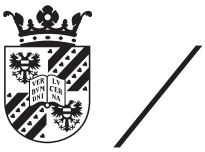
Case and agreement in Panará



university of groningen

faculty of arts

CLCG

Published by

LOT
Trans 10
3512 JK Utrecht
The Netherlands

phone: +31 30 253 6111
e-mail: lot@uu.nl
http://www.lotschool.nl

Cover illustration: Photograph taken in Nãsepotiti by B. Bardagil-Mas.

ISBN: 978-94-6093-296-0
NUR: 616

rijksuniversiteit
groningen

Case and agreement in Panará

Naamval en congruentie in het Panará

Proefschrift

ter verkrijging van de graad van doctor aan de
Rijksuniversiteit Groningen
op gezag van de
Rector Magnificus, Prof. E. Sterken,
en volgens besluit van het College voor Promoties.

De openbare verdediging zal plaatsvinden op

donderdag 20 september 2018 om 11.00 uur

door

Bernat Bardagil-Mas

geboren 26 januari 1984
te Vic, Catalonië

Promotores
Prof. C.J.W. Zwart
Prof. F. Queixalós

Beoordelingscommissie
Prof. A.R. Deal
Prof. J. Hoeksema
Prof. W.L.M. Wetzels

que siguin moltes les matinades

Contents

Acknowledgements

This book is about the Panará language. As a linguist, I consider myself extremely lucky. Not only is Panará a fascinating language, but it is spoken by beautiful people. To all the Panará I am extremely thankful, *jy ra inkin pytinsi*. Special thanks go to my teacher and friend Perankô Panará, my adoptive family, and the many people who took the time to talk to me and help me understand their language, too numerous to name individually.

I would like to express my deepest gratitude to my promotors Jan-Wouter Zwart and Francesc Queixalós. Jan-Wouter has supervised my research with encouragement and support beyond what I could have reasonably expected. His feedback and discussion have been integral to my growth both as a linguist and as an academic. Francesc supervised me through my MA in Paris VII–Diderot, and saw me off to the field with encouragement and good advice (*modèstia, prudència i bon humor amb els indis*). I was fortunate to count with his input also in my PhD.

I am also thankful to my assessment committee, Amy Rose Deal, Jack Hoeksema and Leo Wetzels not only for reading my manuscript and accepting to approve it, but also for their feedback.

In Brazil, I was lucky to find many people who have supported me along the way. I am indebted to Luciana Storto from the University of São Paulo for not only providing me with institutional affiliation, but also for her constant support and feedback. In Belém, Denny Moore provided endless advice and guidance in the many aspects of Amazonian fieldwork, including access to his safehouse for lost linguists. Bruna Franchetto got me in touch with the Panará in the first place, and she saw me off to my first visit to Nãsepotiti. My gratitude also extends to Hein van der Voort, Joshua Birchall, Rose Costa, Karol Obert, Filomena Sandalo, Kris Stenzel, Suzi Lima, Bruna Fernanda Lima.

I would like to especially thank the Instituto Socioambiental, in particular André Villas Bôas, Paulo Junqueira and the Xingu team. Finally, I would like to thank the staff at FUNAI and CNPq who helped with my authorization processes.

Being a Panará researcher allowed me to join the select club of Panará scholars. As it turns out, all of them are nice generous people. Luciana Dourado not only wrote the first scholarly work on the Panará language, but she also sent me cherished advice and material. My relentless fieldwork companion Myriam Lapierre *Kjêpyti* was an invaluable support, and most of my current understanding of the sounds of Panará exists thanks to her. I would also like to thank the anthropologists Steve Schwartzmann *Sejn*, Elizabeth Ewart *Kârânpô*, and especially Fabiano Bechelany *Kjãsôti* and João Paulo Denófrio *Sâkjo*, with whom I shared different periods in the field and who I now call my friends.

In 2015 and 2016 I spent some time as a visiting researcher at the Department of Linguistics of the University of Ottawa. Andrés Salanova, from whom I first heard about the Panará in 2011, was my sponsor there and I am thankful to him. I would also like to thank Ana Arregui, Ian MacKay and Dennis Ott for welcoming me in their courses and for the fruitful discussion. I extend my gratitude to professors Marc Brunelle, Éric Mathieu and María-Luisa Rivero, and to graduate students Julie Barette, Jérémie Beauchamp, Félix Desmeules-Trudel, Brandon Fry, Jean-Christophe Leclerc, Claire Lesage, Paul Melchin, Basile Roussel, Nova Starr, Suzanne Robillard, Vesela Simeonova and Ray Therrien.

In 2017 I spent a few months at the Department of linguistics of the University of California, Berkeley. I am indebted to Lev Michael, who sponsored me as a visiting student researcher and took good care of me while I was there, and to Andrew Garrett, the department chair. Berkeley is a heaven for fieldworkers interested in formal linguistics, and both faculty members and students made me feel at home right away. I especially thank Chris Beier, Amy Rose Deal, Larry Hyman, Peter Jenks and Line Mikkelsen. I would like to thank graduate students Nico Baier, Ginny Dawson, Karee Garvin, Erik Maier, Nick Rolle, Katie Sardinha and Tessa Scott for their discussions, with a special mention to the members of the Amazonianist underground Emily Clem, Myriam Lapierre, Kelsey Neely, Zachary O'Hagan, Konrad Rybka and Amalia Skilton. Special thanks to Belén Flores, a lifesaver.

During these four years, my research has benefited greatly from conversations and discussions with many linguists. I would like to thank David Adger, María Arche, Sjef Barbiers, Jessica Coon, Marcel den Dikken, Pattie Epps,

Spike Gildea, Suzi Lima, Andrew Nevins, Rafael Nonato, Omer Preminger, Luigi Rizzi, Susan Rothstein, and Hedde Zeijlstra, as well as the network of Dutch syntacticians and Americanists.

Catalans say that the small jar has the best marmalade, and in the course of the four years as a doctoral candidate in Groningen I have been lucky to be a part of a small yet excellent syntax research group. I am grateful to Jan-Wouter Zwart, Mark de Vries, Jack Hoeksema, James Griffiths, Güliz Güneş, Marlies van Kluck, Craig Sailor, and especially to Charlotte Lindenbergh and Pavel Rudnev in our OBS23 syntax team. Over the course of these four years, many other people contributed to make Groningen a great location intellectually and socially: Eric Cezne, Juliana Feiden, Bart Hollerbrandse, Angeliek van Hout, Nanna Hilton, Mónica Lobato, Ryssa Moffat, Aida Salčić, Gaël Schaeffer, Lucas Seuren, Alejandra Wah. A special mention to Black & Bloom for great coffee and the MARS Vechtschool for great fencing.

Finally, my friends back home or spread out in the world and my family deserve my deepest gratitude, for their support and their patience with my linguistic obsessions and the long absences. Especially my parents Miquel and Montserrat and my sister Blanca, my number one supporters.

Fieldwork research in remote locations is always an additional pressure on a student's budget. Important parts of the research presented in this book were made possible by several organizations, to which I am very grateful: the Endangered Languages Documentation Programme (grant SG0398), the Jacobs Fund, and the Endangered Languages Fund.

Abbreviations

Example source

el	elicitation
fb	social media texting
obs	conversation or spontaneous utterance
txt	recorded text (legend, narrative, conversation, speech)

Interlinear glosses

1	first person	AUX	auxiliary
2	second person	CAUS	causative
3	third person	CLF	classifier
ABL	ablative	CNJ	conjunction
ABS	absolutive	COM	comitative
ACC	accusative	COMPL	completive
ACT	active	CONC	concatenation
ADES	adessive	COND	conditional
ADRE	addressee	DAT	dative
ALL	allative	DECL	declarative
AOR	aorist	DEF	definite
AP	antipassive	DEM	demonstrative
APPL	applicative	DES	desiderative
ART	article	DET	determiner
ASP	aspect	DIM	diminutive
AUG	augmentative	DIR	directional

DISTR	distributive	NADRE	non-addressee
DU	dual	NEG	negative
EMPH	emphasis	NF	non finite
ERG	ergative	NFUT	non future
ESS	essive	NMLZ	nominalizer
EV	evidential	NOM	nominative
EXCL	exclusive	NSPK	non-speaker
EXPL	expletive	PAU	paucal
FACT	factual	PER	perlative
FIN	final	PL	plural
FOC	focus	PLAC	pluractional
FUT	future	POSS	possessive
GEN	genitive	PRF	perfect
HAB	habitual	PRN	pronoun
HON	honorific	PROSP	prospective
HTO	heterophoric	PRS	present
IMP	imperative	PST	past
IMPRS	impersonal	PURP	purposive
INCL	inclusive	Q	interrogative
INDF	indefinite	REAL	realis
INES	inessive	REFL	reflexive
INF	infinitive	SG	singular
INS	instrumental	SH	short form
INTR	intransitive	SPK	speaker
IRR	irrealis	STV	stative
ITER	iterative	SUBJ	subjunctive
LG	long form	TMP	temporal
LOC	locative	TOP	topic
LOC-IN	loco-inessive	TR	transitive
MAL	malefactive	TRSL	translative

CHAPTER 1

Introduction

> My first contact with Brazilian Indians was in 1961. I was on an expedition to explore the headwaters of the Iriri river in the forests of central Brazil. (...) Before penetrating this unexplored region, we consulted two legendary figures of the Indian Protection Service—Orlando Villas-Bôas and Francisco Meirelles. Both assured us that no Indians lived in the Cachimbo hills which we would be penetrating.
>
> They were wrong: an uncontacted tribe laid an ambush on one of the paths we had cut into the forest and killed the expedition's leader, my friend Richard Mason. We brought out arrows and clubs used in the attack. Other Indians identified these as belonging to a tribe called Kreen-Akrore. It took many expeditions and ten years of attraction-campaigns before the Villas Boas brothers finally made contact with the Kreen-Akrore. It was my first glimpse of the Indian Service at work, and my first realisation that unknown tribes were still being contacted and conquered on the Amazon frontiers of Brazil.
>
> Hemming 1978, *Red Gold.*

The indigenous nation referred to by John Hemming as Kreen-Akrore is today called Panará, from their autonym *panãra* ("those that are"), and this book is the culmination of four years dedicated to the study of their language. Panará is a language that belongs to the Jê family, a group of languages currently spoken in central and south-eastern Brazil. On the one hand, Panará presents some typically Jê traits: the lexical correspondences, phonemic inventories, phonological processes and general morphological profile all have the characteristics that one would expect in any Jê language.

On the other hand, the constituent order, case marking patterns and verbal morphology are radically different from what we find elsewhere in the Jê family. The present dissertation is an attempt to provide a thorough description of the phenomena at hand, as well as to discuss their place in current linguistic theory.

Following this introductory chapter, the book is divided into two sections. The first lays out a description of Panará language, covering a general overview of the grammar (ch. 2), the exponence of case in Jê languages in general and Panará in particular (ch. 3), and oblique participants (ch. 4). The second section shifts the focus to a generative analysis of grammatical case (ch. 5), cross-reference morphology and agreement (ch. 6). Finally, I summarize the problems and insights uncovered throughout this dissertation, and discuss further directions to investigate (ch. 7).

1.1 The Panará people

Between the *cerrado* tropical savanna in central Brazil's plateaus and the Amazonian rainforest further to the west, there is a transitional terrain sometimes known as moist forest. This land of deep forest and meandering rivers and creeks is the home of the Panará.

Brazilian moist forests are characterized for having thick vegetation, an ondulating urography and for being drier than the rainforests to the west. This is the edge of the Amazon basin, with the Xingu river being its easternmost tributary. The Panará Indigenous Land, where the 500-600 Panará people live today, is an area located between the towns of Altamira (Pará) and Guarantã do Norte (Mato Grosso), spanning almost 500,000 hectares of forest in what is left of their pre-contact territory (map 1).

Map 1. Location of the Panará Indigenous Land.
Source: Instituto Socioambiental. Used with permission.

The Panará were contacted in 1973 in the region between the Peixoto[1] and Iriri[2] rivers. The Panará's old land is situated at the north of a flatland that extends south of the Cachimbo mountain range (*serra do Cachimbo*) all the way into the Pantanal wetlands, and roughly between the Tocantins to the east and north-central Rondônia to the west. This is the Mato Grosso Plateau

1. A tributary of the Tapajós basin.
2. A tributary of the Xingu.

(*planalto do Mato Grosso*). Situated in the Amazon basin, between its easternmost tributaries, the landscape is quite different from what we usually think of as Amazonian jungle.

The Mato Grosso Plateau or the Central Plateau was home to a series of indigenous Brazilian groups, such as the Xavante, the Arara, the Juruna, or the Munduruku, as documented by explorers like Nimuendajú (1952) or Ehrenreich (1891). Panará presence in the 20th century is documented as south as the city of Colíder, stretching down from the Cachimbo mountain range between the states of Pará and Mato Grosso (Schwartzman 1988).

The modern Panará

Today's Panará society is undeniably shaped by the conditions that accompanied contact in the 1970s. Both the contact process itself and its aftermath led to the introduction of infectious diseases from the Brazilian population to which the Panará had no immunity. These diseases rapidly decimated the Panará population:

> "The Panará are also the survivors of a holocaust. Between 1968 and 1973, between 80 and 90% of the population died of introduced epidemic diseases, originating with the road crews opening the 163 highway that cut through their traditional land" (Schwartzman 1988: 1).

Brazil first found out about the Panará as a result of the 1961 incident, recounted by John Hemming at the beginning of this chapter, in which the young British explorer Richard Mason was killed by the arrows of an indigenous group that was unknown to exist in the region. According to Akââ, a Panará elder and prominent leader in the community, the group of Panará warriors heard the noise of the stranger's trousers rubbing as he was walking alone. As was usual after killing enemies, the group left war clubs and arrows around the body.

A few years later, in 1967, a group of Panará approached the Brazilian government's military base on the Cachimbo range. Their goal was to meet the airplanes that they had seen and followed there, whom the Panará believed to be living beings. The group, which reportedly included women and was by all accounts not hostile, was believed to be a war party and generated a state of nation-wide panic. As soon as the Panará were spotted walking on the base's landing strip, the commander ordered the soldiers to open fire above the heads of the "wild indians" and a plane that was close to landing flew low over the

Panará, in an attempt to scare them off (Schwartzman 1988: 290). The attempt was successful and the terrified Panará ran away. Terror also spread to the whole of Brazil as the news of an attack of wild uncontacted indians became known, and it worsened when a military plane that had left the Cachimbo base to bring reinforcements crashed in the jungle after it got lost and ran out of fuel, causing 10 dead.

That same year the Panará saw yet one more consequence of the advancing frontier. A group of Kayapó—speakers of Mẽbêngôkre, another Jê language (§3.3.1)—attacked the village of Sõkârãsâ armed with firearms that had been given to them by a missionary. The people in Sõkârãsâ were massacred, at least 26 died (Schwartzman 1995: 69), and the rest fled to nearby villages.

When the legendary indigenist brothers Orlando and Cláudio Villas-Bôas, at the head of Funai,[3] set out to establish peaceful contact with the uncontacted wild indians in 1968, the Panará retreated from the airplanes flying over their villages and the expedition group marching into Panará land. The impression left on the Panará after the Cachimbo incident was that those foreigners were aggressive and frightening (Schwartzman 1988: 291).

The first contact expedition was called off in 1969, and a second one started in 1972, when construction of the BR-163 Cuiabá-Santarém highway was already penetrating Panará land. The expedition set up an attraction camp and started leaving presents in the forest, such as knives, pans and beads (Ewart 2000: 67). In February 1973 the Villas-Bôas expedition finally came face to face with the Panará.

What followed was an abruptly sudden contact on the part of the Panará with Brazilian society: the expedition members, construction workers building the highway and, later, drivers once the highway opened. The Panará population, estimated at 600-700 pre-contact, dropped to a low of 67 people in 1975 (Schwartzman 1995). After the government started selling the land near the new road for colonization, a questioned decision was made by the Villas-Bôas to remove the highly ill and demoralized Panará from their land. The decision was justified by the impending advance of loggers and gold prospectors. The Panará were resettled in the Xingu Indigenous Park, an enormous protected territory in central Mato Grosso spanning 2,642,003 hectares, which already housed a dozen of indigenous nations. Created in 1961, the Xingu Indigenous Park was the lifetime work of the Villas-Bôas, where they had relocated other indigenous groups during the previous decades of their

3. Portuguese acronym for the National Indian Foundation, *Fundação Nacional do Índio*, called *Serviço de Proteção ao Índio* (SPI) from its creation in 1910 until 1967.

indigenista work.

