
‘Purá will fall, Purá will fall’

Note that the projective morpheme occurs after the independent pronoun when the latter is placed at the end of the verb phrase, as illustrated below:
The projective morpheme kom also has scope over the nominal phrase, as seen in the NP in bold:

(5.56) pebo at-a kom Pura kom pebo kom
feather get-THV PROJ Purá PROJ feather PROJ
‘He will get the feather, it will be Purá, it will be the feather’

5.11.4 Verbal reduplication

Reduplication in this language occurs with several different word classes, including verbs, nouns, and ideophones. In verbs and verb ideophones, it indicates aspect. There are two types of reduplication found in the language: (i) monosyllabic (5.57) and (ii) disyllabic reduplication (5.58).

In example (5.57a) the last syllable of the verb āpi ‘to pull’ is repeated to indicate the fact that the speaker is pulling the head recurrently. The idea expressed is that the person, by holding the hair, pulls the head in a continuous process without stopping. In (5.57b) the reduplication of mara ‘to fold’ indicates that the folding of the rope is continuous and iterative; the rope was folded many times.

(5.57) a. o=ø-anam āpi-pi-ka
1S=R-head pull-RED-TR
‘I am pulling and pulling my head’
b. *koro + am mara ma-ma-mara*
   bowl + rope fold RED-RED-fold
   ‘He keeps folding the rope of the bowl’

In (5.58a) the idea expressed by the reduplication is that something is being rolled repeatedly, and in (5.58b) the reduplication of the verb *baja* ‘to clean’ indicates cleaning happening over and over until there is no more meat on the *jirau*. In (5.58c) the hair has been curling until the hair has become entirely curly.

(5.58) a. *en i=kapa-kapa*
   2s 3s=roll-RED
   ‘You roll it repeatedly’

b. *kwetʃope baja-baja jirau clean-RED*
   ‘Clean the *jirau* entirely!’

c. *e=ø-atap wiri-wiri*
   2s=R-hair curl-RED
   ‘(You) curl your hair over and over’

5.12 Thematic vowel

As for *a*, with its counterpart ø, it has been called a ‘thematic vowel’ or ‘thematic suffix’ in the Tuparían literature, with the exception of Makuráp, where these are described as a perfective and imperfective aspectual marker respectively.

In Akuntsú, the thematic vowel occurs in contexts of different clauses, and these clauses can have different aspectual meanings, as following:

(5.59) *apara ko-a apara ko apara ko wen*
   banana ingest-THV banana ingest banana ingest finish
   ‘(She) is eating bananas over and over, (they are) gone’
   Context: Narrating the process of eating bananas.

(5.60) a. *e=ø-mepit tʃop en*
   2s=R-son/daughter.of.woman see 2s
   ‘You see your daughter’

---

131 Brazilian Portuguese word to refer to a platform made of sticks to dry/roast game meat, Brazil nuts, etc.
Context: When the person arrived, the speaker told her to see her daughter who came to talk to her.

b.  iki  te=kʷat-a  i=fop-a
   water  3COR=leave-NMLZ  3s=see-THV
   ‘The water is going away, see it’

(5.61)  a.  te=kʷat-a
   3COR=leave-THV
   ‘He left’
Context: The person left the place by car, but it was still possible to hear the sound of the car.

b.  te=kʷat
   3COR=leave
   ‘He left’
Context: Talking about a person who left the place long time ago.

c.  te=niram  te=kʷat
   3COR=stand.up  3COR=leave
   ‘She stands up, she leaves’
Context: Talking about the movement that the person is doing.

(5.62)  a.  erepe  tfiramāti  te=ip
   tomorrow  Txiramanty  3COR=come.back
   ‘Txiramanty will come back tomorrow’

b.  Konibu  te=ip
   Konibú  3COR=come.back
   ‘Konibú came back’

c.  te=ip-a-ra  ekʷa
   3COR=come.back-THV-HAB  ITER
   ‘He is used to coming back repeatedly’ (repeated from (5.67)).

In Akuntsú, -a is described as a thematic vowel; I do not consider this -a a morpheme, as for example in (5.62c), and definitely do not consider (5.62b) to have a morpheme -Ø as counterpart to the a thematic vowel in other forms, hence no reason is found to consider a zero morpheme as a thematic vowel. One would argue that verbs such as pok’a ‘to burn’ might consist of the root pok- with a thematic vowel attached to it, as in pok-a. One counter-argument to this claim is that in negative constructions, the verb does not allow thematic vowels; however, when verbal roots like pok’a ‘to burn’ occur in negative
constructions, as in \textit{nõm i=poka} ‘he doesn't burn it,’ the final \textit{a} is still there, which means that the final \textit{a} is not a thematic vowel, but rather is a part of the verbal root. The examples (5.63) below show situations where the negative morpheme \textit{nõm} is employed and the speakers do not make use of the thematic vowel.

(5.63) a. \textit{erape} \ [\textit{nom} \ \textit{e=k^{w}at}] \textit{te=k^{w}at-a} tomorrow \ no \ 2s=leave \ 3COR=leave-THV
‘Tomorrow you don’t leave, he leaves’

b. \textit{en} \ \textit{i=ø-kit} \textit{ko-a} \ \textit{orê=bô} \textit{nõm} \textit{iwe} [\textit{nom} \ \textit{i=ø-kit} \textit{ko}]
2s 3s=R-seed ingest-THV 1S.EM=DAT no INTERJ no 3s=R-seed ingest
‘You eat the seed, I don’t, it hurts, I don’t eat it.’

c. \textit{aw-aw} \ [\textit{nom} \textit{aot}] [...] baby \ no \ go.out
‘Baby didn’t go out [...]’

d. \textit{te=tʃet-a} [...] \ [\textit{nom} \textit{tʃet}] [...] 3COR=leave-THV \ no \ leave
‘He leaves... he doesn’t leave [...]’

Note that the thematic vowel is only attached to verbs. Nouns do not bear the thematic vowel.

(5.64) \textit{e=i-at} \textit{at-a} \textit{en}
2s=OBJ.NMLZ-get get-THV 2s
‘You catch your caught (thing)’

In imperative sentences the thematic vowel is not common, though it is possible to find it in some examples (which are fewer than those that do not have thematic vowels). See example (5.65a) without the thematic vowel and example (5.65b) with an occurrence of the thematic vowel.

(5.65) a. \textit{tiero} \textit{ko}
chicha ingest
‘Let's drink chicha’

b. \textit{ko-a} \ \textit{i=ø-pi}
ingest-THV 3s=R-foot
‘Eat its feet’
It may be worth investigating whether or not the thematic vowel is now a frozen morpheme, that is, that formerly it may have been a clear grammatical morpheme whose function is no longer visible or predictable from phonological context or from any other function that it may have had. However, this issue needs further investigation in the future in order to clarify this matter.

5.13 Mood and Modality

Modality involves "how we come to know and speak about the world..." (Timberlake 2007:315). Modality is the speaker’s attitude toward the realities expressed by the speaker, or by some other participant, within the proposition. The typology of modal systems often distinguishes two general types of modalities: ‘realis’ and ‘irrealis’ modality. The difference between ‘realis’ and ‘irrealis’ follows the description found in Mithun (1999:173 apud Palmer 2001:1): "The realis portrays situations as actualized, as having occurred or actually occurring, knowable through direct perception. The irrealis portrays situations as purely within the realm of thought, knowable only through imagination."

In Akuntsú, three kinds of moods are discussed in this section: indicative, interrogative, and imperative. The indicative is unmarked, fitting into the realis modal system, while the other moods tend to fit into irrealis modality. Imperative and interrogative are often morphologically marked in the language. The notion of splitting moods, the indicative into realis and the other moods into irrealis, is not new. Payne (1997:245), for example, has discussed the fact that interrogative and imperative are "likely to be irrealis," including negative clauses as well. Palmer (2001:4) also noted that even though there are two categories of modality in terms of modal system and mood, he affirms that "typically
with mood, all or most clauses are either realis or irrealis: the system is basically
('prototypically') binary."

Next, the types of mood in this language are briefly presented. Modality is described
in chapter 7 of this dissertation, where particles are discussed.

5.13.1 Mood

This subsection provides an overview of indicative, imperative and interrogative
moods. These three moods have in common the semantics of the uncertainty of an event,
which can be described as happening in the past, present or future.

5.13.1.1 Indicative

The indicative is not overtly marked morphologically in this language. The
indicative indicates if a proposition is factual, truth (realis [declarative] assertion) or non-
truth (negative assertion). Notice, however, that the non-truth assertion is not semantically
realis, since negative clauses refer to actions that have not taken place or that will not take
place; as such, it indicates the irrealis status of the proposition, as seen below:

**FACTUAL TRUTH**

(5.66) \textit{otfe} \quad i=at-a
\begin{tabular}{l}
1PL.EXCL \quad 3s=get-THV \quad ‘We take it’
\end{tabular}

**IRREALIS**

(5.67) \textit{nom} \quad i=at=om
\begin{tabular}{l}
no \quad 3s=get=NEG \quad ‘[…] (you) don't get it’
\end{tabular}
5.13.1.2 Imperative

The imperative mood indicates that the speaker wants the addressee to do or not to do some event. It can indicate orders, commands, requests, suggestions or advice. The imperative is often marked by the suffix -tʃo (5.68). Imperative clauses refer to actions that have yet to take place (irrealis).

(5.68) a. i=daɾa-tʃo
    3s=unfold-IMP
    ‘Unfold it!’

b. tfajã aot-a-tʃo
    earring go.out-THV-IMP
    ‘Get out the earring!’

c. ege-tʃo
    stand.up-IMP
    ‘Stand up!’

d. te=wibi-ka-tʃo
    3COR=slide-TR-IMP
    ‘They are going to slide’

Context: When things are coming out of baskets, bags, etc.

However, it is possible to have imperative clauses without the presence of the suffix -tʃo, some examples of which are presented below:

(5.69) a. i=ko
    3s=ingest
    ‘Eat it!’

b. takirap mi
    spider.monkey kill
    ‘Hunt spider monkey!’

c. erẽ=bõ aj
    2S.EM=DAT stay
    ‘You stay!’

d. jẽ at
    DEM get
    ‘Catch this!’
There are also lexical words used to indicate hortative meanings, as in (5.70a) and (5.70b):\textsuperscript{132}

(5.70) a. \textit{tfobara}
     ‘Let’s go!’

b. \textit{toptfika}
     ‘Look!’

5.13.1.3 Interrogative

A speaker uses interrogatives to get information about something that is not known.

As described in detail in chapter 8, there are two types of interrogative clauses: yes-no questions (polar questions) and content questions (information questions). Interrogative clauses also involve an inherent uncertainty. Examples below show an illustration of a yes-no question (5.71) and a content question (5.72).

YES-NO QUESTION

(5.71)  \[ e=t\text{-}et-a \text{ } ek''a? \]
     \[ 2s=leave-THV \text{ } ITER \]
     ‘Are you going to leave once again?’

CONTENT QUESTION

(5.72)  \[ i=t-et \text{ } ete? \]
     \[ 3s=R-name \text{ } REL \]
     ‘What is his name?’

5.14 Summary

This chapter described several topics related to the verbal morphology, including a brief discussion on types of moods and the alignment system in this language. The alignment system is by default ergative-absolutive; however, this pattern may be optionally

\textsuperscript{132} So far, there is no evidence to segment them into separate morphemes.
neutralized in transitive clauses, if (and only if) the object is inanimate. A summary of types of verbs and their respective morphemes is presented in table 5.2 below. The verbs that allow combination with the morphemes on the left of the table are marked with an X, as shown:

<table>
<thead>
<tr>
<th>VERB MORPHEMES</th>
<th>TYPES OF VERBS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TRANSITIVE</td>
</tr>
<tr>
<td>Causative (m)õ-</td>
<td>X</td>
</tr>
<tr>
<td>Object Nominalizer i-</td>
<td>X</td>
</tr>
<tr>
<td>Transitivizer -ka</td>
<td>X</td>
</tr>
<tr>
<td>Transitivizer -k&quot;a</td>
<td>X</td>
</tr>
<tr>
<td>Middle e-</td>
<td>X</td>
</tr>
<tr>
<td>Aspectual forms</td>
<td>X</td>
</tr>
</tbody>
</table>

Table 5.3 - Verbal morphology.
6.1 Introduction

In this chapter, adjectives and adverbs are described; it is argued that they are small open classes of their own. In section 6.2, an overview of adjectives in this language is presented, showing their differences and similarities with the classes of nouns and verbs. In section 6.3, adverbs are presented with a discussion of their primary characteristics.

6.2 Adjectives

Adjectives have been the subject of many analyses and theories cross-linguistically, with debate, for instance, about whether or not they are a universal word class. Some previous works suggested that adjectives are not a class found in all languages (e.g. Dixon 1982, Croft 2001) and others argue the opposite: adjectives are indeed a universal word class (e.g. later, Dixon 2004).

Adjectives share many characteristics both with nouns and with verbs. Some of these similarities lead some scholars to classify adjectives as specifically belonging either to the class of nouns, or of verbs, or as an independent class of their own, i.e., belonging to the adjective word class. The fact is that the category of adjectives, according to Givón (2001), varies across a scale of temporal stability from less-prototypical adjectives (such as
temporary states: temperature, feelings, etc.) to more prototypical ones (such as the adjectives that denote durable physical properties). This scale means that the less-prototypical adjectives tend to share more characteristics with verbs, and those considered more-prototypical tend to share similarities with nouns (Givón 2001:54).

Dixon (2004) discusses intensively some criteria for recognizing the class of adjectives in terms of its grammatical properties. He affirms, based on typological study involving different languages, that although the adjectives may share properties with nouns and verbs in some languages, and in other languages only with verbs or only with nouns, and in some with neither, there will be always some kind of grammatical criteria to classify adjectives as an independent word class, and, hence, "a distinct class for adjectives can be recognized for every human language" (Dixon 2004:1).

The issue of whether or not adjectives are an independent word class has been a subject of debate in the description of the Tupían languages as well, which is the reason adjectives deserve special attention here. The evidence found supports the argument that Akuntsú has a set of lexemes that seem to be more adjective-like, supporting an independent lexical class with true adjectives as its members. Examples and an overview of how adjectives function in Akuntsú are discussed in this section. Firstly, some examples of adjectives in phrases are provided, and the difference and similarities found between adjectives and the other open word classes will be provided in further subsections.

Traditionally, adjectives include a class of words that describe attributes or qualities and typically modify a noun. The adjectives in this language co-occur with a noun (6.1a-b), a pronoun (6.2a-b) or a demonstrative (6.3a-b).
(6.1) a. otfe pitoa tit
   2PL.EXCL tobacco unripe
   ‘We have unripe tobacco’

   b. abobo niŋ
caterpillar striped
   ‘Striped caterpillar (sp.)’

(6.2) a. apara kop
banana red
   ‘Ripe banana’

   b. atiti petfe
corn good
   ‘Good corn’

(6.3) kipkap iw
annatto ugly/rotten/bad
   ‘Rotten annatto’

Adjectives may function as predicate complements (6.4) or they may function as the
head of a phrase by themselves (6.5). Examples (6.5a) and (6.5b) indicate a situation where
the speaker, by answering a question, uses the adjective ‘delicious’ and ‘red’ independently
in the phrase.