Forced to live initially with their Kayapó enemies, the Panará never quite settled in the Xingu. They moved villages several times, from the Kayapó to the Kĩsêdjê, and finally built their own village once they started to recover demographically. They still changed the location of the Panará village repeatedly, always looking for a good environment for their traditional crops, which did not fare well in the wet Xingu area. After a lengthy search with the support of anthropologist Steve Schwartzman and what would become the Instituto Socioambiental, the Panará were successful in demarcating a piece of their traditional land that, 20 years after the Panará were removed from their homeland, was still intact: today's Panará Indigenous Land, a property of the Federal Government of Brazil with exclusive use of the Panará people. They moved back to their traditional lands in the mid-1990s and founded the village of Nãsepotiti.

The Panará have been living in the demarcated Panará Indigenous Land for just over 20 years now. They have progressively integrated aspects of the monetary economy practised by the Brazilian settlers that live in the neighbouring towns, but their everyday subsistence is based on the hunting and the slash-and-burn agriculture that were always a part of their lives. They hunt peccaries, tapir, paca, coati and deer. They plant several types of bananas, peanuts, potatoes and manioc. Brazilian tools have displaced some traditional ones, and shotguns, machetes, metal axes and hoes are now as common as the bows and arrows that they still use for catching fish and small game, like water turtles, monkeys or birds. With the introduction of fishing hooks and canoes, an essential part of survival in the more fluvial Xingu area, the Panará have also increased their reliance on fishing and river navigation. Panará culture has also been the object of a fruitful succession of anthropological investigations (Heelas 1979; Schwartzman 1988; Ewart 2000; Bechelany 2017).

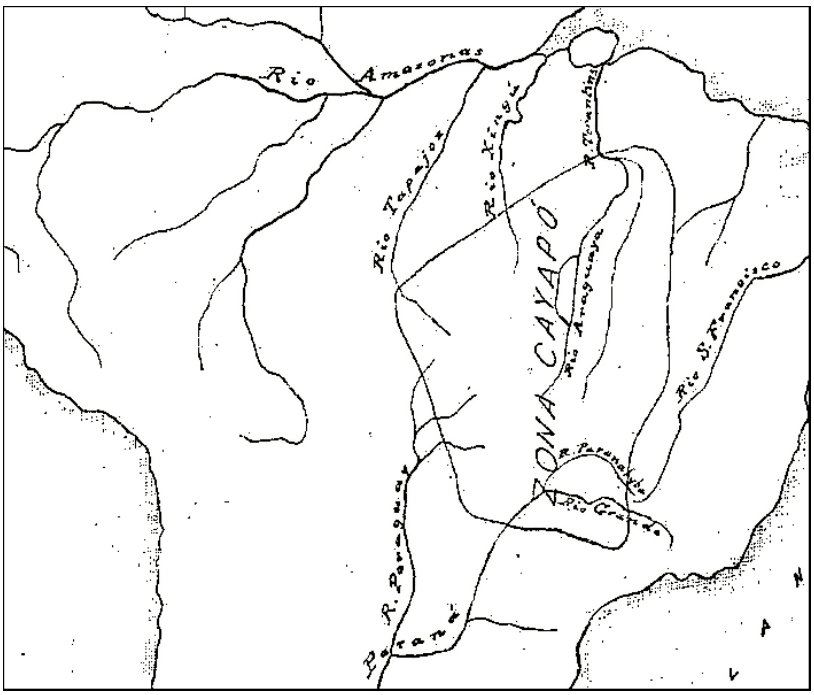
There is however an evident tension in the apparent balance of today's Panará society. Pressure from the surrounding Brazilian population manifests itself in dozens of factors, both big and small. River pollution, invasion of the demarcated land by gold prospectors and illegal fishing are an anvil to the hammer of a nation-wide legislative tendency towards stripping Brazilian indigenous populations of the few rights that had been conquered. A more emotional issue is the progressive loss the community's elders, an already small generation of Panará that grew up in a pre-contact society and are regarded as the custodians of Panará knowledge, including their language.

In spite of the challenges that they face on multiple fronts, the Panará have

bounced back with a surprising duress from the low point of contact and its dark consequences. Above all, they remain a vital and *swakin* people.[4]

The southern Cayapó

Before mainstream Brazilian society learned about the existence of the people that today are known as Panará, this indigenous nation had in a sense already gone through a lengthy and turbulent contact process that began centuries earlier, with the Portuguese colonization of Brazil. They had been known under the name of Cayapó (map 2), initially, and later as Southern Cayapó to distinguish them from the Northern Cayapó, today's Mẽbêngôkre-speaking Kayapo. The term *cayapó* is considered an exonym of Tupian origin (Turner 1992: 311), its etymology being related to *kaya* "monkey." For the sake of clarity, when referring to the Panará-speaking group I write the term with the older *cayapó* spelling, in accordance with its use as proposed by Giraldin (1997).



Map 2. From Barbosa (1918).

After the Panará were contacted in 1973, Richard Heelas carried out a period of anthropological fieldwork among them. He first suspected of a connection

4. /swa-kiŋ/ – tooth-good – 'happy, cheerful.'

between the Panará and the southern Cayapó, believed to be extinct since the beginning of the 20th century (Lowie 1946). Heelas observed some vocabulary coincidences between the language of the Panará and southern Cayapó words collected by travellers Auguste Saint-Hilaire (1830–51) and John E. Pohl (1832–37) in the early 19th century (Heelas 1979: 2). This hypothesis was followed by Schwartzman (1988) with a focus on cultural practices, and further supported by Rodrigues & Dourado (1993) on the basis of a more systematic analysis of word lists.

The southern Cayapó were first encountered by Portuguese colonists further south-east of the present location of the Panará Indigenous Land. There are documented battles between slave-raiding Portuguese expeditions in 1608 and 1612 in an area that today is the north of the state of São Paulo. Mentions of warlike southern Cayapó persist throughout the 17th and 18th centuries, becoming a serious problem for both mining and slave-raiding, two pillars of the colonial economy. Several raids of private military units known as *bandeiras* were sent with the purpose of eradicating the hostile indian threat.

At the end of the 18th century some southern Cayapó were convinced to settle in state-run villages called *aldeamentos*. Within 50 years the southern Cayapó had mostly perished or, dissatisfied with the living conditions in the settlements, had gone back into the forests (Ewart 2000; Giraldin 1997). During the 19th century accounts of encounters with southern Cayapó diminish. The last attested encounter is described by Barbosa (1918) in 1911, with a small group. After that, it was considered that the southern Cayapó had become extinct: "today, their tribal existence has ceased" (Lowie 1946: 519).

Giraldin (1997) provides an overview of the evidence supporting the identification of the language spoken by the southern Cayapó as Panará, with the study of additional sources for Cayapó word lists. He also summarizes the numerous cultural similarities between the historical Cayapó and the contemporary Panará. Giraldin concludes that the Panará encountered by Brazilians in Mato Grosso in the second half of the 20th century were indeed a surviving group of southern Cayapó.

The *panãra* autonym used today by the Panará from Mato Grosso is also attested in southern Cayapó vocabulary lists. It was collected as *panariá* by Saint-Hilaire (1830–51) in 1819 and as *panará* by Barbosa (1918) himself in 1911. Schwartzman (1988) argues that the contemporary Panará were a group that had remained "non-assimilated" during the peak of southern Cayapó conflict and their settlement in state-run villages, an opinion shared by Giraldin (1997) and Ewart (2000).

Tracing the extent to which contemporary Panará had contact with Brazilian society in the previous centuries is an open issue, and further research might yet turn up additional information in the forseeable future. There is however little doubt that the community that made contact with Brazilian society in the 1960s and 1970s were a vestige of what used to be a a large indigenous nation known to colonial Brazilians as southern Cayapó. With a population estimated at 25,000 people in 1500 (Hemming 1978: 493), before the colonial era, this indigenous nation all but vanished in the following centuries. Were it not for the existence of the modern Panará, all we would know about their language would be limited to several lists of words collected by travellers, which is unfortunately the extent of our knowledge of many Amazonian languages.

1.2 Fieldwork

> "My attitude to the notion of 'linguistic field methods' or the notion 'what one should do in linguistic field research' is this: do whatever you need to do in order to learn the language" (Hale 2001: 81).

The Panará data presented in this book, and the empirical foundation of my own insights on the language, rest mainly on the research that I was able to conduct during eight months spent as a guest of the Panará. I carried out fieldwork during four trips to the Panará Indigenous Land between 2014 and 2017, during which time I collected Panará linguistic data, tested specific hypotheses, and acquired fluency in the language.

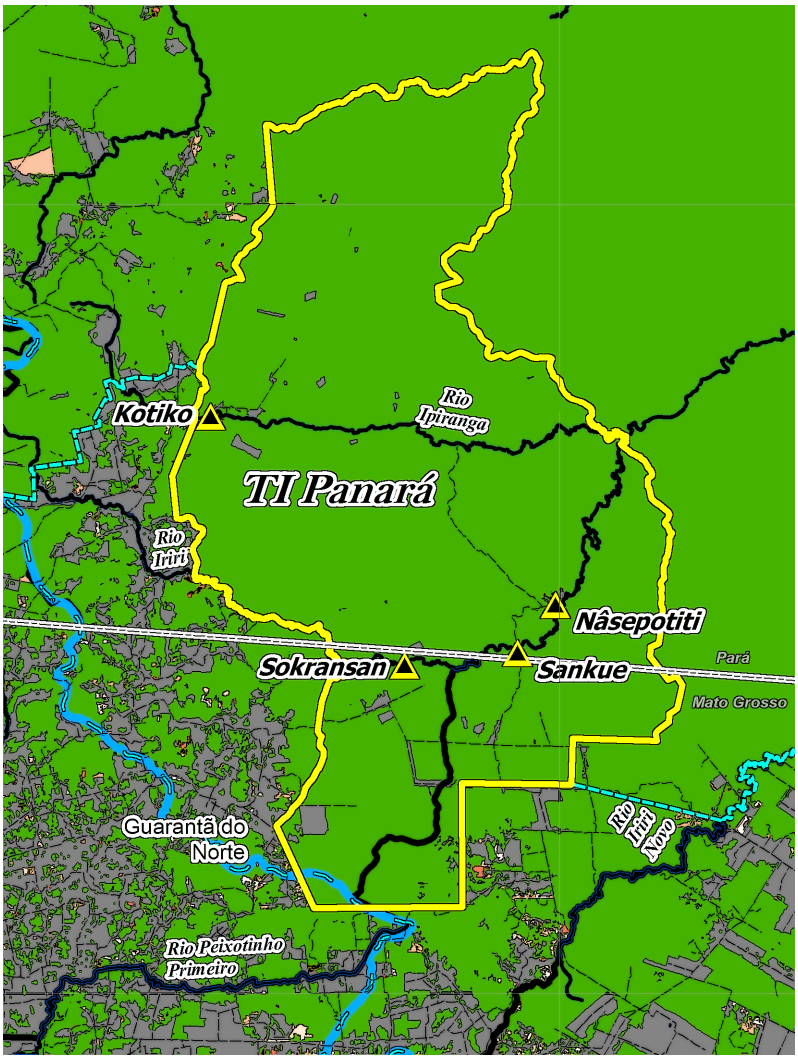
The field

When in 2014 I became a PhD candidate at the University of Groningen, I had never seen a Panará person. However, I was already in touch with the Panará community and they were awaiting my first visit, thanks to three people: Bruna Franchetto (the director of the Museu do Índio and linguistics professor at the Museu Nacional, both in Rio de Janeiro), André Villas-Bôas (executive secretary of ISA) and Fabiano Bechelany (then a doctoral student in anthropology at the University of Brasilia). Bruna sponsored me to apply for government authorization and contacted ISA on my behalf. It was André who talked to the Panará about me, and asked them if it would be acceptable for me to visit and become "their linguist" (they said yes). Fabiano, who was spending a lengthy period in the field, helped to arrange my arrival in Guarantã do Norte and my first trip to Nãsepotiti.

The Panará currently live in four villages, all of them inside the Panará Indigenous Land (map 3). The village of Nãsepotiti was built in 1994, when the Panará moved from the Xingu Indigenous Park back to their traditional land. It sits on the shore of the upper Iriri river. The dramatic population loss that followed contact was felt by the Panará as a near-extinction moment, and it was followed by significant efforts to repopulate. Today the Panará number 500-600, and approximately 80% of the population is below the age of 18.

Eventually, demographic growth reached a point where it became possible to sustain more than one village, and in 2012 some families built the village of Sõnkwêê further upriver and moved there. When I visited the Panará for the first time in the summer of 2014 the move to a second village, Sõkârãsâ, was in its final stages. Finally, in 2016 a number of Panará moved to a fourth village,

Kôtikô, built on a different corner of the indigenous land, on the Ipiranga river.



Map 3. Villages in the Panará Indigenous Land.
Source: Instituto Socioambiental. Used with permission.

My fieldwork took place in Nãsepotiti, the main Panará village. This is where most of the population still lives (300-400 inhabitants) and where most facilities are: a health post manned by Brazilian nurses 7 days a week, a landing strip, a guest house for "white" people staying at the village, and a solar-powered

internet satellite connection that provides the only communication between the Panará Indigenous Land and the outside world—with the exception of the radio transmitters present in each of the villages and at a house in the nearest Brazilian town, Guarantã do Norte.

Access to Nãsepotiti is not easy. In Amazonian terms, however, it cannot be considered difficult. Of the two possible access ways, taking a bush plane is by far the most expensive, although it is also the fastest and most reliable one. I did not take a plane, instead I used the alternative of joining a group of Panará travelling from Guarantã to Nãsepotiti. This is a rather unreliable and relatively unconfortable way to travel: one can never be sure that the Panará will arrive or leave when they say that they will and, when they do, there might not be an extra place left for you in their pick-up truck. I was always lucky enough to not have to wait for too long in Guarantã before I could get a ride with the Panará. After driving for 4-5 hours on a non-asphalted track that crosses cattle ranches, soy and corn fields and finally the forest in the demarcated Panará land, you reach the shores of the Iriri. From there, you take a small boat with an overboard engine that takes you to the village in 1-2 hours. Depending on the season the river will run more full or less, and you might have to jump off the boat and push or pull a few times. The rainy season is also problematic, as the road through the ranches is often so full of mud that driving through it becomes almost impossible.

In Nãsepotiti I stayed at the *casa do ISA*, a hut that was initially built for people from ISA (the Instituto Socioambiental). It is also the place where foreigners can stay when they need to spend time in the village. The ISA house is slightly separated from the circular Panará village, next to the village school and just past the health post, a 5 minute walk from Nãsepotiti proper. Not much further out there was the brand new village of Krêsan, a tiny village built in 2014 by the Kayapó (Mẽbêngôkre) relatives of a Panará who was kidnapped by Kayapó raiders as a child and raised as one. In 2016 the small Krêsan village was abandoned and moved to a different place, and the old one has since been reclaimed by vegetation.

Panará villages have a circular structure, as is also common in other Jê groups and more generally in the Xingu area (Ewart 2000; Schwartzman 1988). In the particular case of Panará society, the basic social units are clans. Panará clans are matrilineal, and as such everyone is born into their mother's clan. The four Panará clans are Kwakjatantêra, Krerõantêra, Kwasinantêra, and Kwasôtantêra. Village houses are organized in four quarters, one for the houses of each clan. Panará families are uxorilocal—a man goes to live with the family of his wife. When marrying a woman, and especially after having

a first child, a Panará man also becomes a member of the clan into which he married. He will hunt, fish, work the fields and generally provide for not only his wife and children but also his family-in-law. Marrying someone in your birth clan, or even flirting with them, is not allowed—after asking the Panará about it, the impression is that it is simply unthinkable.

The Panará village of Nãsepotiti.
Photo by B. Bardagil-Mas.

As in other Jê groups, there is a "men's house" in the middle of the village, the *inkâ*. This is the meeting place for the community, especially to hold meetings for discussing any issues concerning the community, and where traditionally the unmarried adult men slept. Today Panará houses are built with a structure of logs and covered with a high thatch roof, in Xingu style, rather than the traditional Panará houses with palm leaves on the outside all the way to the ground. Houses are all oriented with their doors facing the inside of the circle, creating a configuration where everything that transpires in the village is easily visible from any of the houses. Simpler structures consisting of only a roof are usually built behind each house or group of houses, and this is where cooking, handcraft and most socialization take place.

The ISA house, outside of the village circle, provided an excellent base of operations. I was able to keep my own food (basically rice, beans, dehydrated soy protein, salted or cured meat and preserved foods) and cook it on the gas

stove, and it was a quiet environment where I could talk to people without distractions or too much noise when working with informants, or otherwise taking care of social visits. Visitors to the ISA house are a constant in the Panará village, the Panará always enjoy having a glass of coffee while talking to the foreigners, the *ippẽ*, staying among them. A dynamic socialization is crucial to the Panará approach to community life, where social calls are exremely common and expected to be met with offers of coffee, juice and food.

In the same vein, Panará households also enjoy receiving visits and offering them anything that is available. This provides an ideal situation to start learning the language from the first day, especially because of how vital Panará is among its speakers. Becoming adopted by a Panará family, as had been the case for anthropologists doing fieldwork research in the village in recent history, was a natural consequence of my interest in the language and culture. Family ties also provided me with a kinship network and a way for me to fit within the clan system, all of which are fundamental for the the development of everyday interactions.

Data collection

The linguistic data necessary to investigate the grammatical phenomena covered in this dissertation, namely clausal structure, case marking and cross-reference morphology, are specific data that would not be easily encountered in enough instances by collecting and examining spontaneous speech. Besides the crucial analysis of recorded texts and transcriptions, I also elicited data in hand-to-hand sessions with Panará language informants. I tried as much as possible to avoid the systematic use of translations as an elicitation method, which can easily induce an undesired interference of the grammar of the lingua franca (Brazilian Portuguese in this case) on the elicited data. Instead, I used alternative strategies of what is grossly known as monolingual elicitation: completion of sentences, substitution, paraphrases, judgements on modified sentences, among other methods.

Elicitation shifted progressively from bilingual translation-based work to monolingual elicitation as I became increasingly fluent in Panará. Given the difficulty inherent in grammaticality judgements, some degree of redundancy in data collection was always sought in order to ensure the reliability of the data. Besides the Panará people to whom I have spoken and who have worked with me as linguistic informants, I have also been able to consult with some speakers of Mẽbêngôkre who live among the Panará.

This dissertation contains a high amount of language examples in Panará,

in the rest of the Jê languages, and also a few in other languages of the world. When such examples are not in English, both a translation and a morpheme-level gloss are provided. The source of the example is always indicated. Secondary sources are cited as bibliographical references with an indication of the page where the example can be found, and examples collected by myself are all followed by an indication of the source between parentheses.

Data collected through elicitation work with informants, abbreviated as (el), were provided as a result of a direct question or request for a translation into Panará. As mentioned, speaker intuitions and grammaticality judgements were essential to collect informaton on the mechanisms of case and agreement in Panará. Elicitation sessions were recorded as often as possible, so as not to rely only on notes scribbled down on a notebook. When I am not among the Panará, a few young men like to stay in touch with me through social media.[5] The language used in these exchanges is often Panará, and some of the messages sent to me were good spontaneous examples of certain phenomena. When cited, they are abbreviated as (fb).

In my approach to linguistic fieldwork, participant observation was the third leg of data collection, together with gathering texts and elicitation work. Spontaneous utterances that I did not record but I instead wrote down upon hearing them are abbreviated as (obs). Recorded texts, abbreviated as (txt), comprise any non-elicited utterance that was produced and recorded, either with or without my presence at the time. This includes narratives, myths, conversation and speeches. These materials were recorded with an audio recorder (a Zoom H4n) using either the incorporated microphones, unidirectional headset microphones (a Yoga HM-20 and a Shure-SM10A), or a combination of the two. For the most part, these recordings were also filmed with a Sony HDR-MV1 video camera.

Most of these materials, with accompanying transcriptions where available, are stored at the Endangered Languages Archive in deposit number 0418, called *A Digital Documentation of Panará*.[6]

5. Almost exclusively through Facebook.
6. Archive deposit page: http://elar.soas.ac.uk/deposit/0418.

CHAPTER 2

An overview of Panará grammar

This chapter provides a sketch of Panará grammar. Certain aspects of the morphosyntax of Panará covered in this chapter are further detailed and analyzed in the following chapters; when that is the case, a reference to the relevant sections is provided. The goal is to build on Dourado's (2001) description of Panará grammar and provide a contemporary account of the extent of our knowledge of the language.

2.1 Phonology[1]

This section contains a preliminary description of Panará segmental phonology. Section 2.1.1 presents an account of consonants, and section 2.1.2 of vowels.

2.1.1 Consonants

The 15 consonant phonemes of Panará include three distinctive series of stops, namely voiceless obstruent, voiceless geminate, and nasal, with bilabial, alveolar, palatal, and velar points of articulation. Panará also has three approximants, with bilabial, alveolar and palatal points of articulation.

1. An extended version of this work is given by Lapierre & Bardagil (2018).

	Labial	Dental	Alveolar	Velar
Obstruents	p	t	s	k
Geminates	pp	tt	ss	kk
Nasal stops	m	n	ɲ	ŋ
Approximants	w	ɾ		j

Table 2.1: Panará consonant phonemes.

This phonemic analysis of the consonants of Panará differs from the previous one (Dourado 1990, 2001) in that (1) six additional consonants, namely /pp, tt, ss, kk, ɲ, ŋ/, are now considered contrastive phonemes; and (2) the glottal consonants [ʔ] and [h] are no longer considered phonemic. Specifically, the phonemic status of the glottal stop has been replaced by a series of contrastive geminate obstruents due to phonotactic distributions, and phonological behaviour of the relevant segments.[2] as well as phonetic realization[3] Furthermore, the distribution of the glottal fricative [h] is prosodically conditioned and predictable; as such, it does not hold the status of phoneme in Panará.

2.1.1.1 Post-oralization of nasal stops

In Panará, nasal consonants in onset position of a syllable are only ever fully nasalized when they occur before a phonemically nasal vowel (1). When nasal consonants in onset position of a syllable occur before a phonemically oral vowel, or an approximant consonant as part of a complex onset cluster, they are post-oralized and devoiced, as in (2). This phonological process is common to many languages of the Jê language family, and more generally to languages of the Eastern Amazon. Panará differs from other Jê and Eastern Amazonian languages in that the result of nasal consonant post-oralization further includes a phonetic process of devoicing.

(1) /m, n, ɲ, ŋ/ → [m, n, ɲ, ŋ] / $_{\sigma}$[_ Ṽ

(2) /m, n, ɲ, ŋ/ → [m͡p, n͡t, n͡s, ŋ͡k] / $_{\sigma}$[_ V, w, ɾ, j

2. Glottal stop would only be observed when followed by a singleton obstruent. It is never observed on its own.

3. The phonetic realization of the so-called glottal stop in Panará is obviously not that of a glottal stop. For instance, in geminate [pp], closure of the lips during the entire duration of the geminate obstruent can be seen clearly, and native speakers judge the pronunciation [ʔp] to be incorrect.

2.1.1.2 Obstruent gemination

While geminate voiceless obstruents are a part of the phonemic inventory of Panará, a productive synchronic phonological process also results in allophonic geminate obstruents. Specifically, when a morpheme-final voiceless stop is adjacent to a morpheme-initial voiceless stop, allophonic obstruent geminates occur, as in (3).

(3) a. /tɛp+pãː/ → [tɛp.pãː], *[tɛ.pi.pãː] (small fish)

b. /jɔːp+pyt/ → [jɔwp.pɯːti] *[jɔw.pɯ.pɯː.ti] (one dog/jaguar)

c. /wɤtɤt+sɤ/ → [wɤtɤt.sɤ], *[wɤ.tɤ.ti.sɤ] (strong sun)

When two adjacent obstruents have a different place of articulation, the geminate consonant takes the point of articulation of the second consonant (4).

(4) a. /tɛp+tɯ/ → [tɛt.tɯ], *[tɛp.pɯ] (dead fish)

b. /tɛp+kɤ/ → [tɛk.kɤ], *[tɛp.pɤ] (fish scales, lit. fish skin)

c. /kjepɯt+pãː/ → [kje.pɯp.pãː], *[kje.pɯ.t.tãː] (the little Kjêpyti)

2.1.1.3 Pre-nasalization of oral obstruents

In addition to the lexical level process of post-oralization of nasal consonants described in §2.1.1.1, Panará also exhibits a process of pre-nasalization of oral obstruents (5).

(5) /p, t, s, k/ → [mp, nt, ns, ŋk] / Ṽ]$_{\sigma}$ _

Unlike the categorical process of post-oralization of nasal consonants, oral obstruent pre-nasalization is a purely phonetic process that applies variably and gradiently (i.e. it is not always observed). Pre-nasalization is observed most frequently in fast speech, but speakers vary in the frequency and degree to which they pre-nasalize oral obstruents. In addition, it is worth noting that oral consonant pre-nasalization is realized phonetically with a much shorter period of nasality than nasal consonant post-oralization.

2.1.1.4 Merger of coda nasals

Nasal consonants in coda position appear to be specified for point of articulation at a phonemic level. However, the contrast between nasal consonants in this syllable position is obscured because of allophonic alternations. All nasal consonants that occur in coda position of a syllable are realized either as [ŋ] or as [m].

The underlying point of articulation of these nasal consonants can be observed in data from morpheme compounding. When a morpheme-final coda nasal is adjacent to a vowel in morpheme-initial position, the coda nasal is resyllabified as an onset consonant, and the underlying point of articulation of the nasal consonant can be observed (6).

(6) a. /nɯm+akrit/ → [n̂tɯr̃ãkriti] (capybara monster)

b. /nɯm+pã:/ → [n̂tɯmpã:] (small capybara)

c. /nɯm+si/ → [n̂tɯnsi] (capybara bone)

d. /nɯm+tɯ/ → [n̂tɯntɯ] (dead capybara)

e. /nɯm+krɤ/ → [n̂tɯŋkrɤ] (capybara thigh)

f. /nɯm+nã/ → [n̂tɯr̃ĩnã] (big capybara)

2.1.1.5 Lenition of palatal nasals

In onset position preceding a phonemically nasal vowel, /ɲ/ can be lenited and realized phonetically as [j̃]. In other words, [ɲ] and [j̃] are in free variation in said context. This allophonic process is very common across the Jê language family (e.g. in Mẽbêngôkre). Note that /ɲ/ cannot be realized as [j̃] when it appears in coda position of a syllable, and that phonemic /j/ can never be realized as [ɲ].

(7) a. /ɲãsɯ/ → [ɲãsɯ ~ jãsɯ] (deer)

b. /ɲõmãt/ → [ɲõmãti ~ jõmãti] (duck)

c. /kɤjɤŋ/ → [kɤjɤŋ], *[kɤɲɤŋ] (arrow)

2.1.1.6 Affrication of palatal geminate

Geminate /ss/ is often realized phonetically as the palatal affricate [t͡ʃs], as in the examples in (8).

(8) a. /sse/ → [isse] ~ [it͡ʃse] (bow)

b. /sswɯŋ/ → [isswɯŋ] ~ [it͡ʃswɯŋ] (bird)

Among the older generation of Panará, all of whom became young adults before contact with Brazilian society, speakers from certain pre-contact villages produce affrication, while others do not. Among young speakers, while most of them produce affricates, the phonetic geminate is not rare. This suggests that [ss] and [t͡ʃs] are in a form of sociolinguistic variation.

2.1.2 Vowels

Like other languages of the Jê family, Panará has a particularly large vowel inventory. Specifically, Panará has a total of 29 contrastive vowels, which can be either oral or nasal, and short or long. Oral vowels contrast three backness values and three height values. Nasal vowels also contrast three backness values, but only two height values. Table 2.2 presents the vowel phonemes of Panará.

Oral vowels			Nasal vowels		
Front	Central	Back	Front	Central	Back
i iː	ɯ ɯː	u uː	ĩ ĩː	ɯ̃ ɯ̃ː	ũ ũː
e eː	ə əː	o oː	ẽ ẽː	ə̃ ə̃ː	õ õː
ɛ ɛː	a aː	ɔ ɔː			

Table 2.2: Panará vowel phonemes.

Our analysis of Panará vowels differs from the previous one (Dourado 1990, 2001) in the addition of a contrast in length, which is productive for all vowel qualities, except [ɯ̃]. [4] We have also chosen to replace Dourado's /ɨ, ə/ symbols with /ɯ, ɤ/ to better represent the acoustic quality of these central vowels (Lapierre 2016). Minimal pairs are provided in tables 2.3 and 2.4.

4. Note that the vowel [ɯ̃] has a very low functional load, as it has only been observed in two words, namely [mɯ̃ŋ] "venitive" and [pɯ̃ːɾã] "alone." While the vowel is phonetically long in the latter example, it appears in a stressed syllable in penultimate position of a prosodic word, a prosodic position in which all vowels are phonetically long and contrasts in vowel length are neutralized.

i : e	ssi (*name*)	sse (*bow*)
e : ɛ	sse (*bow*)	ssɛ (*to cut in half*)
ɯ : ɤ	sɯ (*seed*)	sɤ (*pain, spicy*)
ɤ : a	kɤ (*skin*)	ka (*2SG pronoun*)
u : o	puu (*field*)	poo (*to arrive*)
o : ɔ	po (*to burn*)	pɔ (*cane, flute*)

Table 2.3: Minimal pairs for vowel quality.

i : iː	kri (*village*)	kriː (*a lie*)
e : eː	sse (*bow*)	sseː (*to regroup*)
ɛ : ɛː	ŋkrɛ (*egg*)	ŋkrɛː (*to sing*)
ɯ : ɯː	tɯ (*dead*)	tɯː (*leaf*)
ɤ : ɤː	kɤ (*skin*)	kɤː (*axe*)
a : aː	pa (*arm*)	paː (*foot*)
u : uː	pu (*full*)	puː (*field*)
o : oː	nãnso (*mouse*)	nãnsoː (*black vulture*)
ĩ : ĩː	jĩ ~ ɲĩ (*meat*)	jĩː / ɲĩː (*to defecate*)
ẽ : ẽː	pẽ (*white person*)	pẽː (*language, to speak*)
ã : ãː	pɤ̃ (pã *owl*)	pãː (*small*)
ũ : ũː	sũ (*to tell*)	sũː (*male*)
õ : õː	kõ (*knee, to drink*)	kõː (*perlative adposition*)

Table 2.4: (Quasi) minimal pairs for vowel length.

2.1.2.1 Long vowel diphthongization

The long vowels /oː, ɔː, õː, eː, ẽː/ are realized phonetically with diphthongization as [ow, ɔw, õw̃, ej, ẽj̃] respectively.

(9) a. /poː/ [pow] (to arrive)

b. /sõseː/ [sõsej] (fishing line)

2.1.2.2 Low vowel reduction

The vowel /a/ may be reduced to [ɐ] or [ə] in unstressed syllables.

(10) a. /mãra/ [mã'ra] (3SG)

b. /mãra + ra/ [mãra'ra ~ mãrɐ'ra ~ mãrə'ra] (3SG.DU)

2.1.3 Syllable structure

Table 2.5 presents an exhaustive list of permissible syllables in Panará, which are maximally bimoraic. Note that only vowels are moraic in Panará; consonantal codas never contribute a mora to a syllable.

C may be any of the consonants presented in table 2.5, V may be any of the short vowels presented in Figure 4, and V: may be any of the long vowels presented in Figure 4. C_1 must be a nasal consonant or an obstruent (singleton or half of a geminate); C_2 must be an approximant; and C_3 must be a nasal consonant or half of a geminate obstruent. Furthermore, sequences where C_1 and C_2 share the same active articulator—such as the lips, the tongue tip or the tongue body—are banned, as has been discussed for Macro-Jê languages by D'Angelis (1998). For example, alveolar and palatal consonants cannot cooccur in a syllable onset because they are produced with the same active articulator, namely the tongue tip. Syllables of the type V and V: are rare, especially in stressed position.

Syllables of the type $C_1C_2VC_3$ (where C_3 is a half of a geminate), CV:C_3, C_1C_2V:C_3, and $C_1C_2VC_3$ only arise as a result of morpheme concatenation.