(6.4) ek pi kʰiri
house interior empty/clean
   ‘The interior of the house is empty’

(6.5) a. tfobe te
delicious FOC
   ‘(It's) delicious’

   b. kop te
red FOC
   ‘(It's) red’

Another situation where adjectives function as the head of a phrase by themselves is
when a speaker uses the adjective as an exclamation. Note that in both situations, by
answering a question (as shown above) and in an exclamation clause (as exemplified below
in (6.6), the adjectives are necessarily accompanied by the focus particle te.

(6.6) ẽh  ten  te
      INTER heavy  FOC
  ‘Hey, (it’s) heavy!’
Context: Trying to lift some heavy thing.

An adjective can also occur as the head of a phrase by itself when followed by the essive clitic =na, as illustrated by the below example:

(6.7) kipitʃik =na
cold=ESS
  ‘It is cold’
Lit: It (the weather) became cold.

Syntactically, adjectives can function: (i) as predicates (6.8), where there is no overt copula between the head noun and the adjective; or (ii) as modifiers of nouns (post-nominal, attributive adjectives), as in (6.9):

(6.8) iat  pitoa  petʃe
     2PL tobacco  good
  ‘Your tobacco is good’
(6.9) o=t-ek  pagop
     1s=R-house  new
  ‘My new house’

Adjectives can be negated with the negative clitic =(e)rom. Adjectives (6.10) are negated as the same way as verbs (6.11) and nouns (6.12), as illustrated in the following set of examples:

(6.10) Konibu  i=tʃame=rom
        Konibú  3s=beautiful/good=NEG
  ‘Konibú is not well’

---

133The phrases ‘my house is new’ and ‘my new house’ are morphologically similar. Predicate complements have no overt copular element. More on this subject in chapter 8.
(6.11)  \( o=tfet=rom \)
\( 1s=\text{leave}=\text{NEG} \)
‘I don’t leave’

(6.12)  \( ek=erom \)
\( \text{house}=\text{NEG} \)
‘There is no house’

Akuntsú employs vowel lengthening in adjectives to represent the degree of intensity
of meaning ‘very’, as in the following example:

(6.13)  a.  \( k^{w}ako \quad \phi-ok^{w}aj \quad peeerek=na \)
\( \text{guan (sp.)} \quad \text{r-tail} \quad \text{wide/long}=\text{ESS} \)
‘The guan’s tail is very long’

b.  \( o=\phi-jâj \quad atiiii \quad nom \quad o=i-ko \quad ko=rom \)
\( \text{1s=R-tooth} \quad \text{pain} \quad \text{no} \quad 1s=\text{OBJ.NMLZ-ingest} \quad \text{ingest}=\text{NEG} \)
‘I don’t eat my food, my teeth hurts very much’

With respect to the order of the adjectives in the clause, the adjectives follow the
head of the noun phrase when they function syntactically as noun modifiers. See template of
adjectives order, as follows:

\[
[(\text{noun}) \ (\text{pron}) \ (\text{dem}) \ \text{adj}]^{134}_{\text{NP}}
\]

Figure 6.1 - Template of adjective order within the NP.

6.2.1 Adjectives and nouns

Adjectives and nouns are similar in many aspects. The relevant aspects are cited in
this section. The first common aspect worth mentioning is that both can be arguments
(complements) of a predicate; compare the adjective in (6.14a) and the noun in (6.14b), both
in boldface:

\[134\text{ Note that only one of the elements in parentheses can occur.}\]
Both nouns and adjectives can occur with oblique clitics (see section 4.3.1), as shown in the examples below, which illustrate a noun (6.15a) and an adjective (6.15b) with the essive clitic =na:

(6.15) a. \(e=\phi\)-kora-kora=na\)
\(2s=R\)-chicken=ESS\)
‘It became your chicken’

b. \(i=k'\)erep=na\)
\(3s=\text{black/dark}=\text{ESS}\)\)
‘It turned into black’

From the data available, only nouns receive the suffix -a that carries the meaning of comparativeness ‘like/as.’ This similar (probably cognate) suffix also occurs in Tuparí, described by Rodrigues and Caspar (1957) as a suffix that gives a special characteristic to the noun, literally meaning ‘the one that is...’ or ‘the one that has...’ Compare, in Akuntsú, examples below:

(6.16) a. \(k'\)ój-k'ój\)
‘Catfish’

b. \(k'\)ój-a-k'ój-a \(te\)
\(\text{catfish-N-catfish-N} \ 3s\)\)
‘He is like a catfish’

(6.17) a. \(k'\)ipek\)
‘Papaya’
b. kipek-a perek kipek-a ika
   papaya-N wide/long papaya-N short
   ‘It is long papaya and it is short papaya’

Unlike common nouns, adjectives (in bold) are not marked by the determinative morpheme -(e)t, as following:

(6.18) a. ameko-t k"erep
   jaguar-DET black/dark
   ‘the black jaguar’ (repeated from (4.8))

b. otse t-ek-et iw
   1PL.EXCL. R-house-DET ugly/rotten/bad
   ‘Our damaged house’

6.2.2 Adjectives and verbs

It is difficult in Akuntsú to apply the criterion that says that verbs are the only word class that can be combined with categories that denote person, mainly because absolutive and genitive are coded by personal markers; thus, the verb, the noun and the adjective can bear personal markers. However, one of the main criteria that separate verbs from adjectives and nouns is the fact that neither nouns nor adjectives can take the thematic vowel -a, which is restricted to verb classes:

(6.19) k"ako te=akat-a te
   guan (sp.) 3COR=fall-THV FOC
   ‘Guan (sp.) fell’

Another difference between verbs and adjectives is that only adjectives (6.20a) can function as arguments without adding any derivational morphology. The verbs in (6.20b) must be verbalized in order to function as an argument:

(6.20) a. kipi te=ita
   elder 3COR=arrive
   ‘The elder (man) has arrived’

243
b. poget-ap baja en
    roast-VBLZ clean 2s
    ‘You clean the roasted’

In addition, adjectives, not verbs, function as modifiers of nouns. See the example below that shows an adjective (in boldface) as the modifier within a noun phrase (NP):

(6.21) a. tfamoew [o=t-ek pagop]NP tfok
    Samuel 1S=R-house new build
    ‘Samuel built my new house’

b. on [eti perek]NP mōk”a
    1S basket wide/long make
    ‘I’ll make a wide basket’

6.3 Adverbs

As described in section 3.3.4, the adverbs, like the adjectives, form a small class, diverging from the other prototypical open classes: noun and verb classes. Syntactically, adverbs function to modify the verb (the predicate) or the entire clause. As noted before, morphologically, adverbs do not differ from adjectives, especially those called manner adverbs. However, they are included in a separate class because of their distinct syntactic properties, since only nouns and adjectives can function as arguments of verbs.

Semantically, the adverbs are mainly divided into TEMPORAL, MANNER, and LOCATIONAL adverbs.

Adverbs occur in different position within the clause. They are commonly encountered at the beginning or at the end of the clause, without interfering in the internal structure of the clause. They differ from nouns in that they cannot be the argument of a clause, mainly because they cannot form a syntactic unit with nouns. Finally, they differ
from particles due to two main factors: (i) being able to form a phrase by themselves while particles cannot; and (ii) appearing in different positions within the clause, while particles tend to have a fixed position.\footnote{More on particles in chapter 7.}

The main reason to classify these words as adverbs is that they are encountered in different positions within the clause. Not all examples shown below illustrate all the possible alternatives for adverbial position; however, we need to be aware that the position of all three types of adverbs varies — that is, it is possible to place them at the beginning or at the end of the clause. Below, the three types of adverbs are discussed:

**TEMPORAL ADVERBS**

Temporal adverbs locate the predicate in a time frame. They can indicate a specific time or some event that occurred over time. They are commonly found at the beginning of the clause, though it is also possible for them to occur in clause-final position. The most frequent temporal adverbs are given in (6.22) and their behavior in the clause is shown in (6.23-6.26).

(6.22)  
\[
\begin{align*}
\text{ēɾape} & \quad \text{‘tomorrow’} \\
\text{kirê} & \quad \text{‘today/now’} \\
\text{kojõpe} & \quad \text{‘(at) night’} \\
\text{kepi} & \quad \text{‘evening’} \\
\text{k"iri} & \quad \text{‘(during the) day’} \\
\text{k"irimā} & \quad \text{‘early/morning’} \\
\text{ēɾape no} & \quad \text{‘day after tomorrow’}
\end{align*}
\]

(6.23) \[
\text{kōjõpe=bo  ōjpe-ka  on} \\
\text{night=ALL  snuff-TR  1s} \\
\text{‘I am going to sniff snuff at night’}
\]
The temporal adverb *erape* ‘tomorrow’ can also occur with the indefinite pronoun *no* ‘other,’ which gives the idea of ‘the day after tomorrow,’ as exemplified below:

(6.27) a. *erape no tapdut pega*
tomorrow other manioc bring
‘Bring the manioc the day after tomorrow’

b. *kibapi poka erape no*
bush burn tomorrow other
‘He will burn the bush the day after tomorrow’

**LOCATIVE ADVERBS**

The adverbs in this category express a locative meaning. Some examples of the most common adverbs found in the language are presented in (6.28). In (6.29), (6.30) and (6.31) the adverbs in bold, like other adverbs found in the language, cannot cannot be used in place of the noun and have scope over the clause.

(6.28)    *jô*  ‘here’
          *wâ*  ‘close’
          *ketê* 137  ‘there’

136 This word is used to talk about things that are made or prepared by someone. It is possible to refer to a basket, to cooked corn and so on by using the word *poemokâ*.
137 It may be possible that this can be also considered a complex form of demonstrative plus another morpheme, if one could separate the form as *ke + te.*
(6.29) a.  beriberi  jō
     mat    here
     ‘The mat is here’

   b.  jō  e=ø-erek  k⁵ak
     here  2s=R-speech sound
     ‘Your recorder is here’

(6.30) a.  ameko  aporo-ka  wā
     jaguar  growl-TR  close
     ‘The jaguar growls close by’

   b.  wā  ke=bō  nom
     close  DEM=DAT  no
     ‘That one is not close by’

(6.31) a.  ameko  tfaro erek-ka  kete
     jaguar  yellow  speech-TR  there
     ‘The yellow jaguar is howling there’

   b.  kete  en  i=ma
     there  2s  3s=place/put/spill
     ‘You put it there’
     Context: She was giving the parrot to be placed inside the house.

Note, however, that jō ‘here’ and kete ‘there’ are also related to deictics. In
addition, there are also locative notions expressed by nouns attached to locative clitics or
linked to postpositional phrases to form adverbial phrases, as discussed in sections 4.3.1 and
4.8.2. Some examples are presented below:

(6.32) a.  kopiba  i=t-ek  pi=bō
     parrot (sp.)  3s=R-house  interior=ALL
     ‘Parrot got into his house’ (repeated from (4.17d))

   b.  orê=bō  nom  ek  etse
     1S.EM=DAT  no  house  DIFF
     ‘I am not in the house’

---

138 Sometimes discussed in the literature as adverbial demonstratives.
Another way that the language represents the idea of location is by using adjectival words to express adverbial notions. Besides the semantics (which shift), syntactic properties are what lead us to identify lexemes as adjectives or as adverbs, hence no morphology is used to mark them as adjectives or as adverbs.

The examples below illustrate the adjective *perek* ‘wide/long’ being used to express distance (6.33a) versus as an adjectival word (6.33b).

(6.33) a. *aparapia erek-kʷa perek*
    
    `
    
    non.Indian speech-TR.PL
    
    ‘The non-Indian speaks far away’
    
    b. *kip perek*
    
    leg/stick/wood wide
    
    ‘Long leg’

**MANNER ADVERBS**

The adverbs in this category represent the way that an event occurs. They may give the idea of fast/rapidly, strongly, quickly, etc. In this category, it is more common to see reduplication in the verbal root expressing the same semantic notions as manner adverbs, rather than the use of adverbial words themselves. The words described as manner adverbs are those that behave as both adjectives and adverbs. As adverbs, the words consistently occur before or after the verb phrase. Examples (6.34a-b) show the possible positions of the manner adverb in a clause.

(6.34) a. *te=kʷakʷa ten orē=bō nom*
    
    3COR=cry strong 1S.EM=DAT no
    
    ‘(She) cries strongly, I don’t’
    
    b. *ten te=kʷakʷa orē=bō nom*
    
    strong 3COR=cry 1S.EM=DAT no
    
    ‘(She) cries strongly, I don’t’
Note that the adverb ten comes after the verbal predicate (as in (6.34a)) and it can be placed at the beginning of the verb phrase (as in (6.34b)) or at the end (as in (6.34a) and (6.35a)); however, it cannot be inside the elements of the predicate—that is, between the verb and the object (as in (6.35b))—as this is ungrammatical.

(6.35) a. őjpe ko-a ten
    snuff ingest-THV strong
    ‘(He) sniffs snuff strongly’

b. *őjpe ten ko-a
    snuff strong ingest-THV
    ‘(He) sniffs snuff strongly’

It is important to note that verbal reduplication\(^{139}\) can also be understood as expressing an adverbial notion, though it is a morphological property of the verb and not an adverbial word on its own. The context is what tells us how to understand the expression assigned by this morphological process. Below are examples of verbal reduplication that, from a semantic point of view, are used adverbially.

(6.36) a. kota-kota-kota
    climb-RED-RED
    ‘(He) climbs fast’

b. o=neme-neme
    1s=run-RED
    ‘I ran quickly’

c. Aramira kopkap kit-kit-kit-ka
    Aramira annatto seed-RED-RED-TR
    ‘Aramira takes the annatto’s seed quickly’

d. i-i-ka
    liquid/genipap-RED-TR
    ‘(She) paints quickly’

e. kîn-kîn
    scratch-RED
    ‘(It) scratches very much’

---

\(^{139}\) More on verbal reduplication in section 5.11.4.
6.4 Summary

In this chapter, I have examined the basic structures of adjectives and adverbs. Adjectives and adverbs are described as an open class, though a small one. Adjectives, nouns, verbs and adverbs can be similar to a degree, but they have some divergent characteristics of syntax that lead to their being categorized as independent members of different lexical classes.

Adverbs (manner adverbs and some locative adverbs) in the language, from a morphological point of view, have no independent status of their own; rather, words that are adjectives in form and basic meaning can be used to modify verbs, and thus in that context have an adverbial function. However, adjectives used as adverbs are syntactically different from prototypical adjectives; that is, adverbs are words that have no fixed order in the clause, being allowed to occur at the beginning or at the end, though they are not allowed to come between the object and verb within the verb phrase.
7.1 Introduction

The closed word classes in Akuntsú are pro-forms, particles, postpositions, ideophones, and interjections. Some of the closed classes, such as pro-forms and postpositions were discussed in sections 4.8 and 4.3.1.1 respectively.

The main purpose of this chapter is to address the main generalizations about, and specific functions of, the remaining closed classes: particles, ideophones and interjections. Firstly, particles are defined and illustrated in part by their semantic characteristics and in part by their form, generally considered to be small elements (§7.2). In sections 7.3 and 7.4, respectively, ideophones and interjections are discussed. The last section gives a summary of the main points presented in this chapter (§7.5).