Syllable	Examples	
V	/a-/ [ha ~ a] ‘2sg.abs’	/ɔ/ [hɔ ~ ɔ] ‘1ns’
CV	/pã/ [pã] ‘owl’	/sɯ/ [sɯ] ‘seed’
C_1C_2V	/kɾi/ [kɾi] ‘village’	/swa/ [swa] ‘tooth’
V:	/a:/ [ha: ~ a:] ‘yes’	/o:/ [how ~ ow] ‘what?’
CV:	/pa:/ [pa:] ‘foot’, ‘yes’	/pu:/ [pu:] ‘field’
C_1C_2V:	/nwe:/ [n̥t͡ɥej] ‘new’	/pjo:/ [pjow] ‘negation’
CVC_3	/kaŋ/ [kaŋ] ‘basket’	/mũŋ/ [mũŋ] ‘high up’
$CV:C_3$	/jɔ:p+pa:/ [jɔwp.pa:] ‘jaguar foot’	/pa:+ɲi/ [pa:n.si] ‘large foot’
$C_1C_2VC_3$	/kwakɾit+tu/ [kwa.kɾit.tu] ‘club’	/kwɯŋ/ [kwɯŋ] ‘to break’
$C_1C_2V:C_3$	/kjɯt+tɛ/ [kjɯt.tɛ] ‘tapir leg’	/pu:+ nwe/ [pu:n.tɥe] ‘new field’

Table 2.5: Permissible syllables in Panará.

2.1.4 Orthography

The Panará community, especially the Panará trained as teachers that work at the schools in the Panará villages, have been actively developing an orthography for the past 20 years. Most of today’s writing system was established with the help of literacy workshops organized by the Brazilian government and NGOs, in which Luciana Dourado also took part as a teacher.

Some major issues remained unresolved for the Panará to write their language comfortably, all of them connected to phonological phenomena that had remained undetected and therefore excluded from the previous incarnation of the writing system. The Panará orthography used in this dissertation reflects the othographic conventions that the Panará have adopted since 2016 and 2017 during language workshops ran together with Bernat Bardagil-Mas and Myriam Lapierre. Table 2.6 presents the orthographic representations of Panará vowels.

[i] = i	[ɯ] = y	[u] = u	[ĩ] = ĩ	[ũ̟] = ỹ	[ũ] = ũ
[i:] = ii	[ɯ:] = yy	[u:] = uu	[ĩ:] = ĩĩ	[ũ̟:] = ỹỹ	[ũ:] = ũũ
[e] = ê	[ə] = â	[o] = ô	[ẽ] = ẽ	[ə̃] = ã	[õ] = õ
[e:] = êê	[ə:] = ââ	[o:] = ôô	[ẽ:] = ẽẽ	[ə̃:] = ãã	[õ:] = õõ
[ɛ] = e	[a] = a	[ɔ] = o			
[ɛ:] = ee	[a:] = aa	[ɔ:] = oo			

Table 2.6: Panará spelling: vowels.

Vowel length is a new addition to the spelling system. Once it became clear

that vowel length is phonemic, the proposal to reflect that distinction in the orthography was met with enthusiasm. The Panará decided that long vowels would be represented with a digraph, simply doubling the vowel in question.

Turning to consonants (table 2.7), two modifications were made to the previous orthography. Post-oralized nasal stops are now represented with a digraph. The Panará a nasal-oral stop combinations of letters with the same point of articulation, choosing to represent the nasal element always with *n*, e.g. preferring *np* to *mp* for [m͡p]. Post-oralized nasal stops are represented with *n* followed by an oral stop homorganic to the point of articulation. Coda nasals are also uniformly represented with *n*. Geminates were previously represented in the orthography as a glottal stop. However, the Panará have now switched to representing them with a digraph by doubling the consonant in question, in a way similar to the representation of long vowels.

[p] = p	[t] = t	[s] = s	[k] = k
[pp] = pp	[tt] = tt	[ss~ts] = ss	[kk] = kk
[m] = m	[n] = n	[ɲ] = n	[ŋ] = n
[m͡p] = np	[n͡t] = nt	[n͡s] = ns	[ŋ͡k] = nk
[w] = w	[r] = r		[j] = j

Table 2.7: Panará spelling: consonants.

Throughout this dissertation, unless otherwise indicated in the notation, Panará is written in its current orthography.

2.2 Parts of speech and morphological profile

Panará combines aspects of both head-marking and dependent-marking grammars. As will be seen in this section, properties of nominals such as number and case are morphologically indexed both on noun phrases and on verbal morphology. In Panará, open classes include verbs, nouns and adjectives (§2.2.1). Closed classes include postpositions, pronouns, conjunctions, quantifiers and verbal particles (§2.2.2).

2.2.1 Open classes

In Panará, all open classes form a cohesive grouping of roots that can occur interchangeably in their syntactic position in the clause. In other words, the syntactic distribution in a clause is not a diagnostic of membership to a particular open class of roots. A word like *inkô* 'water' or *inpinpjâ* 'husband' can be the head of a noun phrase (11a, 12a) or the head of a finite clause (11b, 12b).

(11) a. Rê= s= anpun inkô.
1SG.ERG 3SG.ABS see water
'I saw the water.' (el)

b. Kôômã jy= py= ∅= inkô.
now INTR ITER 3SG.ABS water
'The water is back.' (obs)

(12) a. Inkjẽ inpinpjâ.
1SG husband
'My husband.' (txt)

b. Jy= ra= inpinpjâ.
INTR 1SG.ABS husband
'I became married (to a man).' (txt)

The same word *inpinpjâ* can also modify the head of a noun phrase in the same way as words like *asâ* 'fierce' that denote a state, quality or defining characteristic, like prototypical adjectives (13).

(13) a. Joopy asâ jy= ∅= tẽ.
jaguar fierce INTR 3SG.ABS leave
'The fierce jaguar left.' (el)

b. Joopy inpinpjâ jy= ∅= tẽ.
jaguar husband INTR 3SG.ABS leave
'The husband jaguar left.' (el)

As seen in the examples above, heading a noun phrase, modifying a noun or heading a finite predicate are all available to the same root. This indicates that, in Panará, roots are not specified for a syntactic category. That does however not imply that syntactic categories do not exist in Panará, as they do exist in the syntax. Acategorial lexical roots acquire a category once inserted into a syntactic environment.

Once words are articulated in a syntactic context, Panará's own inflectional morphology can be used rather straightforwardly to establish different syntactic classes. Nouns are defined on the basis of number suffixes (also pronouns, §2.2.2.3). Verbs are defined on the basis of mood inflection, and also by the presence of a polysynthetic verb complex. Adjectives are defined by the lack of inflection, either for number or mood.

2.2.1.1 Nouns

In Panará, nouns appear in the clause with no determiners. Case marking is a property of nouns and pronouns and is obligatory on core arguments, indexed morphologically both on noun phrases and on the clitics that double participants in the polysynthetic verb complex.

The ability to bear number morphology is a diagnostic for nouns and strong pronouns. Contrary to nouns, adjectives always appear in a bare form. Panará nouns and pronouns (nominals) present number inflection for three number values: singular, dual, and plural. On nominals, singular is unmarked, while dual and plural are marked by means of a suffix (14). Number features are also reflected on the pronominal clitics that cross-reference participants on the verb (discussed in §3.4.2).

(14) a. *Singular*
Ka jy= a= pôô.
2SG INTR 2SG.ABS arrive
'You arrived.' (el)

b. *Dual*
Ka -ra jy= mẽ= a= pôô.
2SG-DU INTR DU 2SG.ABS arrive
'You two arrived.' (el)

c. *Plural*
Ka -mẽra jy= rê= a= pôô.
2SG-PL INTR 2PL 2ABS arrive
'You guys arrived.' (el)

Other than demonstratives, there are no determiners in Panará, either definite or indefinite (15).

(15) a. Inpy jy= ∅= pôô.
man INTR 3.ABS arrive
'The man arrived.' (el)

b. Rê= ∅= pĩri kjyti.
1SG.ERG 3.ABS kill.SG tapir
'I killed a tapir.' (txt)

Bare nouns in Panará can express a characterizing property of instances of a kind (generalizations about sets of entities, associated with indefinite noun phrases), as seen in (16). But Panará bare nouns also resemble definite noun phrases in some languages in that they can also predicate a property of the kind denoted by the noun (an abstract entity related to individual specimens) in a kind reading, as in (17).

(16) *Characterizing statement*
Asâ swasĩrã.
fierce w.l.peccary
'The white-lipped peccary is aggressive.' (obs)

(17) *Kind reference*
Jy= ∅= pjoo pytinsi intymãkriti.
INTR 3.ABS NEG very capivara.monster
'The capivara monster is completely extinct.' (obs)

Accordingly, we also observe the widely noticed ambiguity of bare nouns that arises from the lack of (in)definite determiners (Krifka 2004).

(18) Swakõ hẽ ti= ∅= kuri kwansôpy.
coati ERG 3SG.ERG 3.ABS eat worm
'Coati eat worms'
or 'A particular coati eats worms'
or 'A particular coati ate a particular worm.' (el)

Panará bare nouns are similar in that respect to bare plurals in English, which allow both characterizing and kind interpretations:

(19) a. *Characterizing statement*
Giant sloths are huge.
(A giant sloth is huge.)

b. *Kind reference*
Giant sloths are extinct.
(#A giant sloth is extinct.)

In fact, in Panará plural morphology is only optionally realized on nouns, and we observe unmarked plurals. Plurality is however obligatory on the pronominal clitics that cross-reference participants. In the sentences in (20), plurality of the internal object is observable by the pluractional form of the verb (20b-20c).

(20) a. Rê= ∅= pĩri swasĩrã.
1SG.ERG 3.ABS kill peccary
'I killed a white-lipped peccary.' (el)

b. Rê= ∅= pari swasĩrã.
1SG.ERG 3.ABS kill.PLAC peccary
'I killed white-lipped peccaries.' (el)

c. Rê= ∅= pari swasĩrã-mẽra.
1SG.ERG 3.ABS kill.PLAC peccary-PL
'I killed white-lipped peccaries.' (el)

d. *Rê= ∅= pĩri swasĩrã-mẽra.
1SG.ERG 3.ABS kill peccary-PL
(I killed a white-lipped peccary.) (el)

All nouns in Panará are bare nouns, with both characterizing and kind readings. Bare nouns can have a plural reading, but in that case the noun cannot control singular agreement with the clitic associated with it, which necessarily indexes plural. Dual number exponence, more complex than plural, is addressed in chapter 3 (§3.4.2.3).

Countability[5]

As is well known, in many languages number morphology teases apart two main groups of nouns, those that behave like count nouns (21) and those that behave like mass nouns (22).

5. Some of the content of this subsection is adapted from a forthcoming paper (Bardagil to appear).

(21) *Count nouns*

a. house

b. houses

(22) *Mass nouns*

a. sand

b. #sands

In the previous English examples, the possibility of inflecting for number distinguishes count nouns and mass nouns. In Panará, number morphology is also sensitive to the semantic properties of nouns. Although some speakers do accept combining inanimate, a priori count nouns with plural morphology, for certain speakers this elicited a mild dissatisfaction in their judgements (23, 24).

(23) Rê= s= anpun joopy-mẽra.
1SG.ERG 3.ABS see jaguar-PL
'I saw jaguars.' (el)

(24) #Rê= s= anpun pakwa-mẽra.
1SG.ERG 3.ABS see banana-PL
'I saw bananas.' (el)

However, for the speakers that were uneasy about (24) the unacceptability of number morphology was consistently repaired by the presence of a numeral or quantifier in the noun phrase (25).

(25) Rê= s= anpun nõpjô pakwa-mẽra.
1SG.ERG 3.ABS see few/three banana-PL
'I saw three bananas.' (el)

There is a third category of nouns that can never have plural morphology, either with or without a numeral, and keep the intended interpretation. The nouns that behave like *mõsy* 'corn' in (26, 27) denote referents that cross-linguistically are often identified as mass nouns.

(26) a. Rê= s= anpun mõsy.
1SG.ERG 3.ABS see corn
'I saw corn.' (el)

b. *Rê= s= anpun mõsy-mẽra.
1SG.ERG 3.ABS see corn-PL
Intended: 'I saw corns.' (el)

(27) a. Rê= s= anpun kwêkwê.
1SG.ERG 3.ABS see mud
'I saw mud.' (el)

b. *Rê= s= anpun kwêkwê-mẽra.
1SG.ERG 3.ABS see mud-PL
Intended: 'I saw muds.' (el)

This suggests that, in Panará, there is a category akin to that of mass nouns. If that is so, mass nouns can be diagnosed by their inability to take number morphology. I will refer to these nouns, listed in (28), as mass nouns.

(28) a. inkô 'water'
b. inta 'rain'
c. kwêkwê 'mud'
d. kwatisô 'thatch'
e. mõsy 'corn'
f. nanpju 'blood'
g. nãnpen 'honey, sugar'
h. kjorinpe 'rice'

The unacceptability of number morphology on Panará mass nouns is not repaired by the addition of a numeral, as opposed to the inanimate count nouns (25). As (29) illustrates, the resulting sentences are still not acceptable.

(29) a. *Rê= s= anpun nõpjõ kwatisô-mẽra.
1SG.ERG 3.ABS see three thatch-PL
Intended: 'I saw three thatches.' (el)

b. *Rê= s= anpun pytira inta-ra.
1SG.ERG 3.ABS see two rain-DU
Intended: 'I saw two rains.' (el)

The only way for the Panará speakers that were consulted to accept plural morphology on a mass noun is by forcing a count reading (30).

(30) a. Rê= s= anpun nãnpju-mẽra.
1SG.ERG 3.ABS see blood-PL
'I saw several girls of the menstruation ceremony.' (el)

b. Rê= s= anpun inta-ra.
1SG.ERG 3.ABS see rain-DU
'I saw two people that come with the rain.' (el)

The distribution of numerals or quantifiers is orthogonal to the apparent mass-count distinction in Panará. Quantifiers like *inkjêti* 'a lot' or *kiti* 'a little' can combine with both count nouns and mass nouns (31–32). If we consider that numerals and quantifiers are different in Panará, which is not clear, the same applies to numerals (31c–32c).

(31) a. *Mass*
Rê= ∅= kuri kjorinpe inkjêti.
1SG.ERG 3.ABS eat rice lot
'I ate a lot of rice.' (el)

b. Rê= s= anpun inta kiti.
1SG.ERG 3.ABS see rain little
'I saw little rain.' (el)

c. Rê= s= anpun nõpjõ mõsy.
1SG.ERG 3.ABS see few/3 corn
'I saw three corns.' (el)

(32) a. *Count*
Rê= ∅= kuri tepi inkjêti.
1SG.ERG 3.ABS eat fish lot
'I ate a lot of fish.' (el)

b. Rê= s= anpun kukre kiti.
1SG.ERG 3.ABS see house little
'I saw few houses.' (el)

c. Rê= s= anpun nõpjõ kukre.
1SG.ERG 3.ABS see few/3 house
'I saw three houses.' (el)

From the evidence available at this stage, the pronominal clitics that cross-reference the suspect mass nouns need to appear in the default/singular form. Contary to (33), with a plural noun that can be cross-referenced by both a plural clitic and a less marked singular clitic, with a mass noun like in (34) the more marked 3PL.ABS form is inacceptable in the place of the 3SG.ABS clitic. Panará clitics are described in detail in §3.4.

(33) a. Rê= s= anpun inkjêê-mẽra.
1SG.ERG 3.ABS see woman-PL
'I saw women.' (el)

b. Rê= r= anpun inkjêê-mẽra.
1SG.ERG 3PL.ABS see woman-PL
'I saw women.' (el)

(34) a. Rê= s= anpun inta.
1SG.ERG 3.ABS see rain
'I saw (the) rain.' (el)

b. *Rê= r= anpun inta.
1SG.ERG 3PL.ABS see rain
Intended: 'I saw rains.' (el)

The available data suggest that Panará nouns present a countability distinction that emerges when we look at the morphosyntactic properties of number morphology. This is a matter that will be pursued further in order to ensure that such a distinction in fact exits and to narrow down the most reliable diagnostics for countability in Panará.

2.2.1.2 Verbs

Delimiting what words belong to the class of verbs is not self-evident if we adopt an approach rooted on semantic intuitions. Any lexical root that is integrated in the syntax as the head of a finite predicate is a verb and as such is sensitive to the category of mood. Panará marks mood with a modal clitic at the beginning of the verbal complex, and a suffix on the verb. Modal clitics are presented in table 2.8.

	REALIS	IRREALIS
INTRANSITIVE	jy=	ka=
TRANSITIVE	∅	ka=

Table 2.8: Panará modal clitics.

Panará verbs also present inflection for mood, manifested as an alternation of vowels or consonants at the end of the root.

Verbal inflection

Panará verbal inflection was tentatively described as indexing aspect, with a perfective suffix *-ri~-ti*, by Dourado (2001: 30). However, Panará verbal inflection is better analyzed as manifesting a partially overlapping exponence of clause type and mood.

In the first place, some verb roots present a variation in the theme that corresponds to mood inflection. The examples in (35, 36) show the distinction for two verbs, *anpun* 'to see' and *krẽ* 'to eat.' In both cases, irrealis mood requires not only the modal clitic *ka* but also irrealis inflection of the verb.

(35) a. *Realis*
Inkjẽ hẽ rê= s= anpun Teseja.
1SG ERG 1SG 3SG see Teseja
'I saw Teseja.' (el)

b. *Inkjẽ hẽ rê= s= anpu**ri** Teseja.
1SG ERG 1SG 3SG see Teseja
'I saw Teseja.' (el)

c. *Irrealis*
Pykkôômã ka= ∅= s= anpu**ri** Teseja.
tomorrow IRR 1SG 3SG see Teseja
'Tomorrow I will see Teseja.' (el)

d. *Pykkôômã ka= ∅= s= anpun Teseja.
tomorrow IRR 1SG 3SG see Teseja
'Tomorrow I will see Teseja.' (el)

(36) a. *Realis*
Inkjẽ hẽ rê= ∅= krẽ tepi.
1SG ERG 1SG.ERG 3SG.ABS eat fish
'I eat fish.'

b. *Inkjẽ hẽ rê= ∅= krẽ**jn** tepi.
1SG ERG 1SG.ERG 3SG.ABS eat fish
'I eat fish.' (el)

c. *Irrealis*
Inkjẽ hẽ ka= ∅= ∅= krẽ**jn** tepi.
1SG ERG IRR 1SG.NOM 3SG.ACC eat fish
'I will eat fish.' (el)

d. *Inkjẽ hẽ ka= ∅= ∅= krẽ tepi.
1SG ERG IRR 1SG.NOM 3SG.ACC eat fish
'I will eat fish.' (el)

The actual shape of the realis and irrealis verb forms appears to be unpredictable to an extent: there is realis *anpun* and irrealis *anpuri* 'to see,' but we also see an invariable *pĩri* 'kill.' The only consistent generalization at this point for the verbs that show this inflection is that the irrealis form is the realis form as a base with the addition of some phonological material, either a coda or a syllable (37).

(37) *Irrealis inflection:*
base + /C(i)/

Some verbs are shown in (38) with their realis and irrealis inflected forms. As can be seen, transitive and intransitive verbs alike can present this alternation, and some overlap exists in the paradigm across different verbs.

(38) *Realis – irrealis*

a. anpun – anpuri, 'to see'
b. kââ/kââj – kâri, 'to scream'
c. krẽ – krẽjn, 'to eat'
d. mẽjn – mẽẽri, 'to throw'
e. mõri – mõri, 'to run, to go'
f. pĩri – pĩri, 'to kill'
g. pẽẽ – pẽẽjn, 'to say'
h. rõwa – rõwari, 'to kill'
i. sâri – sâri, 'to breathe'
j. sõri – sõri, 'to give'
k. tẽ – tẽri, 'to leave, to fall'
l. too – tooj, 'to fly, to dance'

At this stage, I do not commit to a compositional analysis of mood morphology, representing it only as theme alternations rather than identifying independent suffixes.

A second distinction is inflection for clause type. Panará verbal inflection also marks a distinction between paratactic constructions (39a) and hypotactic constructions (39b).

(39) a. [ ] [(-ri)]

b. [[-ra]]

While irrealis inflection is associated with an /i/ vowel, inflection for dependent clause corresponds instead to an /a/ vowel in the inflectional suffix (40, 41). For the sake of clarity, clausal boundaries are indicated in these examples.

(40) a. [Rê= ∅= wajã**ri** issê].
1SG.ERG 3SG.ABS make bow
'I made a bow.' (el)

b. *[Rê= ∅= wajã**ra** issê].
1SG.ERG 3SG.ABS make bow
'I made a bow.' (el)

c. [Ka hẽ ka= ra= pêê= ∅= pyri [issê rê=
2SG ERG 2SG.ERG 1SG.ABS MAL 3SG.ABS take bow 1SG.ERG
∅= wajã**ra**]].
3SG.ABS make
'You stole from me the bow that I made.' (el)

d. *[Ka hẽ ka= ra= pêê= ∅= pyri [issê rê=
2SG ERG 2SG.ERG 1SG.ABS MAL 3SG.ABS take bow 1SG.ERG
∅= wajã**ri**]].
3SG.ABS make
'You stole from me the bow that I made.' (el)

(41) a. [[Patty hẽ ti= ∅= pĩ**ra** swasĩrã] rê= ∅=
Patty ERG 3SG.ERG 3SG.ABS kill peccary 1SG.ERG 3SG.ABS
ku= krẽ].
chew eat
'I ate the peccary that Patty killed.' (el)

b. *[[Patty hẽ ti= ∅= pĩ**ri** swasĩrã] rê= ∅=
Patty ERG 3SG.ERG 3SG.ABS kill peccary 1SG.ERG 3SG.ABS
ku= krẽ].
chew eat
'I ate the peccary that Patty killed.' (el)

Panará verbal inflection is clearly connected to the traditionally called "long forms" of Jê verbs, a pervasive trait in all languages in the family (see ch. 3

for a discussion). In Jê languages, verbs are required to appear in a long form in two broad contexts, dependent clauses and TAM-marked clauses.

While the precise TAM categories that require a verb to appear in its long form are arbitrary to an extent across the languages in the family (e.g. aorist tense in Xavante, future tense in Kĩsêdjê and Tapayuna, perfective aspect in Mẽbêngôkre), dependent clauses always require a verb to appear in its long form. Jê long forms of verbs, especially in Northern Jê, have an unpredictable shape that consists of the short form plus a consonantal coda, exemplified in (42) for Mẽbêngôkre.

(42) *Short – long*

a. bĩ – bĩr, 'to kill

b. ŋgrɛ – ŋgrɛr, 'to dance'

c. ɲũ̃ – ɲũ̃r, 'to sit'

d. omũ – omũɲ, 'to see'

Panará irrealis and dependent verb forms are to all evidence a retention of Jê long forms, which in Panará grammaticalized into more systematic paradigms to expone mood and clause type. Panará verbs can appear in four shapes, summarized below:

- /-V/ open syllable form (e.g. *too*)
- /-C/ coda form (e.g. *mẽjn* [mɛ̃jŋ ~ mɛ̃jɲ])
- /-Ci/ form (e.g. *tẽẽri*)
- /-Ca/ form (e.g. *pĩra*)

Necessarily, Proto-Panará presented at some point the classic short verbal and long nominal forms of verbs that all Jê languages have, before the distinction was lost. We also know that Panará lost most consonantal codas and developped phonological vowel length as a result (§2.1.2), illustrated in (43).

(43) *par > paa 'foot' *pur > puu 'field'

*pa > pa 'arm' *pu > pu 'full'

As seen in §2.1.3, only nasal and approximant codas are allowed (44).

(44) /sswɯn/ → [isswɯŋ] 'bird' /kjɯt/ → [kjɯ·ti] *[kjɯt] 'tapir'

My proposal for the diachronic emergence of Panará verbal inflection is the following. In all evidence, when the distinction between verbal and nominal verbs collapsed in Panará, the short form was lost. Verbs retained the long form, which was reanalyzed in two ways, giving rise to two classes of verbs. In some verbs, the form with the coda was lexicalized as part of the root (45).

(45) 'to kill' /pĩr/ → [pĩr+i] (realis/irrealis)
[pĩr+a] (relative)

In other verbs, the coda was grammaticalized away from the root—it became an affix of the inflectional paradigm. Unless nasal or approximant, the ancestral "coda" can only surface if resyllabified as an onset consonant with the insertion of an epenthetic vowel [i] or the presence of a thematic vowel [a], as seen in (46).

(46) a. 'to kill' /rõwa/ → [rõwa] (realis)
[rõwa+**r**+i] (realis/irrealis)
[rõwa+**r+a**] (relative)

b. 'to fly' /too/ → [too] (realis)
[too+j] (irrealis)

The derivation of the two inflectional classes of Panará verbs, which in the present proposal revolve around the existence of roots that either retained or lost the ancestral coda of Proto-Panará long verbs, is sketched below:

- Realis matrix:
  - <-CV> root → CV
  - <-CVC> root → -CV or CV{n/j} or -CVC+i
- Irrealis:
  - <-CV> root → CV+C(+i)
  - <-CVC> root → CVC+i
- Realis relative:
  - <-CV> root → CV+C+a
  - <-CVC> root → CVC+a

The variation of Panará verbs with or without the inflectional ending (38) suggests that the entire system is in the process of settling into either an even more systematic paradigm, or already moving away from that and slowly losing the dictinctions. The diachrony of Panará verbal morphology, while beyond the scope of this dissertation, is most likely a key element for our understanding of the development of Northern Jê languages.

As I describe in detail in chapters 3 and 5, there is a crucial difference between Panará verbal forms and Jê verbal forms: in Panará, case marking is not conditioned by the verb's form. This sets Panará apart from the other Jê languages in that there is no case marking alignment split, that is, the case marking is uniformly ergative-absolutive.

Verb classes

It is possible to identify separate classes of verbs in Panará with language-internal criteria. An intrinsically intransitive verb is a verb that selects for one argument (47).

(47) Mãra jy= ∅= too.
3SG INTR 3SG.ABS leave
'He went away.' (obs)

The one argument of intransitive verbs appears in an unmarked form and is also cross-referenced with a clitic of the absolutive series next to the verb (§3.4.2). As for its position in the clause, the free nominal can appear both pre- and post-verbally, and it can also be omitted.

For verbs that prototypically depict a physical action performed by an agent upon a patient (48), the argument that corresponds to the patient coincides with the intransitive argument in its form: morphologically unmarked, free order with respect to the verb, head-marked with the absolutive clitic series. The agent argument is followed by a morpheme *hẽ* and is marked on the verb with the ergative clitic series.

(48) Mãra hẽ ti= ∅= kâri sõjoopy jĩ.
3SG ERG 3SG.ERG 3SG.ABS cut animal meat
'He cut the meat.' (el)

The question arises as to the correspondence between valence and transitivity. Panará has two modal proclitics that also present ergative properties. In irrealis clauses, the *ka* morpheme precedes any type of predicate. In realis

clauses, however, most intransitive verbs are usually marked with the *jy* proclitic (49), while transitive predicates lack an equivalent morpheme (50). Thus, *jy* alternates both with ergative noun phrases and transitive verbs.

(49) Jy= ∅= ty nãkãã jy= ∅= tâti.
INTR 3SG.ABS die snake INTR 3SG.ABS hard
'The snake died and became hard.' (txt)

(50) Mãra hẽ ti= ∅= kukwã kâjasâ Kuupêri jõ.
3SG ERG 3SG.ERG 3SG.ABS break knife Kuupêri POSS
'He broke Kuupêri's knife.' (el)

Divalent verbs that do not select for an ergative argument exist in Panará (51), other than monovalent verbs in which a postpositional oblique is indexed on the verb via a clitic (52).[6]

(51) Pôka jy= kãn= ∅= pẽẽ ka mã.
Pôka INTR 2SG.DAT 3SG.ABS speak 2SG DAT
'Pôka spoke to you.' (el)

(52) Jy= ra= ∅= ty mõsy inkjẽ pêê.
INTR 1SG.ABS 3SG.ABS die corn 1SG MAL
'My corn died.' (obs)

In divalent verbs that appear to be intransitive (51), indications of intransitivity are the consistent lack of an ergative subject, the presence of the realis-intransitive modal clitic *jy*, and the clitic paradigm used to double the argument noun phrase, namely the absolutive.

All trivalent verbs encountered so far involve a dative participant (53), the same type of participant that we find in intransitive divalent verbs.

(53) a. Swankja tân kjãrãsâ hẽ ti= ra= ∅= sõri sâti
ancient TMP agouti ERG 3SG.ERG 3PL.ABS 3SGABS give peanut
swankja-ra-mẽrân.
ancient-NMLZ-PL.DAT
'A long time ago, the agouti gave peanuts to the ancients.' (txt)

b. Toopytun hẽ kjẽ= ∅= sõri issê inkjẽ mã.
old.man ERG 1SG.DAT 3.ABS give bow 1SG DAT
'The old man gave me a bow.' (el)

6. See the discussion on *postposition-doubling* in §4.2.

For all classes of verbs, a general property that separates verbs from other word classes is the presence of the preverbal bound morphology forming a polysynthetic verb complex. Its configuration is described and explored throughout this dissertation.

2.2.1.3 Adjectives

Adjectives differ from nouns on the basis of their quantification. Since appositions are common in Panará (54), distribution is not a reliable diagnostic for distinguishing adjectives from nouns. In other words, relying on distribution inside of the noun phrase alone would suggest that a separate class of adjectives does not exist.

(54) Rê= ∅= kwajãri inkjẽ-mẽrân swankja-rân.
1PL.ERG 3SG.ABS make 1SG-PL.ERG ancient-NMLZ.ERG
'That's what we did us ancients.' (txt)

Where nouns and adjectives differ is in their quantification. Two different quantifiers target either class of words: *inkjêti* 'a lot' is used exclusively with nouns, while *pytinsi* 'very' is used with adjectives (55).

(55) a. Issê pytinsi inkjẽ pjuntwêê tân.
fast very 1SG young TMP
'I was very fast when I was young.' (txt)

b. Rê= kjẽ= ∅= sũũ inkjẽ mã sâkjâri wy
3PL.ERG 1SG.DAT 3SG.ABS tell 1SG DAT tortoise.feast large
pytinsi.
very
'They told me that my tortoise festivity would be very big.' (txt)

c. Rê= s= anpun mõsy inkjêti.
1SG.ERG 3SG.ABS see corn lot
'i saw a lot of corn.' (el)

d. Tepi inkjêti rê= ∅= mĩri kjê amã.
fish lot 1SG.ERG 3.ABS cook fire INES
'I cooked a lot of fish in the fire.' (txt)

Unlike verbs, adjectives predicate a property without projecting a finite predicate, meaning that clitics and other verb complex morphology is absent from adjectives. This is clearly seen with roots like *toopytun*, meaning 'old man / chief' as a noun or adjective, and 'old [male]' as a verb (56).

(56) a. *Noun*
Toopytun jy= ∅= too.
old.man INTR 3SG.ABS leave
'The old man went away.' (txt)

b. *Noun (apposition)*
Inkjẽ toopytun jy= ra= pôô.
1SG old.man INTR 1SG.ABS arrive
'I the old man I'm here.' (obs)

c. *Adjective*
Inkjẽ toopytun.
1SG.ABS old.man
'I'm a chief / an old man.' (el)

d. *Verb*
Jy= ra= toopytun.
INTR 1SG.ABS old.man
'I'm an old man.' (obs)

A lexical root like *wy* 'large' can also appear either as a verb, with the morphological verb complex, or without it as an adjective (57).

(57) a. *Verb*
Ka= ti= ∅= wy.
IRR NSPK NADRE large
'It will become big.' (obs)

b. *Adjective*
Kri wy pytinsi.
village large very
'The village is very big.' (txt)

Thus, quantification serves as a reliable diagnostic to make a distinction between nouns and adjectives, while the absence of a verb complex distinguishes adjectives from verbs.

2.2.2 Closed classes

This section presents a brief overview of Panará closed classes. These include determiners, postpositions, pronouns, and quantifiers.

2.2.2.1 Determiners

Panará has no definite or indefinite determiners. Instead, it has a small class of demonstrative determiners, that can also double as demonstrative pronouns (58).

(58) a. ja 'this'
(proximal to speaker and addressee)

b. mãja 'this'
(proximal to speaker)

c. mãmã 'that'
(distal from addressee)

d. mãra 'that'
(distal from speaker)

The correspondence of Panará demonstratives to specific deictic notions is inferred from their distribution in spontaneous speech. Elicitation work in the near future will allow for a better understanding of Panará deixis.

2.2.2.2 Postpositions

Panará has a closed class of adpositions that appear to the right of the last element of the complement of the adposition. Panará postpositions indicate various semantic relations, including place, time, cause, goal, means or source, among others.

All postpositions are morphologically simple. Some postpositions appear more than once because of the different semantics that they can present. In a subsequent section (§4.2.1) I discuss the details of these instances of polysemy/homophony.