7.2 Particles

Particles are here defined as a closed class of phonologically independent words that occur on the level of the sentence. They have a grammatical function and are usually very small, not made up of many segments. Particles are considered an invariable class of words that do not take any inflection or derivation morphemes. Particles cannot function as a
predicate by themselves and differ from both ideophones and interjections by how they are integrated syntactically into the sentence—that is, ideophones and interjections are not used in a syntactic construction with other word classes, as particles are. The most productive particles in the language are described in this chapter, with focus on their distribution in the clause and their main functions.

7.2.1 Epistemic particles

There are so far three epistemic particles identified in the texts and narratives, namely mã ‘indeed/truly,’ nika ‘maybe/perhaps,’ and dap ‘he/she said that... (reportative).’ All three of these particles indicate in some way the speaker’s attitude towards the proposition.

7.2.1.1 Certainty mã

The particle mã is called in this study an epistemic particle, meaning ‘indeed/truly.’ It occurs at the end of the clause and it appears in sentences where the speaker wants to convey the certainty of a proposition.

(7.1) \[i=iat \ eni \ etfe \ mã\]
3s=lay hammock DIFF CERT
‘(He) is laying in the hammock’

(7.2) \[i=kij \ mã\]
3s=take CERT
‘It’s indeed to take it’

(7.3) \[őpera \ ta-ap \ otfe \ i=tfop-a \ mã\]
pineapple plant-NMLZ IPL.EXCL 3s=see-THV CERT
‘The planted pineapple, indeed we are going to see them’
(7.4) **kopiba kerɛ mā**
parrot (sp.) get.in CERT
‘The parrot got in’

(7.5) a. **Aramira et-a mā o=iat on**
Aramira sleep-THV CERT 1s=lay 1s
‘Aramira indeed sleeps, I am going to lie down’

b. **Pura et-a mā**
Pura sleep-THV CERT
‘Pura sleeps’

(7.6) **en perek mā**
2s wide/long CERT
‘You are indeed long’

### 7.2.1.2 Uncertainty **nika**

This particle conveys the uncertainty of the speaker about the truth of the proposition. It gives the idea of ‘maybe/perhaps’ or ‘not sure,’ indicating that his/her commitment to the truth-value of the proposition is not certain.

(7.7) **i=t-et nika**
3s=R-name UNC
‘I am not sure about its name’

(7.8) **e=i-mi tawtʃe nika**
2s=OBJ.NMLZ-kill peccary UNC
‘It may be your hunted thing, peccary’

(7.9) **ariano t-ek-ō nika**
Adriano R-house-ALL UNC
‘Maybe to Adriano’s house’

### 7.2.1.3 Reportative **dap**

In Akuntsú, there is an epistemic particle **dap** that is used by the speaker when they report/quote another person's speech, expressing the concept of ‘she/he said.’ This particle expresses that the veracity of what is said at the moment was not attested by the speaker,
and it also shows the hearer that what is being said is not the speaker’s own assertion, but represents the speech of someone else. The position of the particle is clause-final.

(7.10)  \( o=\emptyset-ti \) \( \text{pip} \) \( \text{dap} \)
1s=R-mother \( \text{afraid.of} \) \( \text{RPT} \)
“[…] my mother is scared” he said’

(7.11)  \( t\text{fonatâ} \) \( i=\text{mi} \) \( \text{dap} \)
Jonathan \( 3s=\text{kill} \) \( \text{RPT} \)
"Jonathan killed it” she said’

(7.12)  \( t\text{e}=\text{aot-a} \) \( \text{dap} \)
\( 3\text{COR}=\text{go.out-THV} \) \( \text{RPT} \)
“"It went out” she said’

(7.13)  \( k\text{e}=b\text{õ} \) \( t\text{op}=\text{erom} \) \( \text{dap} \)
\( \text{DEM=DAT} \) \( \text{father=NEG} \) \( \text{RPT} \)
"For that one, there is no father” she said’

7.2.2 Focus marker te

The function of this particle is to delimit the scope of the proposition which is to be taken as relevant by the listener from the point of view of the speaker. The focus marker te appears in many examples of natural conversation and narratives, appearing in declaratives and in interrogative sentences.\(^{140}\)

(7.14)  a.  \( \text{te}=k^{w}\text{ep-a} \) \( \text{te} \) \( \text{Buko} \) \( \text{te}=\text{i-ko} \) \( \text{at-a} \)
\( 3\text{COR}=\text{climb-THV} \) \( \text{FOC} \) Buquâ \( 3\text{COR}=\text{OBJ.NMLZ-ingest} \) \( \text{get-THV} \)
‘Buquá climbs, he pickes his food’

b.  \( \text{te}=k^{w}\text{ep-a} \) \( \text{te} \) \( \text{Konibu} \) \( \text{kota-kota} \)
\( 3\text{COR}=\text{climb-THV} \) \( \text{FOC} \) Konibú \( \text{go.up-RED} \)
‘Konibú climbs, climbs, climbs’

The focus marker takes the process as the relevant theme, that is, it highlights either the verb itself (7.15a) or the entire predicate (7.15b).

\(^{140}\) Section 5.10 provides the different functions of the morpheme te found in the language.
(7.15) a. \textit{tfop-a te te=mepit tfíramāti} \\
\textit{see-THV FOC 3COR=son/daughter.of.woman Txiramanty} \\
‘Txiramanty will see her son’ \\

b. \textit{i=tfop-a te karow i=ko} \\
\textit{3s=see-THV FOC Carol 3s=MOV.} \\
‘Carol is going to see it’ \\

The focus marker can also be used to give focus only to the object of the verb phrase. Notice that when the focus is on the object, the subject tends to move to the end of the sentence, as indicated in the following example:

(7.16) a. \textit{e=t-ek-et tfok-a te jē} \\
\textit{2S=R-house-DET build-THV FOC DEM} \\
‘This one will build your house’ \\

b. \textit{iki t-ek tfop-a te aparapia} \\
\textit{water R-house see-THV FOC non.Indian} \\
‘Non-Indian is seeing the well’ \\

In (7.17a-b) the subject is the focus of the discourse. The speaker in these situations wants to emphasize who is doing/carrying the event, as illustrated below in boldface:

(7.17) a. \textit{kite Konibu te atiti ta kite petkop} \\
\textit{one Konibú FOC corn plant one alone} \\
‘Only Konibú plants corn, one alone’ \\

b. \textit{o=ø-top papa}\textsuperscript{141} te Konibu mā \\
\textit{1s=R-father daddy FOC Konibú CERT} \\
‘My father is truly Konibú’ \\

The subject can also be highlighted in existential clauses, as seen:

(7.18) \textit{e=ø-pi-atfo on te tfokin} \\
\textit{2s=R-foot-INT 1s FOC small} \\
‘Your foot is big, I have small (one)’ \\

\textsuperscript{141} This is a Portuguese loanword: \textit{papai} ‘daddy’.
When the verb or the predicate is the focus of the sentence, the object moves to a position after the verb predicate. The subject may or may not be overtly expressed in the sentence.

(7.19) a.  *tfop-a*  *te*  *tabit*  
see-THV  FOC  garden
‘See the garden!’

b.  *piri*  *te*  *kipe*  
throw  FOC  machete
‘Throw the machete!’

c.  *on*  *ākʷ* *a-ākʷ*  *te*  *min+kapa-kapa*  
1s  wash-RED  FOC  vagina+roll-RED
‘I washed the underwear over and over’

Another way that the focus particle *te* is employed is when the speaker is answering information questions (such as questions like *what is it*, *who is it*, etc.) (7.20 a-c), as shown:

(7.20) a.  *kipēk*  *te*  
papaya  FOC
‘(It's) papaya’

b.  *Pura ojte*  *te*  
Pura  hat  FOC
‘(It's) Pura's hat’

c.  *pitoa=pe*  *kij*  *te=* *ip-a-ra*  *te*  
tobacco=OBL  take  3COR=come.back-HAB  FOC
‘He comes back to take tobacco’

The particle *te* is also employed in *yes/no* questions. It is used to focalize the relevant information. In (7.21a) the temporal adverb is emphasized in the question, while in (7.21b-c) the focus is on the noun and on the adjective respectively. Note that in the interrogative sentences below there is no morphological marker that indicates whether or not it is a question; rather, the intonation is what marks these sentences as interrogatives.
(7.21) a.  \(\text{kirē=bō te ip-a-ra Ariano?}\)  
\text{today=ALL FOC come.back-THV-HAB Ariano}  
‘Is it day (that) Adriano comes back?’

b.  \(\text{e=ø-ii te Ana?}\)  
\text{2s=ɬ-mother FOC Ana}  
‘Is your mother Ana?’

c.  \(\text{i=pet/e te?}\)  
\text{3s=good FOC}  
‘Is it good?’

### 7.2.3 Particle *emo*

The particle *emo* has the meaning of ‘also.’ This particle has scope over the entire noun phrase. It is usually an intra-sentential particle. The particle can follow a noun (7.22) or a pro-form (7.23). In (7.24) it is possible to see the behavior of this particle in a negative sentence.

(7.22) a.  \(\text{Aramīra kwako emo ita}\)  
\text{Aramira guan (sp.) also arrive}  
‘Aramira and the guan also arrived’

b.  \(\text{kora-kora emo tfame}\)  
\text{chicken also well/good}  
‘The chicken is also well’

c.  \(\text{Tʃiramāti i-ð Tʃiramāti emo i-ð}\)  
\text{Txiramanty OBJ,NMLZ-give Txiramanty also OBJ,NMLZ-give}  
‘It is Txiramanty's thing, it is also Txiramanty's thing (pointing to another thing)’

(7.23) a.  \(\text{eme emo}\)  
\text{DEM also}  
‘This one too’

b.  \(\text{apara no emo}\)  
\text{banana other also}  
‘The other banana too’

In negative constructions, the negative particle *nōm* is placed after the particle *emo*, where the negation has the scope over the proposition.
(7.24) a. tawtfe ki emo nom
    peccary river also no
    ‘It is not the peccary’s river either’

    b. en i=tfere-ka emo nom
    2s 3s=cut-TR also no
    ‘You don’t cut it either’

7.2.4 Particle ne

This particle appears in questions giving a hypothetical meaning to the proposition. The two examples below show how the particle is employed. Note that the particle ne occurs at the end of the clause.

(7.25) a. eni=bõ ne
    hammock=ALL HYP
    ‘Is it to the hammock?’

b. eti no ne?
    basket other HYP
    ‘Is the other basket?’

The particle ne can also appear with another interrogative particle arop ‘who/what’ (7.26). Note, however, that ne is not frequent in questions that already carry an interrogative word, as the one exemplified below:

(7.26) arop i-õ ne?
    who OBJ,NMLZ-give HYP
    ‘Who gave it?’

Besides its function above, ne can also appear in declarative sentences, which gives the meaning of [TO MAKE X] or [TO BECOME X], a notably different function from the one presented above. It shares characteristics both with a verbalizer (7.27) and with a translative morpheme (7.28), as following:

(7.27) a. Tʃaruj ape ne on
    Tʃaruj path VBLZ 1S
    ‘I’m making Tʃaruj’s path’
    Context: She was cleaning a path around the house.
b. *Enotej potpek nom ne*

Enotej thing no VBLZ
‘Enotej didn’t make the thing’

Context: Talking about the drawing on the notebook.

(7.28) a. [...] *aramīra ne en*

woman TRANSL 2s
‘Then, you become woman’

b. [...] *tawtʃe ap ne*

peccary fat TRANSL
‘(For) peccary’s fat’

When the particle *ne* occurs in declarative sentences, it has the same meaning as the clitic =*na* ‘essive.’ It seems that, at least in the data available, they can be interchangeable; however, further investigation needs to be undertaken to test this assertion.

### 7.2.5 Particle ː*ka*

The particle ː*ka* has the meaning ‘like this, in that way.’ It is intra-sentential and it is often followed by ideophones. This particle is very common in natural discourse and texts.

The distribution of the particle within the sentence is exemplified below:

(7.29) a. *oʔ o=pera ːka ʔeʔ-ʔeʔ tik pã-kʷa ːka*

INTER 1s=wake.up that.way IDEO-RED mosquito beat-TR.PL that.way
‘Oh, I woke up. That way, beating, beating, (I) beat the mosquitos, that way […]’

b. *aparapia te=kʷakʷa ːka hē-hē-hē-hē*

Non.Indian 3COR=cry that.way IDEO-RED-RED-RED
‘The non-Indian is crying that way hē hē hē hē’

c. *kijtpit ːka toj-toj on toj kijtpit at-a iki=ɾi*

fish that.way IDEO-RED 1s IDEO fish get-THV river/water=ABL
‘I catch fish that way (simulating the fishing), I’ll catch fish from the river’

d. *e=wibi-kʷa ːka βuh*

2s=slide-TR.PL that.way IDEO
‘You slided, that way, falling’
7.2.6 Existential a and tea

In Akuntsú, there are two particles that produce an existential meaning, namely *tea* (7.30) and *a* (7.31). The particles occur NP-finally.

(7.30) a. *i*ki *gë*ë *tea*  
    *river* *IDEO* *exist*  
    ‘There is the big river’

Context: After the raining, the volume of the river has increased.

b. *bab*a *i*-ko *ko-a *tea  
    *grandfather* OBJ.NMLZ-ingest ingest-THV *exist*  
    ‘There is grandfather's food to eat’

c. *te*=`p*-*pi *ma*ra-*ap *tea  
    3COR=R-foot fold-NMLZ *exist*  
    ‘There are his tied feet’

(7.31) a. *po* `ø*-*ak*ã *a  
    *hand* R-bone *exist*  
    ‘There is the bone of the hand’

b. *øjpe *a *tfop-*a *on  
    *tobacco* *exist* see-THV 1s  
    ‘It's tobacco (that) I'll see’

These particles also express possession in many of the translations found in the data, even though the possessor is not overtly expressed in the clause. The sentences below are classified as clauses that fit into the constructions called in this study TYPE 2, i.e., clauses that do not consist of a possessor and a possessed element (see chapter 8 for more information on existential clauses).

The existential constructions are reduced in terms of the number and kind of morphology they can have when compared to other constructions, which seems to be one of
the cross-linguistic characteristics of existential clauses (Payne 1997:123). Examples of each particle are given below:

**With /a/ [ʔa]**

(7.32) a. kado a
    necklace exist
    ‘There is necklace’
    Lit: Necklace exists.

b. bawrape a
    shaker exist
    ‘There is shaker’
    Lit: Shaker exists.

c. jê a
    DEM exist
    ‘There is this one’
    Lit: This exists.

d. t=ɔ-ok”aj a
    3S=R-tail exist
    ‘There is its tail’
    Lit: Its tail exists.

e. atfi a
    pain exist
    ‘There is pain’
    Lit: Pain exists.

The difference found between a and tea is not entirely clear, but the hypothesis is that the difference is connected to deictic meaning. The particle tea usually refers to someone or something at a distance from the speaker, while a refers to things or people that are usually near the speaker.

**With /tea/ [teʔa]**

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142 According to Payne (1997:123) "usually there is no or reduced evidence of grammatical relations in existential constructions (...)"
7.3 Ideophones

Ideophones and their representation of iconicity not only show examples of how word formation occurs in Akuntsú, but also show interesting manifestations of speakers’ life experiences. Iconicity and its relation to life experience are not new; earlier literature has mentioned, “the intuition behind iconicity is that the structure of the language reflects in some way the structure of experience” (Croft 2003:102). Although ideophones clearly are iconic, they do not always carry sounds that refer to the process or event that they related to.

Ideophones are found in many languages, and it is a well-known feature found in Tupían subfamilies, including, but not limited to Mundurukú (Crofts 1984), Raráramá (Gabas 1999), Arikém (Landin 2005, Everett 2006), Tupí-Guaraní (Seki 2000, Solano 2009), and Tuparían (Galucio 2001, Braga 2005). Ideophones are described in this study as expressions of sounds, appearances, manners, etc. perceived through the senses. Ideophones have been described by the literature variously; some cross-linguistic characteristics have

(7.33) a. potfek tea
              thing exist
       ‘There is the notebook’
Lit: Notebook exists.

b. te=amôja-ap tea
       3COR=dance-NMLZ exist
‘There is dancing’
Lit: Dancing exists.

c. tiri tea
       two exist
‘There are two (or more)’
Lit: Two (or more) exist.

d. eni iw tea
       hammock ugly/rotten/bad exist
‘There is a spoiled hammock’
Lit: Spoiled hammock exists.
been defined for ideophones (Voeltz and Killian-Hatz 2001:2, *apud* Smoll 2011-2012), as presented below:

<table>
<thead>
<tr>
<th>CROSS-LINGUISTIC CHARACTERISTICS OF IDEOPHONES</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Ideophones are semantically highly marked and express perceptual imagery of events and states;</td>
</tr>
<tr>
<td>(2) Ideophones generally have a special phonology;</td>
</tr>
<tr>
<td>(3) Ideophones often do not fit into normal syntactic patterns;</td>
</tr>
<tr>
<td>(4) Ideophones are often subject to processes of reduplication;</td>
</tr>
<tr>
<td>(5) Ideophones are often only used in oral language and tend to have a special dramaturgic effect.</td>
</tr>
</tbody>
</table>

**Figure 7.1** - Cross-linguistic characteristics of ideophones.

In Akuntsú, ideophones can contain segments that are not part of its regular phoneme inventory, which are exemplified in boldface below. The segments below represent a sound-symbolic representation of the sounds reproduced in different events.

In addition, the ideophones tend to keep the shape of the syllable structure (CV(C)) found in other lexical categories described for Akuntsú. They are typically pronounced with a relatively high pitch and intensity (this also applies to other lexical classes that allow reduplication). Some examples are given below:

(7.34)  

<table>
<thead>
<tr>
<th>Segment</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>uf</em></td>
<td>voiceless labiodental fricative</td>
</tr>
<tr>
<td><em>βuh</em></td>
<td>voiceless bilabial fricative</td>
</tr>
<tr>
<td><em>wifi</em></td>
<td>voiceless alveolar fricative</td>
</tr>
<tr>
<td><em>uh</em></td>
<td>glottal fricative</td>
</tr>
</tbody>
</table>

Additionally, ideophones carry different phonological characteristics related to vowel lengthening: they are intensively lengthened compared to other lexical categories. See
for example the lengthening in the ideophones *tfooo* ‘biii...g’ [big], and *wiiifi* ‘sliiii....ding’ [sliding].

Ideophones have other peculiar characteristics. The ideophones mostly function (syntactically) as verbs in this language, although they can also be adjectives or nouns. The speakers use little morphology on verbal ideophones; some examples of derivational iconicity are shown below, where *dow* represents the sound of a gunshot. In (7.35a-b), the ideophone *dow* is being used as a verb, receiving the thematic vowel, typical of verbs, whereas in (7.35c) the same ideophone is used as a noun. Note that the examples (7.35a-b) show the ideophone with the thematic vowel; however, it is optional and most of the ideophones in the data do not take all the inflectional and derivational morphology typical of verbs (see verbal morphology in chapter 5).

(7.35) a. *o=ø-ike* dow-*a*  *o=ø-kipi* dow-*a* wen-*a*
   1s=R-older.brother IDEO-THV 1s=R-young.sister IDEO-THV finish-THV
   ‘My older brother died, my little sister died, (they) ended up’

   b. *o=ø-ti* dow-*a* pi-*pi* wen-*a*
   1s=R-mother IDEO-THV shot-RED finish-THV
   ‘My mom died, they shot repeatedly, it's over’

   c. *aparapia* mapi dow
   non.Indian shotgun IDEO
   ‘Non-Indian's gun bullet’

Another example of ideophones functioning in different word classes is shown in (7.36) below. This example shows part of a conversation where speakers are talking about a cut on the hand. In (7.36a) the lexical verb ‘to cut’ *korom* is mentioned, and after it they begin to replace this verb with the ideophone *ku*, which functions as a verb in (7.36b). In the next example, the same ideophone is used as a noun and as a verb respectively, as seen in (7.36c). Note that the final vowel of the ideophone is reduplicated indicating the manner that
it was cut.

(7.36) a. \textit{on o}=\textit{ø-po \textit{korom-ka}}
\begin{tabular}{ll}
1S & 1S=R-hand cut-TR \\
\end{tabular}'I cut my hand'

b. \textit{po \textit{k/u-ka}}
\begin{tabular}{ll}
hand & IDEO-TR \\
\end{tabular}'I cut the hand'

c. \textit{\textit{k/u a kipe \textit{k/uuu}}}
\begin{tabular}{ll}
IDEO & exist machete IDEO \\
\end{tabular}'I have a cut, the machete cut strongly’

There are also kinds of ideophones that function as adjectives, as seen below:

(7.37) \textit{Konibu \textit{ø-toa-ap t\textit{f/o}oo}}
\begin{tabular}{ll}
Konibú & R-lay-NMLZ IDEO \\
\end{tabular}'The hammock of Konibú is big’

Ideophones are often reduplicated. It is possible to have three, four or five repetitions of the basic form, or even more when it is necessary, depending on the amount of emphasis that the speaker wants to give to the event. The reduplication can also indicate repeated actions, intensification or the duration of the process. The number of repetitions depends on the context, such as the intensity of an action that the ideophone represents. Compare examples (7.38a-c), where \textit{k^w at} is sound symbolic of the water boiling.

(7.38) a. \textit{te=\textit{k^w at-ka}}
\begin{tabular}{ll}
3COR= IDEO-TR \\
\end{tabular}'It's boiling it’

b. \textit{iki \textit{k^w at-k^w at-ka}}
\begin{tabular}{ll}
water & IDEO-RED-TR \\
\end{tabular}’Water is boiling vigorously’ (repeated from (3.20))

c. \textit{\textit{k^w at-k^w at-ka} i=tip-ka \textit{o=jα}}
\begin{tabular}{ll}
IDEO-RED-RED-RED & 3S=soft-TR 1s=sitting \\
\end{tabular}'It boils intensively, I am cooking it’
In the examples below, \( \beta \text{uh} \) represents the sound of something/someone falling down:

(7.39) a. \( \text{k}i\text{p} \text{ te=} \text{par}\- \text{ka} \text{ kip} \text{ te=} \beta \text{uh} \)
wood 3COR=break-TR wood 3COR=IDEO
‘Wood cracked, wood has fallen down’

b. \( \text{te=} \text{akat-a} \text{ te=} \beta \text{uh} \)
3COR=fall-THV 3COR=IDEO
‘He fell, he fell down’

One of the most frequently used ideophone is \( \text{bu} \text{ru} \) which indicates the movement of person going or coming, as seen in (7.40).

(7.40) a. \( \text{on} \text{ bu-ru-ru-ru} \text{ kijpit at-a} \)
1S IDEO-RED-RED-RED fish get-THV
‘I am leaving to catch fish’

b. \( \text{en} \text{ i=} \text{at} \text{ kom e=} \phi- \text{ok}''a \text{ bu-ru} \)
2s 3s=get PROJ 2s=R-young.brother IDEO-RED
‘You’ll take him, your young brother comes’

The speakers also use other types of ideophones, and some of them are illustrated below:

(7.41) \( \text{apa rapia-t} \text{ k}'\text{amoa k\-kiw\-kiw} \)
non.Indian-DET shaman IDEO-RED-RED
‘The doctor wiggled (repeatedly)’

(7.42) \( \text{Nanoj on} \text{ Arami\-ra meti} \text{ d\-k\-d\-k} \)
Nanoj 1s Aramira maripa's fruit IDEO-RED
‘Nanoj, Aramira and I are hitting the maripa's fruit many times (to break it)’

(7.43) a. \( \text{i=} \text{kerat-kw} \text{ \-a ka pi-pi} \)
3s=split-TR.PL that.way IDEO-RED
‘(You) split it, that way, cutting’

b. \( e=} \phi- \text{po} \text{ ak\-piii te} \)
2s=R-hand hand IDEO FOC
‘You snap your hand's bone’
Akuntsú people have used ideophones and gestures as a way to facilitate their communication with the FUNAI staff. Since the Akuntsú are monolinguals and there is no contact language to use with outsiders, the use of ideophones (full of iconic expressions) seems to be a way that they have found to compensate for the lack of communication with these outsiders. This hypothesis (along with their isolation from non-Indians) may help to explain why the Akuntsú people, since contact, have not learned Brazilian Portuguese: mostly because they do not need it; they found a way for the use of ideophones in combination with gestures to serve their primary needs.

7.4 Interjections

Interjections in Akuntsú are words used as a result of speakers’ emotions and reactions to different situations, a result of "various cultural conventions that govern social and inter-personal relations" (Givón 2001:102).

They are not used in syntactic constructions with other word classes—that is, the interjections have no syntactic connection to other words found in an utterance. Unlike ideophones, interjections do not present verbal functions or any other function related to any other word class. The interjection usually comes at the beginning of the utterance, and can also form a phrase by itself. Some of the interjections most commonly used by the speakers are repeated here from previous sections in table 7.1 below:
<table>
<thead>
<tr>
<th>INTERJECTION</th>
<th>SITUATION/Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ahá</td>
<td>To indicate surprise, to approve some activity or the result of some work.</td>
</tr>
<tr>
<td>oʔ</td>
<td>The speaker wants to indicate his/her arrival.</td>
</tr>
<tr>
<td>iwe</td>
<td>To indicate pain; mostly used with non-Indians.</td>
</tr>
<tr>
<td>ê</td>
<td>To call someone’s attention.</td>
</tr>
</tbody>
</table>

**Table 7.1 - Sample of interjections.**

Some examples of interjections within utterances are presented below:

(7.45)  
\[ \text{o}=\text{ip} \quad \text{on} \]  
\[ \text{Ooo} \quad \text{1S}=\text{come.back} \quad \text{1S} \]  
‘Ooo, I arrived’

(7.46)  
\[ \text{aha} \quad i=t\text{ame}=\text{na} \]  
\[ \text{aha} \quad \text{3S}=\text{beautiful}=\text{ESS} \]  
‘Aha, it’s beautiful’

There is also the borrowed word *iwe* \(^{143}\) which functions as an interjection in the language; it can have both vowel lengthening (7.47) and can be reduplicated (7.48).

(7.47)  
\[ \text{o}=\text{o}-\text{am}\text{invite} \quad \text{iweee} \]  
\[ \text{1S}=\text{R-knee} \quad \text{IDEO} \]  
‘My knee is hurting very much’

(7.48)  
\[ \text{te} \quad \text{āka} \quad \text{ōjpe} \quad \text{ko-a} \quad \text{iwe-iwe} \quad \text{eo} \quad \text{atf}/ \]  
\[ \text{3S} \quad \text{that.way} \quad \text{snuff} \quad \text{ingest-THV} \quad \text{IDEO-RED} \quad \text{belly} \quad \text{pain} \]  
‘[…] he, that way, sniffed snuff, it is hurting so much, the belly is hurting’

**7.5 Summary**

The purpose of this chapter was to provide an overview of the different particles found in this language, as well as their function and syntactic position in clauses. This

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\(^{143}\) This interjection is a borrowing word from Kanoë language *iwa-e/ pain-NMLZ ‘pain’ (Bacelar 2004:114)
chapter also provided a description of ideophones and their main characteristics. In addition, some of the most frequent interjections were discussed and illustrated. Table 7.2, below, summarizes the main findings:

<table>
<thead>
<tr>
<th>CLOSED CLASSES</th>
<th>MAIN CHARACTERISTICS</th>
</tr>
</thead>
</table>
| Particles      | • Syntactically integrated into the sentence;  
                  • Do not constitute a predicate by itself. |
| Ideophones     | • Constitute a predicate by itself;  
                  • Can represent different grammatical categories. |
| Interjections  | • Constitute a predicate by itself;  
                  • Express speaker's emotion and reaction |

Table 7.2 - Main characteristics of interjections, particles and ideophones.
CHAPTER 8
SIMPLE CLAUSE TYPES

8.1 Introduction

The aim of this chapter is twofold. The first goal is to investigate the main non-verbal clauses in this language, seeking to describe their key semantic and morphosyntactic characteristics. The second goal of this chapter is to provide a brief description of the sentence types discussed in chapter 5, but this time with a focus on negative and interrogative clauses. The discussion seeks to outline the differences between various utterances, such as declarative, negative and interrogative, putting emphasis on the strategies Akuntsú employs to indicate each sentence type. This chapter is organized as following:

- Predicate complements (§8.2), with the following subsections:
  - Equative and proper inclusion predicate complements (§8.2.1);
  - Existential constructions (§8.2.2);
  - Adjectival predicate complements (§8.2.3);
  - Locative predicate complements (§8.2.4);
- Discussion of verbal predicates (§8.3);
- Interrogative clauses (§8.4), with a description of intonation pattern in polar questions and the structure of content questions in this language;
- Negative clauses (§8.5);
8.2 Predicate complements

A predicate complement is here defined as a predicate that lacks a real verb or copula. The important characteristic of this type of predicate is that there is no overt copular element in this type of sentence. There are five main kinds of sentences with predicate complements to be discussed in this section: proper inclusion and equation predicate complements, existential, adjectival, and locative (with postpositional or adverbial phrases) predicate complements.

The word order in non-verbal clauses is often [SUBJECT (NP) + COMPLEMENT (NP)] (with exceptions described further in this section) and there is a φ copula\(^{144}\) between the subject NP and its predicate complement.

8.2.1 Nominal predicate complements

Nominal predicate complements are those that have a noun as the predicate complement. In the literature, it is possible to find two types of predicate complements, called proper inclusion clauses and equational clauses (by Payne 1997:114). These two types are also found in Akuntsú, as discussed and illustrated in the following subsections. Note that equatives and proper inclusion predicate complements differ from a semantic perspective (only). Table 8.1 presents the predicate complements and their grammatical

\(^{144}\) Copula is here defined as a term that "(...) refers to a linking verb (...) whose main function is to relate other elements of clause structure, especially subject and complement" (Crystal 1980:93 \textit{apud} Pustet 2003:2). According to Pustet (2003:2) there are three main known syntactic functions of copulas: (1) to function as a link between the subject and predicate complement; (2) to function as the element for inflectional verb morphology to be attached to; and (3) as to be a predicator, for those elements that cannot form predicates on their own.
structure.