2.2.2.2.1 Ablative

The ablative postposition *pêê* expresses source. It is used for both directional motion and temporal sequenciality and indicates that an entity X undergoes a transition from Y (to Z).

(59) Jy= ∅= sũkwâ mũ pêê.
INTR 3SG.ABS descend high ABL
'She came down from high up.' (txt)

(60) Pĩsasâ jõ inkô pêê jy= py= ra= ho= ∅= too
Pĩsasâ POSS water ABL INTR ITER 1SG.ABS INS 3SG.ABS leave
kukre tõ tã.
house other ALL
'She left with me from the Pĩsasâ river to another village.' (txt)

The ablative is used in a PP containing the proximal determiner *mãmã* 'this' to express temporal coordination of clauses.

(61) Rê= ho= ∅= jôti mãmã pêê ∅= ho= ra=
1SG.ERG CAUS 3SG.ABS carry this ABL 3SG.ABS INS 1PL.ABS
pôô kri tã tititi ho.
arrive village ALL armadillo INS
'I loaded the armadillo [on my back] and (then) I went to the village with it.' (txt)

(62) Mãmã pêê rê= s= akôri, rê= s= akôri, mãmã
this ABL 1SG.ERG 3SG.ABS blow 1SG.ERG 3SG.ABS blow this
pêê jy= ∅= ty. Jy= ∅= ty nãkãã.
ABL INTR 3SG.ABS die INTR 3SG.ABS die snake
'Then I blew at it, I blew at it, and it died. The snake died.' (txt)

2.2.2.2.2 Adessive

The adessive postposition *rahã* expresses geographical or temporal location. It indicates that an entity X is at a location in space or time Y.

This postposition presents some allophony. Depending on the segment preceding it, the adessive will usually surface as either [rahã] following a stressed vowel, [ahã] following a consonant, or [hã] following an unstressed vowel.

(63) Mãmã pêê jy= ∅= kwy suasêrĩ hã haty tã.
CNJ ABL INTR 3SG.ABS go hunt ADES forest ALL
'Then he went hunting in the forest.'

(64) Jakjô jy= ∅= sĩri pâritoti hã.
Jakjô INTR 3SG.ABS sit chair ADES
'Jakjô is sitting on the chair.' (el)

(65) a. Pjãn rahã ka= ∅= py= tẽri inkjẽ?
Q ADES IRR SPK DIR leave.IRR 1SG
'When am I going to leave?' (el)

b. Aka-anka hã ka= ti= py= a= tẽri.
day-bad ADES IRR NSPK DIR ADRE leave.IRR
'You'll go away on saturday.' (el)

The adessive is used in a somewhat lexicalized PP *puu ahã*, literally 'at the field(s)' with a meaning of 'far' or 'far away.'

(66) Puuahã jy= ∅= pêê= ∅= ho= ∅=
field.ADES INTR 3SG.ABS MAL 3SG.ABS INS 3SG.ABS
too, tijãri.
fly EV
'He flew far away with it in his detriment, they say.' (txt)

(67) Inkjoo, puuahã pjoo. Yriẽ.
NEG field.ADES NEG near
'No, it's not far. It's close.' (obs)

2.2.2.2.3 Allative

The allative postposition *tã* expresses direction to a goal. It indicates that an entity X undergoes a transition (from Y) to Z. It is the goal-focused counterpart of the source-focused ablative.

(68) Jy= ra= kwy inkô tã.
INTR 1SG.ABS go water ALL
'I'm going to the river.' (obs)

(69) Mãmã pêê nanpju jy= ∅= tẽẽ kypa tã.
this ABL blood INTR 3SG.ABS fall ground ALL
'Then the blood fell to the ground.' (el)

(70) ∅= ho= ra= pôô kri tã, nẽ= ∅= kuri
3SG.ABS INS 1PL.ABS arrive village ALL 1PLERG 3SG.ABS eat
pâtiti.
anteater
'We brought it back to the village and we ate the anteater.' (txt)

2.2.2.2.4 Comitative

The comitative postposition *kõõ* expresses accompaniment. It indicates that an entity X performs an activity that entity Y also performs.

(71) Ka-ra jy= mẽ= a= kwy inkjẽ kõõ.
2SG.DU INTR DU 2SG.ABS go 1SG COM
'You two went with me.' (obs)

(72) Ka ka= ti= ra= kõõ= a= kwy inkjẽ kõõ.
2SG IRR NSPK 1SG.ABS COM ADRE go 1SG COM
'You will go with me.' (el)

(73) Japjara jy= ra= tĩri, inkjẽ-mẽra nãpjâ-mẽra kõõ.
PAU INTR 1PL.ABS live 1SG-PL mother-PL COM
'A few of us survived, us with our mothers.' (txt)

2.2.2.2.5 Comitative-locative

The comitative-locative postposition *tân* expresses accompaniment at a location. It indicates that an entity X performs an activity with entity Y at a location of Z that usually has a connection with Y.

(74) Rê= tân= ∅= kuri kjãpo amã tepi Jõsã tân.
1SG.ERG COM 3SG.ABS eat manioc.bread INES fish Jõsã COM
'I ate fish bread with Jõsã.' (el)

2.2.2.2.6 Desiderative

The desiderative postposition *sân* expresses desire or need. It indicates that an entity X wants Y.

(75) a. Pjãn sân jy= a= kwy?
Q DES INTR 2SG.ABS go
'What are you going for?' (obs)

b. Jy= ra= kwy? pĩ sân.
INTR 1SG.ABS go firewood DES
'I'm going in order to get wood.' (obs)

(76) Inkjêê-mẽra jy= ra= pôô nãnkâ sân.
woman-PL INTR 3PL.ABS arrive bead DES
'The women came for the beads.' (obs)

2.2.2.2.7 Essive

The essive postposition *tân* expresses a time during which an event happened. It is used to indicate a point X in time.

(77) Swankja tân kiãrãsâ hẽ ti= ra= s= õri sâti
ancient ESS agouti ERG 3SG.ERG 3PL.ABS 3SG.ABS have peanut
swankiaramẽrân.
ancient-PL.DAT
'A long time ago, the agouti gave peanuts to the ancients.' (txt)

(78) Sasê pjoo, inkjoo, ippẽ pa rõ tân.
hammock NEG NEG stranger walk NEG ESS
'We had no hammocks, no, when there were no white people.' (txt)

(79) Prĩ tân jy= ra= pêê ∅= ty inkjẽ topjâpjâ tũn
short ESS INTR 1SG.ABS MAL 3SG.ABS die 1SG grandfather old
Kâkjori.
Kâkjori
'When I was a child my old grandfather Kâkjori died.' (txt)

2.2.2.2.8 Final

The final postposition *rahê* expresses a goal or objective. It indicates that an entity X performs an action with the objective of Y.

The phonological context in which this postposition appears determines its allomorphy, which can surface as [rahê~jahê] following a vowel or [ahê] following a consonant or unstressed epenthetic vowel.

(80) Mãmã pêj jy= ra= mõri inpy-ara mẽ inkj-ara
this ABL INTR 3PL.ABS walk.PLAC man-PL and woman-PL
rê= ra= mĩri ahê.
3PL.ERG 3SG.ABS bury FIN
'Then the men and women came back to bury them.' (txt)

(81) Rê= sê= sunswâ swâsi tepi ahê.
1PL.ERG CLF carry serrated.arrowhead fish FIN
'We used serrated arrowheads to catch fish.' (txt)

(82) Asâ pytinsi mĩ sakua pôkwy ti= ra= kâri ahê.
fierce very caiman mouth open 3SG.ERG 3PL.ABS bite FIN
'The alligator is very nasty, the mouth open to bite.' (txt)

2.2.2.2.9 Inessive

The inessive postposition *ramã* expresses location. It indicates that an entity X is located inside a space or substance Y.

Like the adessive postposition *rahã*, inessive *ramã* presents some allophony. It can also surface in contextually conditioned reduced forms like [jamã] or [amã].

(83) Nãsisi mĩ issy amã kjãpo amã.
sweet caiman fire INES manioc.bread INES
'Caiman is tasty roasted or baked with manioc bread.' (txt)

(84) Nẽ= ∅= mĩri kjê amã, nẽ= ∅= kuri
1PL.ERG 3SG.ABS cook fire.pit INES 1PL.ERG3SG.ABS eat armadillo
tititi.

'We cooked it in the fire pit, we ate the armadillo.' (txt)

(85) Jy= r= ampju Pisankô jõ inkô amã.
INTR 1SG.ABS blood Pisankô POSS water INES
'I bled in the Pisankô river.' (txt)

2.2.2.2.10 Instrumental-comitative

The instrumental-comitative postposition *ho* expresses an instrument or accompaniment. It indicates that an entity X performs an action by means of Y, or with the company of Y.

(86) Nankã rê= ∅= ho= ∅= pari inkjẽ hẽ kãrijô
snake 1SG.ERG 3SG.ABS INS 3SG.ABS kill.PLAC 1SG ERG tobacco
ho.
INS
'I killed a snake with tobacco.' (txt)

(87) Jy= ∅= ho= ∅= pan tijãri nãsôô tepi ho, jy=
INTR 3SG.ABS INS 3SG.ABS walk EV black.vulture fish INS INTR
∅= ho= ∅= pôô.
3SG.ABS INS 3SG.ABS arrive
'The black vulture was carrying the fish, he went back with it.'

(88) Inkjẽ sipjâ jy= ∅= ho= ∅= pôô pakwa ho pyti-ra.
1SG wife INTR 3SG.ABS INS 3SG.ABS arrive banana INS one-DU
'My wife brought two bananas.' (el)

2.2.2.2.11 Locative-inessive

The locative-inessive postposition *kra* expresses location inside a physical container. It indicates that an entity X is inside of a container Y.

(89) Uwân ∅= sĩ kukre kra.
there 3SG.ABS sit house LOC-IN
'He's sitting there inside the house.' (el)

(90) Kunpasa ∅= pan pâri kra.
squirrel 3SG.ABS walk tree LOC-IN
'The squirrel lives inside the tree.' (obs)

(91) Rê= mã= ∅= watoo sõsêê swa tepi mã, rê=
1PL.ERG 3SG.DAT 3SG.ABS throw fishing.line tooth fish DAT 1PL.ERG
sê= ∅= sĩri pârikâ kra.
CLF 3SG.ABS place canoe LOC-IN
'They threw the fishing hook to the fish, they put it in the canoe.'
(Dourado 1993: 45)

2.2.2.2.12 Locative

The locative postposition *nĩ~rĩ* expresses location. It indicates that an entity X is located in a contained or open space Y.

(92) Aty rĩ ra= paapẽ panãra.
forest LOC 1PL.ABS live Panará
'Us Panará used to live in the forest.' (txt)

(93) Joopyjypo rĩ jy= ra= teppi jy= r= anpju rêjãri.
Joopyjypo LOC INTR 1SG.ABS strong INTR 1SG.ABS blood EV
'In Joopyjypo I grew up and I had my period.' (txt)

(94) Inkĩn ja hã Nãsepotiti rĩ pãpã.
good this ADES Nãsepotiti LOC all
'We're all good in Nãsepotiti.' (fb)

2.2.2.2.13 Malefactive

The malefactive postposition *pêê* expresses detriment. It indicates that an event takes place against X's will or interest. The malefactive is homophonous with ablative *pêê*.

(95) Nẽ= ∅= pêê= ∅= pyri nãsôô pêê issy.
3PL.ERG 3SG.ABS MAL 3SG.ABS take black.vulture MAL fire
'They took the fire from the black vulture.' (txt)

(96) Kwakriti jy= ra= pêê= ∅= ty inkjẽ pêê.
spider-monkey INTR 1SG.ABS MAL 3SG.ABS die 1SG MAL
'The spider-monkey died on me.' (el)

(97) Tepakriti hẽ ti= ra= pêê= ∅= pyri kâjasâ inkjẽ
Tepakriti ERG 3SG.ERG 1SG.ABS MAL 3SG.ABS take machete 1SG
pêê.
MAL
'Tepakriti stole my machete.' (el)

2.2.2.2.14 Perlative

The perlative postposition *kõõ* expresses the path of a movement. It indicates that entity X is moving along path Y.

(98) Nẽ= ∅= kõõ= ∅= kre tôrinsi kõõ.
1PL.ERG 3SG.ABS PER 3SG.ABS hole giant.armadillo PER
'We dug after the giant armadillo.' (txt)

(99) Ikjyti kõõ ra= pan, rê= pa-ri.
tapir PER 3PL.ABS walk 3PL.ERG kill-PRF
'We would go after a tapir, we would kill it.' (txt)

(100) Ja mẽ rê= ∅= ho= ∅= pari *Peixoto* kõõ,
this and 1SG.ERG 3SG.ABS INS 3SG.ABS kill.PLAC Peixoto PER
Peixoto jõ inkô kõõ.
Peixoto POSS water PER
'With them I killed it[7] along the Peixoto, along the Peixoto river.'

2.2.2.2.15 Possessive

The possessive postposition *jõ* expresses alienable possession. It indicates that X is possessed by Y. For a discussion on inalienable and alienable types of possession in Panará see §5.1.4.

(101) Swankjara jõ inpe ka= ∅= ∅= sũũ inkjẽ hẽ.
ancient POSS true IRR SPK 3SG.ABS say 1SG ERG
'I will tell a true story of the ancients.' (txt)

(102) Inkjẽ hẽ rê= ∅= kukwân inkjẽ jõ kâjasâ
1SG ERG 1SG.ERG 3SG.ABS break 1SG POSS machete
'I broke my machete.' (el)

(103) Inkjẽ jõ inkwa rĩ Pâriwysã.
1SG POSS home LOC Pâriwysã
'In my home [village] Pâriwysã.' (txt)

When not immediately to the right of the possessed phrase, the possessive postposition is inflected for third person with the reduced absolutive paradigm (§3.4.2.2). Non-contiguous possession is illustrated in (104).

(104) –Ju rĩ Mĩkre?
Q LOC Mĩkre
'Where is Mĩkre?' (obs)
–Uwa hã ∅= pan, sõ inkwa rĩ.
there INES 3SG.ABS walk 3SG.POSS home LOC
'He's there, in his house.' (obs)

7. Referring to a fishing method whereby the fishermen hit (in Panará 'kill') a poisonous vine in the river, so that the released poison stuns the fish and they become easier to catch.

2.2.2.2.16 Purposive

The purposive postposition *suu* expresses purpose. It indicates that an entity X does an action with the goal of obtaining Y. Unlike desiderative *sân*, final *suu* does not convey a want for the objective of the action.

(105) Jy= ra= kwy aty tã inkwa suu.
INTR 1SG.ABS go forest ALL log PURP
'I went to the forest to get a log.' (txt)

(106) Jy= ra= pôô Kânko suu.
INTR 1SG.ABS arrive Kânko PURP
'I came looking for Kânko.' (obs)

(107) Mãmã pêê jy= ∅= ho= ∅= kwy nãnpen suu aty
this ABL INTR 3SG.ABS INS 3SG.ABS go honey PURP forest
tã.
ALL
'Then he went with her to get honey in the forest.' (txt)

Postpositions play a direct role in the morphosyntax of participants in Panará, as I discuss in detail in a subsequent chapter on oblique participants (§4.2).

2.2.2.3 Pronouns

In Panará, participants are indexed anaphorically by two different paradigms: strong pronouns and pronominal clitics. Strong pronouns appear in the clause with the same distribution that full noun phrases present (108a, 108b), and can be omitted just as easily (108c).

(108) a. Pôka hẽ ti= ∅= sisyri mâra.
Pôka ERG 3SG.ERG 3SG.ABS hit-PRF 3SG
'Pôka hit him.' (el)

b. Mâra hẽ ti= ∅= sisyri Pôka.
3SG ERG 3SG.ERG 3SG.ABS hit-PRF Pôka
'He hit Pôka.' (el)

c. Jy= py= ra= kwy.
INTR DIR 1SG.ABS go
'I'm leaving.' (obs)

Pronominal clitics encode participants in the clause, both arguments and adjuncts. These are bound morphemes that must occur inside the verb complex immediately before the predicate head, as can be observed in the preceding examples. Pronominal clitics are optional to a degree, as (109) illustrates. However, they usually do appear.

(109) Pukjora hẽ (ti=) ku-ri apjã.
Pukjora ERG (3SG.ERG) eat-PRF turtle
'Pukjora ate a turtle.' (obs)

Panará is traditionally considered to present a mood-based alignment split in the distribution and shape of pronominal clitics (Dourado 2001). For a the discussion, see chapters 3 and 5.