<table>
<thead>
<tr>
<th>NOMINAL PREDICATE COMPLEMENT</th>
<th>EQUATIVE</th>
<th>PROPER INCLUSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø copula</td>
<td>NP + NP (Juxtaposition)</td>
<td>NP (independent noun) + Focus particle te or Essive clitic =na or NP + NP (Juxtaposition)</td>
</tr>
</tbody>
</table>

Table 8.1 - Predicate complement internal structure.

8.2.1.1 Equative constructions

Equative constructions are clauses that have two NPs in juxtaposition, as in the structure \([NP_1 = NP_2]\), where the NP_1 is identical to the NP_2 specified in the predicate complement (Payne 1997:114). Presented below are some examples of this equative construction:

(8.1) a. \(en\ o=\phi-mepit\)
   2s  1s=r-son/daughter.of.woman
   ‘You are my daughter’

b. \(o=\phi-tjej\ te\ Pupak\)
   1s=r-uncle  FOC  Pupák
   ‘My uncle is Pupák’

c. \(k^wak^w\ a\ i=t-et\)
   \(k^wak^w\ a\ 3s=r-name\)
   ‘\(k^wak^w\ a\) is her name’

Note in example (8.1b) above and (8.2a) below (section 8.2.1.2) that the equative predicate has a focus marker between the subject and the predicate. In relation to the presence of the focus marker, predicate complements pattern similarly to verbal predicates,
in the sense that the focused element is the one placed before the particle te—i.e., the focused syntactic constituent is fronted.

8.2.1.2 Proper inclusion

Proper inclusion refers to two nominal phrases in juxtaposition where the first noun has a relationship with the second one; that is, the first noun is semantically part of a class or category specified in the nominal predicate, as in the English sentence A trout is a fish. (Payne 1997:114). Note that there is no morphological difference between equative and proper inclusion predicate complements. They diverge only semantically. In examples (8.2a-b) the subject NP is a pronoun while in example (8.2c) the subject NP is a full noun phrase.

(8.2) a.  

en  te  aramira  
2s  FOC  woman  
‘You are a woman’

b.  

on  akutfu  nom  
1S  Akuntsu  no  
‘I am not Akuntsú’

c.  

nako-t  aparapia  
man-DET  non.Indian  
‘The man is non-Indian’

Proper inclusion constructions can also be formed with an independent noun as the head of the predicate and they are usually followed by the focus particle te (8.3) or by the essive morpheme =na145 (8.4), where the latter construction is more frequent in the data

(8.3)  

kipok  te  
papaya  FOC  
‘It is papaya’ (repeated from (7.20a))

145 For the definition and description of the essive morpheme see section 4.3.1.2.
(8.4) a.  \textit{kiakop} = na
sun=ESS
‘It is sunny’

b.  \textit{i=ø-ap} = na
3s=R-fat=ESS
‘It is its fat’

The next subsection describes negation in predicate nominals.

\textbf{8.2.1.3 Negation}

Negation in equational and proper inclusion clauses of [NP + NP] is made with the clitic \textit{=(e)rom} (8.5a-b) or with the particle \textit{nõm} (8.6). In (8.7), the negation comes after the second NP:

(8.5) a.  \textit{apaw} \ i=t-et=\textit{erom}
grub (sp.) 3s=R-name=NEG
‘It is not called grub’

b.  \textit{jê} Aramîra  ø-mepit=\textit{erom}
DEM Aramira  R-son/daughter.of.woman=NEG
‘This is not Aramira’s son’

(8.6) \textit{apaw} \ i=t-et \ nom
grub (sp.) 3s=R-name no
‘It is not called grub’

This strategy to negate predicate complements is similar to negation of other types of predicates. In verb constructions, the negation usually goes before or/and after the verb, where the scope of the negation is over the whole predicate. See details about negative clauses in section 8.5.

(8.7) \textit{erê=bõ} \ nom \ tfet=\textit{om}
2S.EM=DAT no leave=NEG
‘You don’t leave’

The possible positions of the negation in equative clauses are summarized in Figure 8.1.
8.2.2 Existential constructions

Existential predicates are those that assert the existence of an entity. They may also allow possessive readings. The existential constructions can be semantically divided into two types. **TYPE 1** often associates two NPs in juxtaposition, while **TYPE 2** sentences do not use the structure [NP + NP], but rather are clauses that contain the particle *a* or *tea* (existential markers).146 Table 8.2 illustrates how the existential predicates are distributed in this language according to internal structural criteria, as shown:

<table>
<thead>
<tr>
<th>EXISTENTIAL PREDICATES</th>
<th>TYPE 1</th>
<th>TYPE 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø copula</td>
<td>NP + NP (Juxtaposition)</td>
<td>NP + <em>tea</em> / <em>a</em></td>
</tr>
</tbody>
</table>

**Table 8.2** - Existential predicates’ internal structure.

The main difference between a **TYPE 1** and **TYPE 2** sentences (as seen from table 8.2) is that the latter has a predicate complement that cannot be combined to another NP in a juxtaposition construction. Below, each sentence type is exemplified and discussed.

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146 Since existentials were discussed in a previous chapter, I focus here only on the types of existential constructions not mentioned earlier in this study. For the properties of particles see section 7.2.
TYPE 1

Type 1 clauses are existential clauses (with possible possessive readings)\(^{147}\) that have a noun as the head of the predicate. There are two NPs that are joined to form a genitive construction—that is, one of them refers to the possessor, and the other to the possessed. Type 1 predicates share features with the predicate complements, i.e., they are the result of two NPs in juxtaposition as \([\text{NP} + \text{NP}]\), as seen below:

\[(8.8)\]  
\(a. \quad jê \quad nom \quad pi + kapa-kapa\)  
\(\text{DEM no feet + roll-RED}\)  
‘This one doesn’t have shoes’  
Lit: ‘Shoes don’t exist for this one.’

\(b. \quad orê \quad o=ø-koro\)  
\(1\text{S.EM} \quad 1\text{S}=\text{R}-\text{bowl}\)  
‘There is my bowl’ (‘I have a bowl’)  

\(c. \quad jê \quad kem+ki\)  
\(\text{DEM breast+liquid}\)  
‘This one has breast-milk’ (repeated from (3.29))  
Lit: Breast-milk exists for this one.

\(d. \quad on \quad o=ø-tfajâ\)  
\(1\text{S} \quad 1\text{S}=\text{R}-\text{earring}\)  
‘I have earrings’  
Lit: Earrings exist for me.

TYPE 2

Type 2 existential constructions occur with either the particle \(a\) or the particle \(tea\)

\[(8.9)\]

\(8.9\) a. \(ek^\text{it} \quad tea\)  
\(\text{honey exist}\)  
‘There is honey’

\(^{147}\) This is not uncommon cross-linguistically. As Payne (1997:126) reported, “languages usually employ existential and/or locational structures to express the notion of possession.” Turkish, for example, “uses the verb meaning ‘exist’ that also occurs in the existential constructions” in possessive constructions, as do many languages, including Latin, which had the construction, e.g. \(mihi est\) [1pers.dat is/exist.3pers.pres.indicatve] ‘I have’, literally ‘to me is/exists.’
Context: Looking at a tree and saying that up there, there is honey to get.

b. $k^w e + ni$  
   game meat + to weave$^{148}$ exist  
   ‘There is a mat’

c. $tʃame a$  
   good exist  
   ‘There is a good one’

However, I would like to call attention to negative constructions. In these constructions, the NP can occur independently as a predicate complement, that is, it occurs without the addition of any other morphology, as follows:

[NP + NEG]

This construction can be seen in the below examples:

(8.10) a. $ek=erom$  
   house=NEG  
   ‘There is no house’ (repeated from (6.12))

   b. $taip=erom$  
      son.of.man=NEG  
      ‘There is no son’

For predicates with the particles $tʃa$ and $a$, the only possible negative structure is the one with the particle $nõm$. So far, no examples where the clitic $=(e)rõm$ is employed in these constructions have been found.

(8.11) $e=ø-pi \ aṭfĩ \ nom \ a$  
   2s=r-foot pain no exist  
   ‘There is no pain in your foot’

8.2.3 Adjectival predicate complements

In adjectival predicate complements, the adjectives occur as predicate complements

$^{148}$ This example shows a case of the compound form of [NOUN + TRANSITIVE VERB]. However, only a few cases were found in the data. This particular situation will be treated with special attention in future studies.
indicating a property or an attribute of the noun phrase that is the subject of this 
construction. As seen below, as with the nouns, the adjectives are also capable of forming 
predicate complements in a juxtaposition construction. There are no morphological criteria 
to differentiate predicate complements of the [NP + NP] type from adjectival predicate 
complements of the [NP + ADJ] type. The predominant criterion used here was semantic. The 
structure of adjectival predicate complements is [NP + ADJ].

(8.12) a.  *Konibu  kipi*
    Konibú  old.man
    ‘Konibú is old’

    b.  *Pupak  pagop*
    Pupák  young.man
    ‘Pupák is young’

Adjective phrases also occur with the particle *te* or with the essive clitic =*na*. This 
structure is similar to some nominal predicate complements:

(8.13) a.  *i=kop=na*
    3s=red=ESS
    ‘It is red (corn)’

    b.  *i=iw  te*
    3s=rotten  FOC
    ‘It is rotten’

Note that unlike verbs, adjectives and nouns do not allow thematic vowels to attach 
to them, and unlike verbs, they can function as arguments of predicates without taking any 
morphological marker (such as the nominalizer morpheme).

Negative constructions with adjectival predicate complements are formed by simply 
using the negative particle (8.14) or the negative clitic (8.15) after the adjective, as shown 
below:
(8.14)  \textit{Pupak} i=ten nom
Pupák 3s=strong no
‘Pupák is not strong’

(8.15)  i=tobe=rom
3s=delicious=NEG
‘It isn’t delicious’

Neither the particle \textit{te} nor the essive clitic =\textit{na} is necessary for attributive adjective complements, when the negative morphemes show up in the clause.

\textbf{8.2.4 Locative predicates}

There is another type of non-verbal predicate in the language, namely locative predicates. The locative predicates are the juxtaposition of a noun phrase and a postpositional phrase, in the order of [NP + PP], as seen in (8.16), or of noun and a locative adverb that has either the structure [ADVP + NP] or [NP + ADVP]. Examples of locative predicates are presented below:

[\text{NP + LOCATIVE EXPRESSION}]

(8.16)  a.  amon  e=Φ-ape etfe
        soap  2s=R-thigh DIFF
        ‘The soap is on your thigh’

b.  t=Φ-anam etfe kap
3s=R-head DIFF wasp
‘A wasp is on his head’

(8.17)  a.  Tfaruj  otfe  t-ek etfe
        Tfaruj  1PL.EXCL R-house DIFF
        ‘Tfaruj is in our house’

b.  jō  kipe
here machete
‘Machete is here’
The negation is also formed with the particle nõm or the clitic =({e})om, as following:

\[(8.18)\]

a. \(kirê=bõ\) nom
today=ALL no
‘It is not today’

b. \(jô\) kipe=rom
here machete=NEG
‘The machete isn’t here’

8.3 Verbal predicates

Clauses composed with verbal predicates are divided into two categories: transitive predicates and intransitive predicates. This division is made according to the number of arguments required by the verb. Intransitive predicates are those that require only one argument, the subject; transitive predicates are those that require two arguments, namely a subject and an object. Pro-forms or nouns can function as object or subject in these predicates.

8.3.1 Transitive predicates

Following Hopper and Thompson (1980), transitivity is here defined as an activity, which is ‘carried-over’ or ‘transferred’ from an agent subject to a patient object. It involves two arguments and an action. Transitive verbs are those that syntactically have a direct object (O). The transitive verbs in Akuntsú obligatorily bear a marker; whether it cross-references the subject or the object depends on the animacy of the object and of the subject being used in the discourse, as presented in chapter 5.

The first goal of this section is to present reasons for subject ellipsis in this language. As noted in previous examples, the subject can be omitted in transitive clauses; this is mainly due to pragmatics, as pointed out below. The pragmatic functions discussed in figure

**SUBJECT ELLIPSIS**

(1) The elided argument that plays the subject role was mentioned earlier in the conversation and so the speaker has the necessary information to determine the relationship between argument and predicate;

(2) What the hearer presumes that the speaker is conscious of, i.e., the situation that involves both speaker and addressee shows who the elided agent is. It is presupposed\(^{149}\) or predictable from the context;

(3) What is foregrounded as important versus what is backgrounded as secondary—that is, the parts of discourse which do not immediately contribute to the goal of the story-line are considered the background. The parts of the discourse which supply the main story-line points are the foreground. The foregrounded material conveys the skeleton of the conversation, which means that when the subject is omitted the OV is the main portion of the utterance, i.e., it contains foregrounded information.

**Figure 8.2 - Pragmatic factors for subject ellipsis.**

Note that even though the subject can be elided, the transitive clause needs to be instantiated by the subject somehow. Thus, two arguments (overt or not) are strictly necessary in transitive constructions. Table 8.3 shows whether or not the subject and object of transitive clauses can be a full NP, a free pronoun, a bound pronoun or a demonstrative. Note that only one element is cross-referenced on the transitive verbs, namely the object or the subject—the subject is only marked on transitive verbs when the object is a 3\(^{rd}\) person

\(^{149}\) Topics are presupposed information.
non-animate full NP and the subject (agent) is a pronoun.150

<table>
<thead>
<tr>
<th>OBLIGATORY ARGUMENTS OF TRANSITIVE VERBS</th>
<th>SUBJECT AND OBJECT IN TRANSITIVE CLAUSES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full NP</td>
</tr>
<tr>
<td><strong>Subject</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Object</strong></td>
<td>Yes</td>
</tr>
</tbody>
</table>

Table 8.3 - Subject and Object in transitive clauses.

(8.19) pitoa o=kōj-ka kōj-kōj-kōj
tobacco 1s=pound-TR pound-RED-RED
‘I'm going to pound the tobacco, kneading (intensively)’

Besides the required arguments (subject and object), transitive clauses (as well as intransitive clauses) also allow non-core arguments, such as in adverbial phrases (8.20) and other oblique phrases (8.21).

(8.20) ororo + pe ūkʷa kirē
cotton + skin/peel wash/clean today/now
‘...he washes the clothes now’
Lit.: ‘He washes to/on the clothes’

(8.21) erē=bō i=kij
2s.EM=DAT 3s=take
‘It is for you to take it’

8.3.1.1 Word-order in transitive predicates

In Akuntsú discourse, the most frequently used word-order in transitive sentences is SOV; however, OVS and VOS (while less frequent than the other two) are also found in

150 See chapter 5 for details.
situations where the object or the event are the focus of the clause, which are often marked by the focus marker *te*.

The object of transitive clauses often precedes the verb, and the S (subject) can either precede or follow the verb phrase (OV). Thus, the word order of transitive clauses can be SOV (8.22a), OVS (8.22b) or VO(S)\(^{151}\) (8.22c):

(8.22) a. *poraki iki apeka* (SOV)  
curassow water drink  
‘Curassow is drinking water’

b. *iki apeka poraki* (OVS)  
water drink curassow  
‘Curassow is drinking water’

c. *apeka te iki* (VO(S))  
drink FOC water  
‘Drink water!’

In Akuntsú, when the agent occurs post-verbally, it is due to the fact that the patient is the main topic of the conversation. Focus markers may (8.23) or may not (8.24) appear, depending on the semantics of the proposition.

(8.23) *tawtʃe tʃop-a te  Konibu* (OVS)  
peccary see-THV FOC Konibú  
‘Konibú is going to see the peccary’

(8.24) *pero ōpa  Konibu* (OVS)  
macaw beat Konibú  
‘Konibú beat the macaw’ (repeated from (5.43b)

The position of the object is usually pre-verbal: when it is placed after the verb there is often a focus marker indicating the movement, as in (8.25-8.26).

(8.25) *mi-a te poga* (VO(S))  
kill-THV FOC tortoise  
‘Kill the tortoise!’

\(^{151}\) VOS word order often happens in imperative clauses and the subject is usually ellipsed.
8.3.1.2 Demotion of the direct object: antipassive construction

In Akuntsú, the antipassive voice is not morphologically marked directly on the verb, but through the demotion of the object to an oblique position in a given transitive clause. The oblique clitic =pe marks the object when it is occurring outside of the usual syntactic position of the object. This type of construction is well-known as an antipassive construction. In such constructions, the subject does not change its status and it continues to be the agent of a transitive clause. However, in this strategy the core internal argument of a transitive verb, its logical direct object, changes its status to a non-core, oblique argument.

Unlike other languages in which the verb receives an antipassive morpheme (Comrie 1998), the corresponding constructions in Akuntsú do not receive any overt marker on their verbs, i.e., there is no visible antipassive morphology, as illustrated in the following examples:

```
(8.27) a. tiri puru-ru-ru me-me-me ek pagop=pe
       two IDEO-RED-RED IDEO-RED-RED house new=OBL
       ‘In two (days) that one goes back and forth and builds [on] a new house’

     b. kipepo i=parâ-ka kip=pe
       wind 3s=break-TR tree=OBL
       ‘The wind is breaking [away at] the tree’

     c. aparapia o=φ-ike dow, mi-a o=φ-ike=pe
       non.Indian 1S=R-older.brother IDEO kill-THV 1S=R-older.brother=OBL
       ‘The non-Indian killed my older brother, he killed my older brother’
```

---

152 The cognate morpheme pe is also described as a mark of object demotion in related languages (Rodrigues and Caspar (1957) and Galucio (2001)).

153 Aragon (2008:99-100) has identified a morpheme pe as a marker of indirect object of a lexical transitive verb.
As seen above, the patients of transitive verbs are marked as oblique in all these examples. Thus, the antipassive in this language is characterized by having a voice (as seen in some other Tupían languages, such as Karitiana), where it "(...) is used in situations in which an action’s effects on a patient are reduced or de-focused" (Everett 2006:438).

The example below shows an oblique marker in a complex clause154:

(8.28) \[
\text{kwamoa} \text{ m}a\text{t} \text{ʃ} \text{e} \text{ɾ} \text{õjpe} \text{ ko} \text{ o=t} \text{ʃ} \text{et-a} \text{ ŵjpe} \text{ ko} \text{ pe=matfero} \\
\text{shaman Marcelo snuff ingest I}=\text{leave-THV} \text{ snuff ingest OBL=Marcelo} \\
\text{‘The shaman Marcelo takes snuff, I leave so that Marcelo will take the snuff’}
\]

8.3.2 Intransitive predicate

Intransitive predicates select only one argument, the subject (S). The subject can be expressed by different kinds of noun phrases, such as by pronouns (8.29a), non-human nouns (8.29b), human nouns (8.29c) or demonstratives (8.29d):

(8.29) a. \[\text{te=ita} \]
\[\text{3COR=arrive} \]
\[\text{‘He has arrived’}\]

b. \[\text{õjpe te=wibi-ka} \]
\[\text{tobacco 3COR=slide-TR} \]
\[\text{‘Tobacco is falling’}\]

c. \[\text{abatʃo te=k}^{w}\text{ep-a} \]
\[\text{grandfather 3COR=climb-THV} \]
\[\text{‘Grandfather is climbing’}\]

d. \[\text{ke wen} \]
\[\text{DEM finish} \]
\[\text{‘That one ended’}\]

154 The oblique clitic \text{pe} functions either as a proclitic or as an enclitic.
This language codes the subjects of active predicates (8.30) and stative predicates (8.31) with the same set of pronominal markers. The stative predicates have stems that denote states that affect their participants, as shown in the following examples:

(8.30) a.  
\[ o=\text{atf}a-a \]  
\[ 1s=\text{bathe-THV} \]  
'I bathe'

b.  
\[ e=\text{et}-a \]  
\[ 2s=\text{sleep-THV} \]  
'You sleep'

(8.31) a.  
\[ o=\text{pip} \]  
\[ 1s=\text{afraid.of} \]  
'I'm scared'

b.  
\[ e=\text{pek}a \]  
\[ 2s=\text{cold} \]  
'You are cold'

In intransitive clauses, the subject is only elided when the subject is third person and has been previously mentioned in the discourse, narrative or natural conversation, as illustrated below, where the verb with no subject marker is in boldface:

(8.32)  
\[ [... \]  
\[ o=\text{pe}ra \]  
\[ 1s=\text{wake.up} \]  
\[ \text{IDEO-RED} \]  
\[ \text{3COR=arrive} \]  
\[ \text{hole-TR} \]  
' [...] and I woke up tired, the mosquitos arrive and they stick (when they sting and blood comes out)'

8.4 Interrogative clauses

Interrogatives (questions) are used by the speaker in requesting information due to some lack of knowledge. The interrogatives in this language can be either yes-no questions (polar question) or content questions (information question).

The major difference between polar questions and content questions is that in the former, the speaker seeks either to confirm or deny the truth value of the proposition,
whereas in the latter, the speaker may ask for information, for instance about the subject, the object, the place, the manner, the time, etc. In this section, the intonation pattern in polar questions and their structural organization are described (§8.4.1), as well as the pattern of content questions (§8.4.2).

8.4.1 Intonation in polar questions

When there is no wh-question word present in the clause, the intonation pattern is crucial to distinguishing whether an utterance is an interrogative or a declarative sentence. Rising intonation is a common characteristic of polar questions in this language; hence polar clauses do not bear any other interrogative marker (no grammatical marker).

Rising intonation is a characteristic of interrogative clauses, even the content questions (more on content questions in the next subsection). In Akuntsú, rising intonation is usually seen at the end of the interrogative clause, while in declarative sentences the opposite holds—that is, declarative sentences usually carry a gradually falling intonation contour.

Firstly, compare the two examples below that illustrate the intonation difference between interrogative (8.33) and declarative clauses (8.34). In example (8.33), the intonation contour is at the end of interrogative sentences which is represented by a rising pitch toward the end of the clause. As for declarative clauses, a falling pitch at the end of the sentence represents its intonation contour. Note that the structure of interrogatives and declaratives is otherwise the same.

---

155 Rising intonation in interrogative clauses is also a characteristic of many languages. It is basically due to the fact that high pitch "signals uncertainty, indecision, hesitation and also insecurity" (Ohala 1993,1994; apud König and Siemund 2007:292).
(8.33)  \textit{nako=na?} \quad [nāˈko na]
\begin{itemize}
\item man=ESS
\end{itemize}
Is it a man?'

(8.34)  \textit{pitoa=na} \quad [pɪˈtua na]
\begin{itemize}
\item tobacco=ESS
\end{itemize}
‘It’s tobacco’

Now, more examples of intonational contours are shown below, which illustrate the same pattern presented in the pictures above. Interrogative clauses are presented first, followed by declarative clauses.
Let us now compare the intonation of interrogatives, as presented above, with the one in declarative clauses, as shown. Note the falling pitch in the end of each declarative clause.
Answers to polar questions are either yes or no. In Akuntsú, for a positive answer, the speaker often repeats the entire clause (with any additional information that they want to include) and usually inserts the focus marker at the end of the utterance. For example:
(8.40) a. *nako te wibi?*
   man  FOC slide
   ‘Did the man slid?’

   b. *nako wibi te*
   man  slide  FOC
   ‘The man slided.’

For a negative answer, the speaker can either use the negative particle *nõm* (8.41a) or can use this particle and the verb (8.41b).

(8.41) a. *nom*
   no
   ‘No’

   b. *nom wibi*
   no  slide
   ‘He didn’t slide’

When it is a non-verbal predicate question, as in the above question *nako=na* ‘Is it a man?’ the answer can be, for example, (i) (8.42a) with a falling contour for an affirmative answer, or (ii) (8.42b) to express a possible negative answer for that question:

(8.42) a. *nako=na*
   man=ESS
   ‘It is a man’

   b. *nom jê  aramîra*
   no   DEM  woman
   ‘No, this one is woman’

### 8.4.2 Content questions

Content questions are those that do not require a yes/no answer. This kind of interrogative clause poses questions about a subject, an object, the manner of an action, time, place, etc. That is, the interrogative forms in this language basically indicate what part
of a proposition the speaker is guiding the hearer towards to pay attention to. Intonation to show interrogation is optional in these clauses. The main interrogative words found in this language are presented in table 8.4.

<table>
<thead>
<tr>
<th>INTERROGATIVE</th>
<th>GLOSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>aɾop</td>
<td>‘what/who/why/whose/which’</td>
</tr>
<tr>
<td>tara</td>
<td>‘what/who’</td>
</tr>
<tr>
<td>ʔaka</td>
<td>‘how/when’</td>
</tr>
<tr>
<td>ɛrom</td>
<td>‘where’</td>
</tr>
</tbody>
</table>

**Table 8.4 - Interrogative words.**

The interrogative forms (alternatively called ‘interrogative pronouns’ in the grammatical literature) presented above allow different semantic meanings, depending on what part of the clause is in focus. Some of them can indicate either ‘what’ or ‘who,’ or can even represent other semantic meanings such as ‘why.’ Below, each one will be presented with its respective meaning and function.

Syntactically, the interrogative words occur in sentence-initial position, as a focused constituent does.\(^{156}\)

### 8.4.2.1 aɾop ‘what/who/why/whose/which’

The word aɾop means ‘what/who/why.’ The difference between aɾop ‘what’ and aɾop ‘who’ is discernable from the structure of the clause. That is, when the verb is nominalized with a structure of [NP i-VERB] or [PRON=i-VERB], giving the idea of, for

---

\(^{156}\) The focus marker is described in section 7.2.2.
example, ‘eaten thing,’ ‘hunted thing,’ etc., it makes clear to the addressee that the speaker is requesting information about the subject,\textsuperscript{157} as in:

\textbf{WHAT}

(8.43) a. \textit{aɾo}p \textit{te}=i-mi?  
\quad \textit{what} 3COR=OBJ.NMLZ-kill  
\quad ‘What may he hunt?’  
\quad \textit{Lit:} What may be his hunted thing?

b. \textit{aɾo}p \textit{te} \textit{te}=i-maj \textit{tfop-a} \textit{kom}?  
\quad \textit{what} FOC 3COR=OBJ.NMLZ-tell see-THV PROJ  
\quad ‘What did he say he would see?’

The word \textit{aɾo}p ‘who’ is used less frequently than the interrogative word \textit{tara} ‘who’ in utterances inquiring about the subject of the proposition. Only few examples of this kind of question were found in the data.

\textbf{WHO}

(8.44) \textit{aɾo}p \textit{te} \textit{i}=ko-a?  
\quad \textit{who} FOC 3S=ingest-THV  
\quad ‘Who ate it?’

In example (8.45) below, the verb is nominalized; however, the interrogative word is the element that is linked to the nominalized verb, so it does not follow the structure of the \textit{aɾo}p ‘what’ questions presented above. The structure in (8.45) is used when the speaker is requesting information about the possessor of an object.

(8.45) \textit{aɾo}p \textit{i-tfop}=na?  
\quad \textit{who} OBJ.NMLZ-see=ESS  
\quad ‘For whom (whose) is the seen (thing)?’

\textsuperscript{157} Note that in questions, only the object is marked on transitive verbs.
The word *aɾop* may also bear the ablative clitic =(*e*)ɾi; when this happens, it expresses an inquiry about the reason/purpose of a proposition, meaning ‘why,’ as exemplified below:

**WHY**

(8.46)  
\[ aɾop=eri \quad e=ip\text{-}a \quad ete? \]

what=ABL 2S=come.back REL

‘Why did you come back?’

To inquire about a specific object, the name of the thing that the speaker wants information about comes immediately after the interrogative word, as in the following:

**WHICH**

(8.47)  
\[ aɾop \quad kora\text{-}kora \quad e=i\text{-}mi? \]

what chicken 2S=OBJ.NMLZ-kill

‘Which chicken will be your killed (thing)?’

**POSSIBLE ANSWER TO A CONTENT QUESTION**

An example of a content question (in (8.48a)) followed by its answer (in (8.48b)) follows:

(8.48) a.  
\[ aɾop \quad te \quad te=i\text{-}maj \quad tfop\text{-}a \quad kom? \]

what FOC 3COR=OBJ.NMLZ-tell see-THV PROJ

‘What did he say (that he) would see?’ (repeated from (8.42b)).

b.  
\[ aparapia \quad te \quad te=i\text{-}maj \]

non.Indian FOC 3COR=OBJ.NMLZ-tell

‘The non-Indian said:’

\[ ikʷaj \quad i\text{-}ko \quad kʷak \quad tfop\text{-}a \quad on \quad kom \]

tapir OBJ.NMLZ-ingest sound see-THV 1s PROJ

‘I will see the tapir's food’
8.4.2.2 tara ‘what/who’

The word tara has a semantic meaning of ‘what/who.’ It follows the same structure described above for the word arop, meaning ‘what’ and ‘who.’

WHAT

(8.49) a. tara i=tfe e=erek-kʷa?
   what 3s=come 2s=speech-TR.PL
   ‘What is it that you speak?’

b. tara i=jã?
   what 3s=sitting
   ‘What is it?’

WHO

(8.50) a. tara e=∅-men=na?
   who 2s=R-husband=ESS
   ‘Who is your husband?’
   Lit: Who functions as your husband?

b. eme tara i=∅?
   DEM who 3s=give
   ‘This, who gave it?’

c. tara te ita mā?
   who FOC arrive CERT
   ‘Who arrived for sure?’

d. tara ip te?
   who come.back FOC
   ‘Who comes back?’

8.4.2.3 āka ‘how/when’

The word āka means ‘how’ and ‘when.’ The word āka behaves as a particle with the meaning ‘like this, in that way’ when it occurs intra-sententially, assuming characteristics of
particles in this language.\textsuperscript{158} In the example below (8.51) the interrogative word is used to question the manner (for example, by what type of transportation, car or motorcycle) by which the person will come back or will leave.