Interrogative and relative pronouns

Finally, Panará has a set of three interrogative pronouns: *prẽ* for persons, *pjãn* for animals or inanimate entities, and *ju* for notions like temporality or location. As seen in (110b), they can also coexist with the interrogative morpheme *a*.

(110) a. Prẽ jy= s= õti?
who INTR 3SG.ABS sleep
'Who is sleeping?'

b. Prẽ a s= õti?
who Q 3SG.ABS sleep
'Who is sleeping?'

(111) Pjãn ka= wajã-ri?
what 2SG.ERG make-PRF
'What are you doing?'

Both *prẽ* and *pjãn* can also be used as interrogative determiners (112) and relative pronouns (113), although the use of externally headed relative clauses appears to be very limited in spontaneous speech.

(112) Pjãn aka hã ka= ti= py= ∅= pôô-ri mara?
what day ADES IRR NSPK DIR NADRE arrive-PRF 3SG
'What day will he/she come back?'

(113) Prẽ jy= pôô, mãra inkjẽ jũnpjâ.
who INTR arrive 3SG 1SG father
'The one who arrived is my father.'

2.2.2.4 Quantifiers

Historically, Panará does not have what could be properly described as a set of numerals. Very reduced inventories of numerals are not an uncommon feature in Amazonian languages (Epps et al. 2012).

(114) a. pyti
one

b. pyti-ra
one-DU (two)

c. nõpjõ
few

d. inkjêti
many

As can be observed quite straightforwardly, the numeral for 'two' consists of *pyti* 'one' inflected for dual number. It is therefore not really a different numeral. Based on this information, the argument can be made that Panará lacks a class of numerals altogether and, instead, the words in (114) are quantifiers.

Although through schooling and literacy workshops Portuguese numerals have been translated into Panará (*nõpjõ* 3, *inkjêtaja* 4, *inkjêtinkja* 5, *inkjêtinkjêti* 6+), numerals bigger than two or three are virtually always said in Portuguese.

2.3 Negation

This section describes the different negation markers in Panará. Panará presents a complex system of negation strategies, succinctly covered by Dourado (2001, 2007).

The categorical negator *nkioo* [iŋkjɔ:] is used to negate an entire predicate (115). Consistently, it is the negative counterpart of affirmative [paa ~ haa ~ ŋaa] as a response to yes-no questions (116–117).

(115) a. Inkjoo, jy= ∅= pôô pjoo kri tã.
no INTR 3SG.ABS arrive NEG village ALL
'No, he didn't come to the village.' (txt)

b. Ti= ra= nsari pjoo. Kjoo.
3SG.ERG 1SG.ABS bite NEG no
'It did not bite me. No.' (txt)

(116) a. Ju rĩ pan ka? Guarantã?
what LOC walk 2SG Guarantã
'Where are you? In Guarantã?' (fb)

b. Inkjoo, Casai Peixoto rĩ ra= pan.
NEG house Peixoto LOC 1SG.ABS walk
'No, I'm at the house in Peixoto.' (fb)

(117) a. A jy= a= inkin ka?
Q INTR 2SG.ABS good 2SG
'Are you good?' (obs)

b. Paa, inkin pytinsi.
yes good very
'Yes, very good.' (obs)

The favoured strategy to negate phrases appears to be the negative adverb *pjoo* [pjɔ:] (118).

(118) Inkjẽ hẽ rê= k= anpun pjoo ka.
1SG ERG 1SG.ERG 2SG.ABS see NEG 2SG
'I didn't see you.' (el)

It can also be the head of a finite clause, with a meaning that appears roughly equivalent to *to finish* (119).

(119) Kjẽtowajĩ jy= ∅= titi jy= ∅= pjoo.
candle INTR 3SG.ABS burn INTR 3SG.ABS NEG
'The candle turned off.' (el)

(120) Inkjẽ-mẽra nẽ= ∅= kuri mĩ sõ jy= ∅= pjoo rahã.
1SG.PL 1PL.ERG 3SG.ABS eat alligator food INTR 3SG.ABS NEG ADES
'We eat alligator when we run out of food.' (txt)

A less common adverbial negator is *rõ*. Dourado (2007) reports *rõ* [rõ ~ nõ] as being exclusively a noun phrase negator (121).

(121) Pinpjâ rõ.
husband NEG
'Single (woman).' (obs)

However, *rõ* also occurs negating bigger constituents within its scope, such as clauses (122).

(122) a. Aka-swa hã Perankô jy= ∅= kwy rõ swasêri tã.
day-tooth ADES Perankô INTR 3SG.ABS go NEG hunt ALL
'Yesyerday Perankô didn't go hunting.' (el)

b. Panãrã rê= ∅= pêê= ∅= pjori ippẽ pêê jy= ∅= nkjâ rõ ahê.
panará.ERG 3PL.ERG 3SG.ABS MAL 3SG.ABS close enemy MAL INTR 3SG.ABS enter NEG FIN
'The Panará closed it so white people wouldn't enter.' (txt)

In Panará, imperatives are formed with second person (123), as is usual in the world's languages (Bennis 2007).

(123) a. A= sĩ!
2SG.ABS sit
'Sit down!' (obs)

b. Py= mẽ= a= kwy!
DIR DU 2SG.ABS go
'Go away, you two!' (obs)

c. Ka= tõ= ∅= krẽ sâti.
2SG.ERG INTR 3SG.ABS eat peanut
'Do eat peanuts!' (obs)

To negate an imperative clause, *sã* stands in as the negative adverb, instead of *pjoo* or *rõ* (124).

(124) a. A= sĩ sã.
2SG.ABS sit NEG
'Don't sit down.' (el)

b. Ka= ra= jõkrepajô= kwâri sã!
2SG.ERG 1SG.ABS throat break NEG
'Don't break my throat!' (txt)

c. Ka= ∅= ku= krẽ sã sokriti.
2SG.ERG 3SG.ABS bite eat NEG pet
'Don't eat pets.' (obs)

Imperative negator *sã* is not attested in non-imperative clauses, and speakers appear to judge it unacceptable in those contexts.

2.4 Sentence typology

In Panará, sentences minimally consist of a verb. Verbs are preceded by a set of morphemes, rigidly ordered relative to one another, forming the Panará verb complex (125).

(125) Jy= py= ra= kwy.
INTR DIR 1SG.ABS go
'I'm leaving [on foot].' (obs)

The configuration of the verb complex is described in detail throughout this dissertation, especially participant cross-reference morphology. The rich structure of the Panará verb complex, unique in the Jê family, is characteristic of POLYSYNTHESIS:

> "Polysynthesis is not a homogeneous principle of language structure, but comprises a range of heterogeneous phenomena, such as polypersonalism, noun incorporation, verb root serialization, derivation, and affixation. As yet, there is no generally acknowledged definition of polysynthesis, and polysynthesis in the traditional understanding is rather a "feeling" than a clear-cut class" (Mattissen 2004: 189).

Verbal morphology in Panará presents aspects that are defining characteristics of polysynthetic languages as mentioned in the quotation above: polypersonalism—presenting cross-reference to more than one participant (126a); noun incorporation (126b); and verb serialization (126c).

(126) a. Jy= py= ra= kõ= mẽ= ra= tẽ.
INTR DIR 3PL.ABS COM DU 2SG.ABS leave
'The two of us are going away with them.' (obs)

b. Ka= ra= jõkrepajô= kwâri sã!
2SG.ERG 1SG.ABS throat break NEG
'Don't break my throat!' (txt)

c. Jy= ra= tẽ= ty.
INTR 1SG.ABS fall die
'I fainted.' (obs)

The verb complex also presents notions like directionality, iterativity, reflexives and reciprocals.

One of the characteristics of the grammar of Panará that stands out the most is its constituent order. Whereas in the other Jê languages we find a quite

strict verb-final order (Alves 2004; Nonato 2014; Oliveira 2005; Salanova 2007; see also ch. 3), Panará shows a much more free order of constituents.

(127) a. Kjẽntowajĩ jy= ∅= titi. [SV]
candle INTR 3SG.ABS burn
'The candle is burning.' (el)

b. Jy= ra= pôô inkjẽ. [VS]
1SG 1SG.ABS arrive 1SG
'I have arrived.' (obs)

c. Inkjẽ hẽ rê= s= unpa nãkãã. [SVO]
1SG ERG 1SG.ERG 3SG.ABS fear snake
'I'm scared of snakes.' (el)

d. Rê= s= apôpô tepi kjãpo amã. [VO]
1PL.ERG 3SG.ABS cook fish manioc.bread INES
'We prepared the fish in manioc bread.' (txt)

e. Nãkãã hẽ inkjẽ ti= ra= nsari. [SOV]
snake ERG 1SG 3SG.ERG 1SG.ABS bite
'A snake bit me.' (txt)

f. Jôriti inkjẽ hẽ rê= ∅= pĩri. [OSV]
c.peccary 1SG ERG 1SG.ERG 1SG.ABS kill
'I killed a collared peccary.' (el)

g. Joopy ti= ∅= pĩri toopytun hẽ. [OVS]
jaguar 3SG.ERG 3SG.ABS kill old.man ERG
'The old man killed a jaguar.' (el)

h. Ti= ∅= sisyri mãra, Pôka hẽ. [VOS]
3SG.ERG 3SG.ABS hit 3SG Pôka ERG
'*Pôka* hit him.' (el)

i. Ka= s= anpun ka hẽ mãra nãkãã. [VSO]
2SG.ERG 3SG.ABS see 2SG ERG 3SG snake
'You saw that snake.' (obs)

Not every single one of these combinations is attested with the same frequency (see §5.1). However, as can be seen in the examples above, Panará presents verb initial, verb medial and verb final configurations very often in both collected texts and during participant observation. Panará thus deviates

from the typological statement commonly known as Mahajan's generalization, after Mahajan (1994) and first pointed out by Trask (1979), according to which "SVO languages are never ergative. Ergativity is found only in verb final and verb initial languages" (Mahajan 1994: 318).

The freedom of order exhibited by Panará clauses, uncharacteristic of Jê languages, indicates that the postverbal position is not a dedicated one. It is in fact a default position for argument noun phrases. As for the preverbal position, it is clearly not associated with any specific argument. It is instead sensitive to discourse structure and information packaging. This is further discussed in chapter 5.

CHAPTER 3

The exponence of case in Jê languages

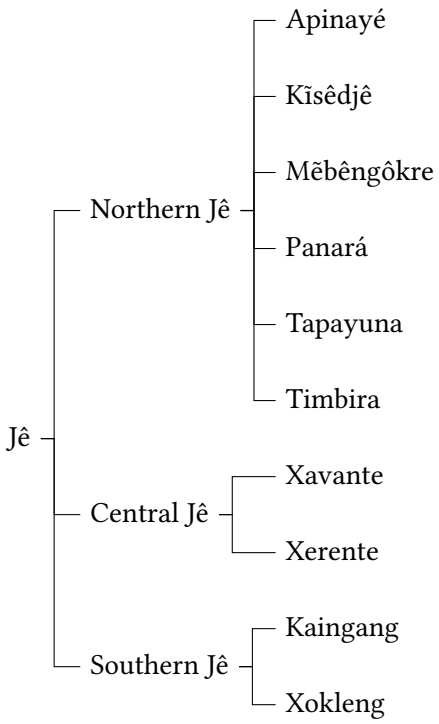
Introduction

The main goal of this dissertation is to focus on the morphosyntactic characteristics that make Panará an outlier within the Jê family: clause structure, polysynthetic morphology, and case marking alignment. This chapter focuses on the the patterns of case exponence in Panará and, by extension, in the rest of the Jê languages.

There are ten extant Jê languages, all of them spoken in a broad area from the center of Brazil to its southern states. Ergativity has long been considered a trait of the Jê family, shown in (128), and as such it has received a great deal of attention. Linguistic descriptions and theoretical analyses of Jê languages are still rare, especially for a language family of this size, which also includes some of the most spoken indigenous languages in Brazil. When compared to other families of an equivalent size, like the Tukanoan or Panoan families, the languages in the Macro-Jê extended family suffer from a chronic absence in the linguistic literature.

However, in the last decade there has been a small surge of linguistic work focused on the description and analysis of Jê languages, such that today there are more active Jê linguists than ever before. Although Jê languages are definitely still an understudied family, they are reasonably well known in terms of at least the grammar of agreement and case.

(128)



Internal classification of the Jê family.
Adapted from Davis (1966) and Rodrigues (1999).

This chapter focuses on the morphological marking of core cases in Jê languages. I describe the overt manifestation of case in the family and put forward a cross-linguistic comparative analysis. Although the discussion will be particularly focused on the Northern Jê branch, my goal is to also provide a complete overview of the entire family regarding the grammatical subsystem of case.

I start by reviewing case marking in Southern Jê languages (§3.1), and I continue with Central Jê (§3.2), especially Xavante, working my way up to a description of case marking in Northern Jê languages (§3.3), which includes a novel approach to agreement and case morphology in Panará (§3.4). After this overview, I present a detailed summary of case marking in Jê languages, and discuss the consequences of this comparison for our knowledge of case in the Jê family.

When reproducing data from secondary sources, I maintain the transcription provided by the original author. This can range from phonetic or phonological transcription to any version of existing or adapted orthography conventions for the language in question. Data collected by me, for Panará and Mẽbêngôkre, are written in the current orthography of these languages.

3.1 Southern Jê

The Southern Jê branch is composed of two extant languages, Xokleng and Kaingang, and an extinct language, Ingain († early 20th century) (Rodrigues 1999; Van der Voort & Ribeiro 2010). Xokleng is spoken in the state of Santa Catarina, in Southern Brazil. The Xokleng ethnic population is established as 2,020 individuals by the 2014 Sesai[1] census, although most of the younger generation are reported to be monolingual in Portuguese. The morphosyntax of case in Xokleng was described by Urban (1985).

Kaingang is a dialect continuum spoken in the states of Paraná, Rio Grande do Sul, Santa Caterina and São Paulo. Most of the population is established in the 32 Kaingang demarcated indigenous lands, although a significant number of them live in the neighbouring urban and rural areas. Kaingang is the most widely spoken Jê language, with an ethnic population of 45,620 according to Sesai in 2014. The vitality of the language is highly uneven across the various communities, some of which are virtually monolingual in Kaingang, while others have almost completely switched to monolingualism in Portuguese. For more complete accounts of Kaingang morphosyntax, see Wiesemann (1967, 1972).

The Ingain inhabited an area on the upper Paraná river, in what today are the Canindeyú province in Paraguay and the state of Paraná in Brazil, between the Ivytorocái and the Iguatemi rivers. Although the language still had a few speakers in the early 20th century, it became extinct and the Ingain population integrated completely into riverine, Kaingang and Nhandéva communities (Jolkesky 2010).

The Kimdá, their neighbours to the south, spoke a different variety of Ingain. They lived in an area that extended between the Argentinian province of Misiones and the river Monday, in the Alto Paraná department in Paraguay. In 1893 botanist Mosè Bertoni observed that their language was "almost extinct" (Bertoni 1916). The Kimdá were subsequently integrated into the local

1. *Secretaria Especial de Saúde Indígena*, a department in Brazil's Ministry of Health that manages medical support in indigenous areas.

Paraguayan population and they too have since ceased to identify as a separate ethnic group (Jolkesky 2010). No data beyond word lists are preserved for Ingain.

In this section I present a picture of the morphosyntax of case for the Southern Jê languages Kaingang and Xokleng from the descriptions in the available sources. As is common in the family, main clauses are rather strictly verb final in Southern Jê. Although there are a few elements that can occur in the postverbal position, these are very restricted. In Xokleng, they are limited to what Urban (1985) calls *postverbal predicating particles*, which encode aspect (active and stative for Urban), and first and second person pronominal forms that appear between the verb and the aspectual particle when non-focus (129).

(129) a. tẽ nũ mũ
go.ACT 1SG.NOM ACT
'I went.'
(Urban 1985: 169)

b. tẽ mã mũ
go.ACT 2SG.NOM ACT
'You went.'
(Urban 1985: 169)

c. ti pẽnũ nũ mũ
3SG shoot 1SG.NOM ACT
'I shot him.'
(Urban 1985: 170)

Subject noun phrases, on the other hand, either focus or non-focus, "can never occur in postverbal position" (Urban 1985) and occur instead preverbally, illustrated in (130a). Similarly, object noun phrases always appear in a preverbal position (130b). The same pattern also holds for Kaingang (131).