**How**

(8.51) a. \(\tilde{a}ka\ te=ita\ ete?\)
\begin{align*}
\text{how} & \quad \text{3COR=arrive} & \text{REL} \\
\text{‘How does he come back?’}
\end{align*}

b. \(\tilde{a}ka\ te=t\text{fet-a}\)?
\begin{align*}
\text{when} & \quad \text{3COR=leave-THV} \\
\text{‘How will he leave?’}
\end{align*}

This interrogative word is also used to inquire about the time of a proposition, and the word \textit{ebapa} ‘moon’ or \textit{kiakop} ‘sun’ is used after the interrogative word, as shown in the following examples:\textsuperscript{159}

**When**

(8.52) a. \(\tilde{a}ka\ kiakop\ te=ita\ ete?\)
\begin{align*}
\text{how} & \quad \text{sun} & \quad \text{3COR=arrive} & \text{REL} \\
\text{‘When does he arrive?’}
\end{align*}

Lit: ‘When [at what time of day] will he arrive?’

b. \(\tilde{a}ka\ ebapa\ te=ip-a\)?
\begin{align*}
\text{how} & \quad \text{moon} & \quad \text{3COR=come.back-THV} \\
\text{‘When will he come back?’}
\end{align*}

Lit: ‘When [in what month] will he come back?’

\textsuperscript{158} Details in section 7.2.5.

\textsuperscript{159} Questions requiring time information without the interrogative word \(\tilde{a}ka\) are also found in the language, though this is a topic for future studies.
8.4.2.4 ẽrom ‘where’

The particle ẽrom is often used to ask for information about location. As with the other *wh-question* words, it is used at the beginning of the clause. In example (8.53) the ablative clitic =ɾi is attached to the verb, creating the locative meaning of the point of origin of a movement. This interrogative form also functions as a demonstrative (as seen in section 4.8.2); however, note that when used as a *wh-question*, the notion of the spatial location of a referent and position (that the demonstrative signifies) does not matter in interrogatives.

(8.53) a. ẽrom=ɾi  kʷatín i=ko-a te?
    where=ABL snake 3S=ingest-THV FOC
    ‘From where did the snake start eating it?’

     b. ẽrom i=tʃok-a ne?
    where 3S=build-THV HYP
    ‘Where may he build it?’

8.5 Negative clauses

The particle nõm is used to negate the verb phrase, noun phrase or the entire clause. The particle nõm is used to negate the verb phrase, noun phrase or the entire clause. There is also the clitic =(e)rom, employed to negate phrases that it is attached to, where =erom is attached to nominal and verbal roots ended in consonants, with the exception of monosyllabic verbs that ends with -t that bear the clitic =om; =rom is attached to vowels.

In earlier studies, Aragon (2008:109) described the negative morpheme as an affix with the following allomorphs: -erom, -rom and -om. Examples below illustrate nouns and verbs in negative clauses.
NOUNS

(8.54) a. jāj=erom
tooth=NEG
‘It isn’t sharpened’

b. jē men=erom
DEM husband=NEG
‘This one doesn’t have a husband’

c. abatʃo apitep=erom
grandfather ear=NEG
‘Grandfather doesn’t hear’ (Aragon 2008:109)
Lit: ‘Grandfather doesn’t have ear’.

d. jẽɾom o=i-ko nom
DEM 1s=OBJ.NMLZ-ingest no
‘I have no food’

VERBS

(8.55) a. nōm et=om
no sleep=NEG
‘She doesn’t sleep’

b. akatiba nom at
tucum no get
‘Don’t get tucum (palm fiber (sp.))’

c. nōm ko=rom
no ingest=NEG
‘He doesn’t eat’

d. o=∅-mepit erek-kʷa nom kʷak tfop on
1s=R-son/daughter of woman speech-TR.PL no sound see 1s
‘I don’t hear (what) my daughter speaks’

e. orẽ=bō nom ek etfe
1s.EM=DAT no house DIFF
‘I am not home’

f. ki=tfet=om
1PL.INCL=leave=NEG
‘We don’t leave’
In addition, a particle *om* can stand alone as a predicate, with the meaning of ‘nothing’ or ‘there isn't (any), there is no.’

\[(8.56)\]  
\[
\text{kojöpe ebapa om tʃet-a […]}  
\text{night moon no leave-THV}  
\text{‘At night there isn't moon, it leaves […]’}
\]

### 8.6 Summary

In this chapter I have presented the types of predicates, which are divided into non-verbal and verbal predicates. Predicate complements were also described in this chapter. In addition, clause types were introduced, with a focus on interrogative and negative clauses. The language uses high intonation contours to differentiate polar questions from declarative clauses. For content questions, the language uses interrogative words, which can have oblique clitics attached, to inquire about different elements of the proposition. Negative clauses use the same negative particles or negative clitics found in verbal and noun phrases. Some topics about the structure of sentences in this language were identified for future investigation; for example, more research is needed on complex sentences and constituent order in different types of sentences, including issues of word order and topicalization/focalization.
CHAPTER 9
CONCLUDING REMARKS

This dissertation represents an investigation of different aspects of Akuntsú grammar. The main goal of this work was to present the principal phonological and morphosyntactic traits of this language in a descriptive grammar of Akuntsú. Some topics were not included in the analysis presented here (though they are the subject of ongoing and future studies), while other topics were only described briefly, and others were discussed in considerable detail. All the data provided in this study and their analysis are also intended to provide the foundation for continued research, including typological, historical and theoretical work. Also, it is intended for it to provide a basis for a more comprehensive grammar of this language in the future, by expanding the data and the analysis of the topics less thoroughly treated here or not included in this current study. The topics dealt with in this dissertation include:

i. the main phonological structures of the language;

ii. the morphosyntactic classification of nouns, processes of word formation and inflection;

iii. the morphosyntactic classification of verbs and their morphemes;

iv. the lexical classes of adjectives and adverbs, which are considered small classes, where adverbs are only syntactically (but not morphologically) different from
adjectives;

v. ideophones, particles, and interjections form independent classes of their own, where ideophones are very frequent in the language;

vi. an overview of clause types found in this language, and a description of the negative and interrogative clauses.

Akuntsú has several unusual traits of particular relevance to language typology generally and to linguistic theory, described in this dissertation. Some of them include how the drastic loss of their relatives and lack of children is reflected in the language structure of their language, in the use of kinship terms to refer to pets (parrot, macaw, guan, and owl, among others) (§4.10). Different from other related languages, Akuntsú has an alignment system that changes according to the animacy hierarchy, where the language may present a split ergative-absolutive system in some contexts and an ergative-absolutive coding which applies in other situations (§5.5).

The enhanced accessibility of information on this language will be valuable for scholars with various interests, but is especially of value to those interested in grammatical properties of languages generally, and in what Akuntsú grammar specifically can contribute to the understanding of typology and to our knowledge of what is possible in human languages. And as such, a project to further describe and document Akuntsú is underway to extend the corpus and knowledge of this language and culture, more in-depth exploration of the above-mentioned topics as well as new ones.

The main traits of the language are described in this dissertation. Some areas not included or which merit more detailed description includes: coordinate and subordinate clauses (focalization and topicalization in combining clauses), word-order, discourse and
lexicography, intonation in focus constructions (with focus on predicates and on constituents), and the nature of intransitive predicates, among others.

***
APPENDIX A

THE PHONOLOGY OF TUPARÍAN LANGUAGES

This brief typological survey presents phonological similarities and differences among Tuparían languages. This study utilizes different sources. Mekéns data are based on Galucio (2001); the Makuráp data are from Braga (1992, 2005), the Tuparí data from Caspar and Rodrigues (1957), Alves (2002, 2004), and Seki (2002), and finally, the Wayoró data are from Nogueira (2011). Some notes about Kampé language are also included in this appendix.

1.1 Consonantal phonemes

1.1.1 Stops

All the Tuparían languages, Akuntsú (Ak), Makuráp (Ma), Mekéns (Me), Tuparí (Tu) and Wayoró (Wa), have voiceless stop consonants /p, t, k/ that occur syllable-initially.

<table>
<thead>
<tr>
<th>Onset position</th>
<th>Ak</th>
<th>Ma</th>
<th>Me</th>
<th>Tu</th>
<th>Wa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initially</td>
<td>/po/</td>
<td>/pipāp/</td>
<td>/pera/</td>
<td>/patop/</td>
<td>/piri/</td>
</tr>
<tr>
<td></td>
<td>‘hand’</td>
<td>‘shadow’</td>
<td>‘macaw’</td>
<td>‘rat’</td>
<td>‘to pierce’</td>
</tr>
<tr>
<td>Medially</td>
<td>/apara/</td>
<td>/tʃepa/</td>
<td>/ma/pi/</td>
<td>/ape/</td>
<td>/apĩn/</td>
</tr>
<tr>
<td></td>
<td>‘banana’</td>
<td>‘forehead’</td>
<td>‘arrow’</td>
<td>‘peel’</td>
<td>‘cricket’</td>
</tr>
</tbody>
</table>
Initially /t/

Medially /tap/ ‘hair’

Initially /k/

Medially /akop/ ‘hot’

In syllable-final position, the stops are unreleased, as shown:

<table>
<thead>
<tr>
<th></th>
<th>Ak</th>
<th>Ma</th>
<th>Me</th>
<th>Tu</th>
<th>Wa</th>
</tr>
</thead>
<tbody>
<tr>
<td>[k̚]</td>
<td>[ɛk̚] ‘house’</td>
<td>[ɛk̚] ‘house’</td>
<td>[ɛk̚] ‘house’</td>
<td>[ɛk̚] ‘house’</td>
<td>[tak̚] ‘daughter’</td>
</tr>
</tbody>
</table>

With respect to the voiced stops, all these languages have voiced counterparts to the voiceless stops that occur syllable-initially: [b, d, g].

In Mekéns, voiced stops /b, g/ are analyzed as phonemes which never occur word-initially, but only intervocalically (Galucio 1994).

In Wayoró only /g/ is phonemic, though its "distribution is very restricted, occurring only in intervocalic position syllable-initially" (Nogueira 2011:48). In addition, this language also has a series of pre-nasalized consonants: [mb, nd, ñg, ñg̃] that occur before
oral vowels.

In Tuparí only /b/ is phonemic. See examples and distribution below. Note that the existence of [d] in Tuparí is not mentioned in Alves (2004) and according to this author, [g] only occurs at morpheme boundaries.

In Makuráp, the voiced allophones are surface forms of nasal consonants. The voiced stops occur word-initially adjacent to oral vowels, or syllable initially after nasal vowels. They vary with pre-nasalized stops.

<table>
<thead>
<tr>
<th>/b/</th>
<th>/abobô/</th>
<th>/tabisarâ/</th>
<th>/tobeko/</th>
<th>------</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>‘bird (sp.)’</td>
<td>‘chief’</td>
<td>‘bean’</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>/d/</th>
<th>/dap/</th>
<th>------</th>
<th>------</th>
<th>------</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>‘reportative’</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>/g/</th>
<th>/poga/</th>
<th>/pagop/</th>
<th>------</th>
<th>/paga/</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>‘tortoise (sp.)’</td>
<td>‘new’</td>
<td></td>
<td>‘to die/to get drunk’</td>
</tr>
</tbody>
</table>

In addition to the bilabial, alveolar and velar stops, there are also labiovelars. The labiovelars [kʷ, gʷ] are found in Akuntsú, Mekéns, and Wayoró. However, the contrast between /kʷ/ and /gʷ/ is phonemic only in Wayoró, while in Mekéns and Akuntsú there is /kʷ/ but not /gʷ/. Some illustrations of the forms are shown in table below.

<table>
<thead>
<tr>
<th>/kʷ/</th>
<th>/akʷa/</th>
<th>/ikʷaaj/</th>
<th>------</th>
<th>/ikʷaaj/</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>‘yam (sp.)’</td>
<td>‘tapir’</td>
<td></td>
<td>‘tapir’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>/gʷ/</th>
<th>------</th>
<th>------</th>
<th>------</th>
<th>/aragʷi/</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>‘peanut’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
There is also a surface glottal stop [ʔ] in all the languages. Whether or not this glottal stop is phonemic varies among the analyses. Tuparí is the only language that has two underlying glottals: /ʔ/ and /h/ (Alves 2004).

<table>
<thead>
<tr>
<th></th>
<th>Ak</th>
<th>Ma</th>
<th>Me</th>
<th>Tu</th>
<th>Wa</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ʔ/</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>/ʔa/ ‘fruit’</td>
<td>------</td>
</tr>
<tr>
<td>/h/</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>/h/at/ ‘snake’</td>
<td>------</td>
</tr>
</tbody>
</table>

### 1.1.2 Nasals

The nasals /m, n, ŋ/ are found in all the Tuparían languages. The only nasal consonant phoneme encountered word-finally is /ŋ/ (except in Makuráp and Wayoró, where /ŋ/ occurs syllable-initially before nasal vowels). Wayoró and Mekéns are the only languages that have /ŋʷ/. In addition, Wayoró has another nasal phoneme, the palatal /ɲ/.

<table>
<thead>
<tr>
<th>Onset</th>
<th>Ak</th>
<th>Ma</th>
<th>Me</th>
<th>Tu</th>
<th>Wa</th>
</tr>
</thead>
<tbody>
<tr>
<td>/m/</td>
<td>/mēt/ ‘inajá fruit’</td>
<td>/mār̥/ ‘to dry’</td>
<td>/ma/ ‘to make’</td>
<td>/ma/ ‘to plant’</td>
<td>/mē/ ‘postposition’</td>
</tr>
<tr>
<td></td>
<td>/amēna/ ‘knee’</td>
<td>/āmā/ ‘aunt’</td>
<td>/ameko/ ‘jaguar’</td>
<td>/amīō/ ‘vertex’</td>
<td>/te-mō-k-a-t/ ‘3-call-verblzr-t.v-past’</td>
</tr>
<tr>
<td>/n/</td>
<td>/nom/ ‘no’</td>
<td>/nejto/ ‘wind’</td>
<td>/norā/ ‘to help’</td>
<td>/niŋ̥/ ‘fish toxin’</td>
<td>/nō/ ‘other’</td>
</tr>
<tr>
<td></td>
<td>/anam/ ‘head’</td>
<td>/atena/ ‘to hunt’</td>
<td>/kanə/ ‘for that’</td>
<td>/anim/ ‘brain’</td>
<td>/anīŋ̥/ ‘worm’</td>
</tr>
</tbody>
</table>
### 1.1.3 Affricate and Fricatives

The affricate /tʃ/ is found in almost all Tuparían languages, with the exception of Mekéns. However, in Tuparí, Alves (2004) notes that this phoneme occurs with low frequency. With respect to the fricative, Tuparí and Mekéns are the only language with the fricative /s/ in their phonological inventories. Wayoró is the only language analyzed as having a phonemic bilabial fricative /β/. Examples are shown below:

<table>
<thead>
<tr>
<th>Onset position</th>
<th>Ak</th>
<th>Ma</th>
<th>Me</th>
<th>Tu</th>
<th>Wa</th>
</tr>
</thead>
<tbody>
<tr>
<td>/tʃ/</td>
<td>/tʃajakop/</td>
<td>/tʃepa/</td>
<td>/tyaʔi/</td>
<td>/tʃato/</td>
<td>/ndʒat/</td>
</tr>
<tr>
<td></td>
<td>‘ant (sp.)’</td>
<td>‘forehead’</td>
<td>‘flour’</td>
<td>‘to finish’</td>
<td>‘2pl’</td>
</tr>
<tr>
<td></td>
<td>/atʃi/</td>
<td>/atʃi/</td>
<td>/kotitʃa/</td>
<td>/atʃiæmka/</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘pain’</td>
<td>‘uncle’</td>
<td>‘fish sp.’</td>
<td>‘to sneeze’</td>
<td></td>
</tr>
<tr>
<td>/s/</td>
<td>---------</td>
<td>---------</td>
<td>/sin/</td>
<td>/sin/</td>
<td>---------</td>
</tr>
<tr>
<td></td>
<td>'sap'</td>
<td>'corn'</td>
<td>'smoke'</td>
<td>'smoke'</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>/asisi/</td>
<td>/awsa/</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>‘horn’</td>
<td>‘horn’</td>
<td></td>
</tr>
</tbody>
</table>
1.1.4 Flap

There is only one liquid phoneme in these languages, the flap /ɾ/. This phoneme only occurs in onset position word-medially, as illustrated below:

<table>
<thead>
<tr>
<th>/β/</th>
<th>-------</th>
<th>-------</th>
<th>-------</th>
<th>-------</th>
<th>/iβoj/</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ak</td>
<td>Ma</td>
<td>Me</td>
<td>Tu</td>
<td>Wa</td>
</tr>
<tr>
<td>/ɾ/</td>
<td>/arãmãra/</td>
<td>/têrek/</td>
<td>/pera/</td>
<td>/jôrô/</td>
<td>/ŋgara/</td>
</tr>
<tr>
<td></td>
<td>‘woman’</td>
<td>‘light’</td>
<td>‘macaw’</td>
<td>‘fruit sp.’</td>
<td>‘grasshopper’</td>
</tr>
</tbody>
</table>

1.1.5 Approximants/glides

There are two glides in the Tuparí, Mekêns, Makuráp and Akuntsú /w/ and /j/. In Wayoró, there is none.

<table>
<thead>
<tr>
<th>/w/</th>
<th>/j/</th>
<th>Ak</th>
<th>Ma</th>
<th>Me</th>
<th>Tu</th>
<th>Wa</th>
</tr>
</thead>
<tbody>
<tr>
<td>/w/</td>
<td>/j/</td>
<td>/wen/</td>
<td>/wera/</td>
<td>/sawã/</td>
<td>/wao/</td>
<td>/wao/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘to finish’</td>
<td>‘to pinch’</td>
<td>‘to chew’</td>
<td>‘potato’</td>
<td>‘potato’</td>
</tr>
<tr>
<td>/paw/</td>
<td>/jê/</td>
<td>/paw/</td>
<td>/awak/</td>
<td>/pawat/</td>
<td>/awsa/</td>
<td>/awsa/</td>
</tr>
<tr>
<td>‘wind’</td>
<td>‘green’</td>
<td>‘many’</td>
<td>‘to row’</td>
<td>‘horn’</td>
<td>‘horn’</td>
<td>‘horn’</td>
</tr>
<tr>
<td>/bâj/</td>
<td>/jam/</td>
<td>/bâj/</td>
<td>/nejto/</td>
<td>/soboj/</td>
<td>/maj/</td>
<td>/maj/</td>
</tr>
<tr>
<td>‘buriti palm fiber’</td>
<td>‘to splash’</td>
<td>‘wind’</td>
<td>‘aux.seated’</td>
<td>‘stool’</td>
<td>‘manioc’</td>
<td>‘manioc’</td>
</tr>
</tbody>
</table>
1.2 Vocalic phonemes

The Tuparían languages are very similar with respect to their vowel systems. All of them have a total of five underlying oral vowels and five nasal vowels; however, they differ with respect to vowel length. Wayoró and Mekéns are analyzed as having underlyingly long vowels. Nogueira (2011) opted to insert in the vocalic chart /ɛ/ rather than /e/. The tables below indicate the phonemes for each Tuparí language.

<table>
<thead>
<tr>
<th></th>
<th>Ak</th>
<th>Ma</th>
<th>Me</th>
<th>Tu</th>
<th>Wa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>/i/</td>
<td>/i/</td>
<td>/i:/</td>
<td>/i:/</td>
<td>/i:/</td>
</tr>
<tr>
<td>Mid</td>
<td>/e/</td>
<td>/e/</td>
<td>/e:/</td>
<td>/e:/</td>
<td>/e:/</td>
</tr>
<tr>
<td>Central</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>/i/</td>
<td>/i/</td>
<td>/i:/</td>
<td>/i:/</td>
<td>/i:/</td>
</tr>
<tr>
<td>Low</td>
<td>/a/</td>
<td>/a/</td>
<td>/a:/</td>
<td>/a:/</td>
<td>/a:/</td>
</tr>
<tr>
<td>Back</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid</td>
<td>/o/</td>
<td>/o/</td>
<td>/o:/</td>
<td>/o:/</td>
<td>/o:/</td>
</tr>
</tbody>
</table>

1.3 Phonetic notes on Kampé (Sik*eriat)

In this section, I present some phonetic notes on the Kampé language, spoken by only one elderly man. After living for many years in Mekéns Indigenous Area, located in Rondônia (Brazil), this man moved to Rio Branco Indigenous Area (also in Rondônia) to stay with his niece (daughter of a Kampé father and a Tuparí mother). The Kampé speaker was born near the banks of the Tanaru river (east side of Rondônia). When he was young, he and his family moved to the River Verde, a place where they met with the Mekéns people,
of whom they were very afraid in the past. After the death of his people, he claims that nowadays he is the only sik'eriati (group of Toucans) alive. Galucio (2001) states that the languages spoken by the Kampé and Mekéns people are mutually intelligible, and she affirms that aside from lexical differences, there are also "a few syntactic differences..." (2001:19), and that further investigation needs to be done to assess the degree of kinship of Kampé and Mekéns. Galucio shows that in addition to Kampé and Mekéns, there are two other groups living in the Mekéns Indigenous Area: the Guarategayat and Guaratira, whose languages, according to Galucio (2001), are dialects of Mekéns.

In Kampé, there is a set of surface stops [p, b, t, k, g], as shown below. Note that [d] was not attested in the data available.

(1) a. [pe] ‘way’
   b. [tabit’] ‘garden’
   c. [kiakop’] ‘sun’
   d. [pakuri] ‘moon’
   e. [puga] ‘tortoise’
   f. [tsebapi] ‘face’
   g. [gie] ‘one’
   h. [kibeit’] ‘calf’

There is a set of voiceless unreleased stops, which occur syllable-finally:

(2) a. [kit’kip’] ‘neck’
   b. [kem ki] ‘breast milk’
   c. [kibek’] ‘papaya’
   d. [ek‘it’] ‘honey’
   e. [kibakap’] ‘urucu (Bixa orellana)’
   f. [ek’] ‘house’
g. [pitˈsik] ‘cold’
h. [utatˈkat] ‘firewood’
i. [arəpɛ] ‘embaúba tree (Cecropia angustifolia)’

There is a labiovelar [kʷ] found syllable-intially and [gʷ] word-initially:

(3) a. [kʷaritsa] ~ [gʷaritsa] ‘bat’
b. [kʷajtˈpe] ~ [gʷajtˈpe] ‘sky’
c. [akʷa] ‘yam’
d. [atsoa kʷak] ‘thunder’
e. [kʷaku] ~ [gʷaku] ‘sweet potato’

Examples of words with glottal stops [ʔ] were found intervocalically, as seen below:

(4) a. [kʷaʔi] ‘stone’
b. [kʷaʔê] ‘pan’
c. [tseʔi] ‘his/her belly’
d. [kʷatsaʔe] ‘hummingbird’

The set of nasals found among the data collected are [m, n], and [ŋ] syllable-initially, as exemplified below:

(5) a. [konĩpu] ‘snake’
b. [kanã] ‘brazil nut’
c. [tsanoa] ‘its heart’
d. [kumãta atsu] ‘bean (big one)’
e. [mãpi kaba] ‘bamboo (of the arrow)’
f. [kʷamakop] ‘mountain hen (Tinamus major)’
h. [piŋagã] ‘heel’
i. [anĩŋ] ‘earthworm’
In addition, there are sibilant consonants [ts, s] in this language, as shown in the examples; they occur at syllable-initial position.

(6) a. [tsakʷat] ‘spine’
   b. [atsuap] ‘rain’
   c. [batse] ‘jatobá (*Hymenaea courbaril*)’
   d. [aparatsu] ‘banana (long one)’
   e. [tsira] ‘aricuri palm (*Attalea phalerata*)’
   f. [batsup] ‘rat’
   g. [atsitsi] ‘corn’
   h. [piritsa] ‘traíra (tiger fish)’
   i. [sakirap] ‘spider-monkey’
   j. [itsi] ‘deer’
   k. [siga] ‘genipap’
   l. [tapsiri] ‘manioc’

The consonant [ɾ] was found syllable-initially in word-medial position only.

(7) a. [paruparu] ‘star’
   b. [kɛɛɾɛɾu] ‘fish (sp.)’
   c. [kwiri] ‘açai’
   d. [ururu] ‘cotton’
   e. [tapiru] ‘peach-palm’
   f. [akara] ‘arecaceae’
   g. [ira] ‘atta’

The approximants [w, j] were encountered syllable-initially and finally, as shown below:

(8) a. [kibakaj] ‘land’
   b. [piraj] ‘rubber tree’
   c. [a:j] ‘cajá (*Spondias dulcis*)’
d. [kajtu] ‘butterfly (sp.)’
e. [weremi] ‘fly’
f. [puwpwuwa] ‘owl’
g. [piwapɛ] ‘toenail’
h. [jũ] ‘tongue’

With regard to the vowels, no innovations were found in its vocalic inventory, i.e., there were not any unusual vowels as compared to the set of vowels found for other Tuparí languages.
APPENDIX B
SAMPLE OF TEXTS

The following texts are examples of short narratives that were selected to provide elements that illustrate the daily life of the Akuntsú people, such as the preparation of fermented drink by the Akuntsú women (TEXT 1), with some pictures of this process shown in appendix C; and a personal narrative of the traumatic past alive in their memories, which also gives some examples of kinship terminology (TEXT 2). In text 2, some selected parts of the whole recorded narrative have not been included here because it is a very long text.

TEXT 1 - THE PREPARATION OF THE FERMENTED DRINK

Speaker: Tʃaruj
Gender: Female
Context/notes: Tʃaruj and Aramira were preparing fermented drink from peach-palm.\(^{160}\)
Recorded date: January 19th 2007 (32:29)

\[\text{JAN07-1A-TX-001}\]
\[
\begin{align*}
on & \text{i=jõmaj} & \text{tum-tum} & \text{ko-a} & \text{ko} & \text{ko} \\
1s & 3s&=knead & IDEO-IDEO & \text{ingest-THV} & \text{ingest} & \text{ingest} \\
& & & & & & \text{‘I knead it, I pound, I take it in many times’}
\end{align*}
\]

\[\text{JAN07-1A-TX-002}\]
\[
\begin{align*}
i=tʃāw & \text{ma} & \text{otfe} & i=tʃāw & i=tʃāw & \text{kia} & \text{ma} \\
3s&=chew & \text{keep/spill/put} & 1PL.EXCL & 3s&=chew & 3s=chew \text{ peach.palm keep/spill/put} \\
& & & & & & \text{‘I chew it and I spill (the chewed fruit inside the pan), we chew it, we chew it and we spill the peach palm’}
\end{align*}
\]

\(^{160}\) \textit{Bactris gasipaes}. 

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There is water, I take water, plenty of water goes here.

The liquid, grandmother kneads the kneading of water and spills (the water).

You knead and spill it here.

Grandmother kneads and spills it as usual.

She makes chicha (fermented drink) over and over.

You, my daughter, do not make chicha.

I chew it many times that way, that way.

I chew it many times that way.

And I don't vomit, I don't vomit.
TEXT 2 - KONIBÚ (PERSONAL NARRATIVE)

Speaker: Konibú
Gender: Male
Context/notes: Konibú narrates part of his past, talking about his relatives.
Recorded date: February 2004 (54:05)

FEB04-KN-MD04-001

$o=ø$-tojêpit $babakop$ $a$
1S=R-granddaughter Babakop exist
‘There was Babakop (proper name), my granddaughter’

FEB04-KN-MD04-002

kip $doa$ $č$ $tʃe$ $doo$ $č$ $tʃe$ $doo$ $puru-ru-ru$
'The tree killed, that (the tree) came killing (he shows with gestures how the tree fell)’

FEB04-KN-MD04-003

$kani$ $tʃaruj$ $o-mepit=eri$
child $tʃaruj$ R-son/daughter of woman=ABL IDEO-RED $tʃaruj=eri$
‘Because of Tʃaruj's daughter, the child, there was crying from Tʃaruj’

FEB04-KN-MD04-004

tʃokin $petkop$ $tʃaruj$
small alone Tʃaruj
‘Tʃaruj was small, alone’

FEB04-KN-MD04-005

$maʃ-a$ $k’ak$ $tʃop$ $č-č$ $āka$ $č-č-č$
tell-THV sound see IDEO-RED that.way IDEO-RED-RED
‘See what tells, that way’

FEB04-KN-MD04-006

$tʃokeee=na$ $te=ko$ $mepit$ $te$ $āka$
big=ESS 3COR=Mov. son/daughter of woman FOC that.way
‘(She) was getting bigger, the daughter was like that’

---

161 Kani is a Kanoê word, meaning ‘child.’
That caught the daughter, Indian tells

Woman no, woman, the non-Indian shot

(They) caught the men, that way, the river's path, the non-Indian shot

‘The Snake (proper name) cried, I don’t’

‘Many Akuntsú and my older brother died’

‘Akuntsú, that way, my older brother, that way’

Shaman is sniffing this’ (he simulates that he was sniffing tobacco))

‘I see my brother-in-law as usual, far away, that way’

According to Konibú, one of the effects of sniffing lots of snuff is the possibility of seeing spirits.
akütfu aparapia dow dow-a
Akuntsú non.Indian IDEO IDEO-THV
‘Akuntsú, the non-Indian shot, they shot’

boiw\textsuperscript{163}-boiw-boiw-boiw wen-a
die-RED-RED-RED finish-THV
‘They died, died, died, died, it is over’

\textsuperscript{163} This is a Portuguese word morreu ‘(he/she) died’
FEB04-Kn-MD04-024

{o=ø-kojtpet} ururu  ø-mepit  aw-aw  aramira
1s=R-older sister  Ururu  R-son/daughter.of.woman  baby/child  woman
‘My older sister, Ururu’s son, the child, the woman (pointing to the people)’

FEB04-Kn-MD04-02

{i=ø-ti}    te ururu  jêrom kojtpet
3s=R-mother foc  Ururu  DEM  older sister
‘His mother is Ururu, there, it is the older sister’

FEB04-Kn-MD04-025

{o=ø-kojtpet}    o=ø-majkit  [...]
1s=R-older sister  1s=R-niece
‘My older sister, my niece (pointing to two different people) [...]’
APPENDIX C
PICTURES

Picture 1 - One the left, Koniibú was drying tobacco's leaf for preparation of snuff; on the right, a picture of marico basket, tucum fiber basket (2013). 164

Picture 2 - Labial labret and nasal labret (2014)

164 All the pictures were taken by the author of this study.

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**Picture 3** - Some of the steps of the preparation of Urucu, by Ururu (May 2009).

**Picture 4** - The left picture shows one of the types of projectile points (2004) and the right picture illustrates roasted grubs ready to be eaten (2007).
Picture 5 - Some of the steps described in TEXT 1 (APPENDIX B) - preparation of fermented drink (2007).
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