(130) a. kɔñŋəŋ tẽ wũ tẽ mũ
man DEF 3SG.NOM go.ACT ACT
'The man went.'
(Urban 1985: 170)

b. ti tɔ̃ ɛ̃ kuyan tɛ̃ kupe wã
3SG ERG his body DEF wash stative
'He is washing his body.'
(Urban 1985: 172)

(131) a. Ũnsĩ vỹ vẽnhva.
boy NOM run
'The boy ran.'
(Nascimento 2013: 8)

b. Ũnsĩ vỹ krẽkufár juján.
boy NOM fish catch
'The boy caught fish.'
(Nascimento 2013: 7)

Noun phrases are marked for case in a pattern that correlates with the postverbal aspectual markers present in the clause. Active clauses present an active form of the verb, and the case marking pattern is nominative-accusative. Stative clauses present a stative form of the verb that correlates with an ergative-absolutive case marking on the arguments.

In active intransitive clauses (132) the single argument of the verb, be it pronominal or a lexical noun phrase, is marked by a morpheme that agrees with it in person features (*nũ* 1.NOM, *mã* 2.NOM, *wũ* 3.NOM). In active transitive clauses (133), the same nominative morpheme marks the external argument of the verb, with the exception of non-focus first and second person pronouns, which appear in the postverbal position (129).

(132) a. tã wũ tɨ mũ
3SG 3SG.NOM die.ACT ACT
'He died.'
(Urban 1985: 173)

b. kɔñŋəŋ hã wũ tẽ mũ
man FOC 3SG.NOM go.ACT ACT
'It was the man who went.'
(Urban 1985: 168)

c. tẽ nũ mũ
go.ACT 1SG.NOM ACT
'I went.'
(Urban 1985: 169)

(133) a. tã wũ ti pɛnũ mũ
3SG 3SG.NOM 3SG shoot ACT
'He shot him.'
(Urban 1985: 176)

b. ẽñ hã nũ ti pɛnũ mũ
1SG FOC 1SG.NOM 3SG shoot ACT
'It was I who shot him.'
(Urban 1985: 168)

The nominative marker consistently never appears on the internal object of a transitive clause. As mentioned above, first and second person appear as pronominal enclitics when the noun phrase is not focused (132c). When the first or second person nominative noun phrase is focused, the nominative marker behaves like the third person *wũ* marker (133b), appearing in the preverbal area.

Besides the nominative marker itself, a nominative pattern of case marking is also indexed on the paradigm of pronouns that cross-reference the arguments in the clause. As seen above in (132-133), nominative arguments use a different pronominal paradigm from the one used with accusative arguments.

Contrary to the case marking pattern in active clauses, stative intransitive clauses lack both the nominative pronominal paradigm and the nominative marker on their single argument (134). The same pronominal paradigm that cross-references internal arguments of active transitive verbs is used with all arguments in stative clauses. Furthermore, stative transitive clauses present a different marker *tɔ̃* that canonically marks only the external argument (135), while the internal argument appears in the same bare unmarked form as the intransitive argument. Xokleng *tɔ̃* thus presents an ergative pattern in stative clauses.

(134) a. ti tẽŋ wã.
3SG go.STV STV
'He went.'
(Urban 1985: 170)

b. ti hã tel wã.
3SG FOC die.STV STV
'It was he who died.'
(Urban 1985: 167)

(135) a. ti tɔ̃ ti pɛnũ wã.
3SG ERG 3SG shoot STV
'He shot him.'
(Urban 1985: 176)

b. a hã tɔ̃ ti pɛnũ wã.
2SG FOC ERG 3SG shoot STV
'It was you who shot him.'
(Urban 1985: 167)

In Southern Jê languages, and Jê languages in general, pro-drop is available to all arguments. As such, external arguments of stative transitive verbs in Xokleng are marked with ergative *tɔ̃* regardless of the presence of an additional overt argument. A transitive verb with an elided internal argument (136a) contrasts with an intransitive verb like *wãñlən* "write" (137) that cannot take a direct object and whose single argument consistently lacks ergative marking.

(136) a. ti tɔ̃ kupe wã
3SG ERG wash STV
'He is washing.'
(Urban 1985: 172)

b. ti tɔ̃ ɛ̃ kuyan tɛ̃ kupe wã
3SG ERG his body DEF wash STV
'He is washing his body.'
(Urban 1985: 172)

(137) a. ti wãñlən wã
3SG write STV
'He is writing.'
(Urban 1985: 172)

The previous examples also illustrate the allomorphy of Xokleng verbal roots. Urban (1985: 73) describes a phenomenon by which certain verbs appear in an "active" form in the presence of the active postverbal particle *mũ*, and stative *wã* coocurs with a "stative" form of the verb (138). As mentioned earlier, active sentences present nominative-accusative case marking, and in stative sentences the case marking is ergative-absolutive.

(138) a. tã wũ tɨ mũ
3SG 3SG.NOM die.ACT ACT
'He died.'
(Urban 1985: 173)

b. ti tel wã
3SG die.STV STV
'He died.'
(Urban 1985: 173)

In Southern Jê, embedded clauses with stative aspect always present the "stative" form of the verb and the case marking follows an ergative pattern, as described by Urban (1985: 179) for Xokleng (139). In Kaingang the same distribution is attested (140).

(139) a. [ti tawi kũ] mã ti weŋ tɛ̃
3SG arrive.SG.STV CNJ 2SG.NOM 3SG see.ACT IMP
'When he arrives, you are going to see him.'
(Urban 1985: 179)

b. [ɛ̃ tɔ̃ uyol tãñ kɔlkũ] tã tawiŋ tɛ̃
coref. ERG tapir kill after 3SG.NOM arrive IMP
'After he kills the tapir, he is going to arrive.'
(Urban 1985: 179)

(140) a. [gĩr vẽnhvãg mũ] vỹ prẽr
boy run.LG ASP NOM shout
'The boy that ran shouted.'
(Tabosa & Santos 2013b: 302)

b. [pỹn tỹ mĩg prãg mũ] vỹ pẽngre tãnh
snake ERG jaguar bite.LG ASP NOM chicken kill
'The snake that bit a jaguar killed a chicken.'
(Tabosa & Santos 2013b: 302)

The morpheme that marks the external arguments of transtive verbs in Xokleng is also found in two other contexts, as pointed out by Urban (1985). First, instrumental adjuncts are also marked with *tɔ̃* (141).

(141) ti tɔ̃ mɛŋ tɔ̃ lãñlãñ wã
3SG ERG axe INS work STV
'He is working with an axe.'
(Urban 1985: 173)

Second, in stative clauses absolutive arguments acquire the ergative mark *tɔ̃* when displaced from their canonical preverbal position, as in (142).

(142) a. ãmɛ̃n lɔ ti tɛ̃ŋ wã
path along 3SG go.STV STV
'He went along the path.'
(Urban 1985: 172)

b. ti tõ ãmẽn lɔ tẽŋ wã
3SG ERG path along go.STV STV
'He went along the path.'
(Urban 1985: 172)

Table 3.1 presents the two paradigms of pronouns in Xokleng. For Urban, Xokleng presents one set of pronouns and one set of nominative markers that inflect for person. Here I adopt Wiesemann's (1986) view of both systems as pronominal in nature, for the sake of cohesion with the descriptions in the rest of the chapter. The form called *absolutive* is the less specified one, appearing as the object of adpositions and as the base that is marked with case morphology for accusative and ergative. Nominative pronouns show a different form.

	ABSOLUTIVE	NOMINATIVE
1SG	ẽñ	nũ
2SG	a	mã
3SG.M	ti	tã wũ
3SG.F	di	tã wũ
1PL	ãŋ	nã
2PL	ahã	mã
3PL	ɔŋ	wũ

Table 3.1: Xokleng pronoun paradigms.
Adapted from Urban (1985) and Gakran (2005).

Conversely, Kaingang exhibits just one pronominal paradigm. There is one invariable nominative marker *vỹ*, cognate of Xokleng third person *wũ* (Wiesemann 1978: 211), which marks pronouns independently of their person features (143), as well as lexical noun phrases (144).

(143) ʔẽg vỹ tapa kri nãgtĩ, fòg nỹ kỹmỹ.
1PL NOM plank ADES lie white lie-down sleep
'We sleep on bed, and non-Indians also sleep in beds.'
(Wiesemann 1972: 104)

(144) a. Kasor vỹ ter.
dog NOM die.SG
'The dog died.'
(D'Angelis 2004: 74)

b. Kófa ag vỹ vãfy hynhan tĩ.
old.man PL NOM braided make HAB
'The old men are braiding baskets.'
(D'Angelis 2004: 75)

Unique		
	SG	PL
1	inh	ẽg
2	ã	ãjag
3.M	ti	ag
3.F	fi	fag

Table 3.2: Kaingang pronoun paradigm.
Adapted from Wiesemann (1967, 1986).

Urban (1985) suggests that case is also visible on the agreement morphology on verbs. Both Southern Jê languages have a subclass of verbs that encode number morphologically through prefixation, reduplication and suppletion, described by Urban (1985: 176) for Xokleng and Wiesemann (1972: 94) for Kaingang. As Urban points out, this system of number agreement follows an absolutive alignment: Verbs present the plural form when the internal argument of transitive verbs or the single argument of intransitive verbs is plural. Conversely, the presence of a plural external transitive argument does not trigger plural marking on the verb.

(145) *Agreement with intransitive subject:*

a. tã wũ tẽ mũ
3SG 3.NOM go.SG ACT
'He went.'
(Urban 1985: 176)

b. ɔŋ wũ mũ mũ.
3PL 3.NOM go.PL ACT
'They went.'
(Urban 1985: 176)

(146) *Agreement with transitive object:*

a. tã wũ ti pɛnũ mũ
3SG 3.NOM 3SG shoot.SG ACT
'He shot him.'
(Urban 1985: 176)

b. tã wũ mẽ ɔŋ pin mũ
3SG 3.NOM DISTR 3PL shoot.PL ACT
'He shot them.'
(Urban 1985: 176)

(147) *No agreement with transitive subject:*
ɔŋ wũ ti pɛnũ mũ
3PL 3.NOM 3SG shoot.SG ACT
'They shot him.'
(Urban 1985: 176)

The agreement pattern described above, however, appears to be an instance of pluractionality, which eliminates it as an exponent of case. I discuss Jê pluractionality at the end of this chapter, in section 3.5.

From the available descriptions of Xokleng and Kaingang, the two extant Southern Jê languages are described as presenting complex patterns of case marking, summarized in table 3.3.

	Pronoun paradigm	Marking on nouns
Active	accusative	accusative
Stative	ergative	ergative

Table 3.3: Southern Jê case marking.

Active main clauses present an active form of the verb and their arguments are marked for case on an accusative alignment. Stative main clauses present a stative form of the verb, and the marking on arguments is ergative. Subordinate clauses consistently present the same ergative properties of stative clauses. Parallel to that, the system of verbal number agreement is aligned on an ergative pattern (but see §3.5).

3.2 Central Jê

The Central branch of the Jê family is composed of two extant languages, Xavante and Xerente, and two extinct languages, Akroá († mid-19th century) and Xakriabá († 1864) (Rodrigues 1999; Van der Voort & Ribeiro 2010). The inclusion of Akroá among the central languages has been disputed, but a recent comparative study of all four Central Jê languages (Carvalho & Damulakis 2015) has made a strong argument that Akroá should not be classified with the Timbira dialects in the Northern branch, as had been suggested (Monserrat 1994).

The Xavante and Xerente have a long history of contact with Brazilian society. First contacted in the 17th century by Jesuits and colonists, the two populations split at the end of the 19th century (Paula 2009). While the Xerente remained in the area near the Tocantins river, the Xavante migrated further West to the savanna of the central plateau of Brazil, in eastern Mato Grosso, to avoid the colonists. Established in the area surrounding the Rio das Mortes, where they acquired a reputation for extreme ferocity, the Xavante were contacted in the 1930s and finally compelled to settle in an Indian Protection service post in the 1950s (Maybury-Lewis 1967). The Xavante currently live in nine demarcated indigenous lands in southern Mato Grosso. Xavante is spoken by approximately 15,000 people (Estevam 2011). The 3,509 Xerente live in two demarcated indigenous lands in northern Tocantins, in east-central Brazil (Instituto Socioambiental 2017). Although all adults have a high fluency in Portuguese, the younger generations still learn Xerente as their first language (Paula 2009).

The most complete description of a Central Jê language is Estevam (2011) for the morhosyntax of Xavante. Although case in Xavante is not directly addressed, there is enough information to determine the alignment patterns of case marking in the language.

The structure of Xavante sentences is similar to Southern Jê languages, with a quite strict verb final order and different paradigms of pronominal forms, some of which cliticize on the verb (148). On these morphemes, second and third person present syncretism, which Estevam glosses as HTO "heterophoric," maintained here.

(148) a. Wa ab?rui-pese.
1.NOM be.annoyed-complete
'I'm very annoyed.'
(Estevam 2011: 187)

b. Wa tãma ti= ña.
1.NOM 3SG.DAT 3.ABS say
'I said it to him.'
(Estevam 2011: 174)

c. Te za ti= wĩ.
HTO PROSP 3.ABS kill
'He's going to kill him.'
(Estevam 2011: 174)

Unlike the Southern Jê languages Xokleng and Kaingang (§3.1), in Estevam's description of Xavante there is no case marking morphology on lexical noun phrases. The only morphological manifestation of case is in the choice of pronominal paradigms. In (149), the same first person pronoun cross-references the single argument of intransitive verbs and the external argument of transitive verbs, in a nominative pattern. A second paradigm cross-references the internal argument of transitive verbs and postpositional objects.

(149) a. Wa wi.
1NOM arrive
'I have arrived.'
(Estevam 2011: 205)

b. Wa za ti= ö.
1NOM PROSP 3ACC take
'I will take it.'
(Estevam 2011: 177)

c. Ni?wa za duré ĩĩ= zadawa?ru.
PRN.INDF PROSP also 1SG.ABS insult
'Someone might also insult me.'
(Estevam 2011: 395)

In contrast to the previous examples, in aorist, negative, imperative and dependent clauses a different case marking pattern emerges. The verb appears in a non-finite form (Estevam 2009, 2011) and the case marking is not the nominative-accusative seen above, but rather a different pronominal system is used for the external argument of a transitive verb (151a). Instead of the

nominative paradigm to which first person *wa* belongs, we find an absolutive paradigm (first person *ĩĩ*) that cross-references the single argument of intransitive verbs (150a) and the internal argument of transitive verbs. A separate paradigm of personal pronouns is used for the external argument of transitive verbs (151).

(150) a. Ĩĩ= ñĩb?rui õ di.
1SG.ABS be.upset NEG EXPL
'I'm not annoyed.'
(Estevam 2011: 188)

b. (*Wa) ĩĩ= nhipi õ di za.
1 1SG.ABS cook.NF NEG AUX FUT
'I will not cook.'
(Estevam 2009: 5)

c. Te ĩĩ= ma ti= nha [ĩhi (*wa) te wapa-ri
HTO 1SG DAT 3SG say old.man 1 ERG listen-NF
da].
TRSL
'He tells me to listen to the old man.'
(Estevam 2009: 5)

(151) a. Te za ti= ö.
HTO HTO 3SG.ABS take
'He will take it.'
(Estevam 2011: 177)

b. Te öri õ di za.
3SG.ERG take.NF NEG EXPL PROSP
'He won't take it.'
(Estevam 2011: 177)

In these non-finite contexts, besides the absolutive and nominative forms presented above there is a morpheme *te*, analysed as an auxiliary by Estevam (2011).

> "Auxiliary *te* is necessary to mark the subject, the aorist form and the non-finite form of a transitive verb in independent clauses that are negative, imperative and affirmative in aorist aspect, and also in dependent

> clauses, in which the verb's finiteness falls on the auxiliary" (Estevam 2009: 5).[2]

This morpheme appears to mark ergative arguments in a function similar to Xokleng ergative *tõ* (§3.1).

(152) a. Ni?wa te ?ru-zani mono õ di.
PRN.INDF ERG retreat-rage ITER NEG EXPL
'I don't get angry with anyone.'
(Estevam 2011: 52)

b. Warĩ na ∅ te ãma sõrẽme õ di.
tobacco INS 1SG ERG 3.preverb refuse NEG EXPL
'I haven't refused the tobacco.'
(Estevam 2011: 62)

An examination of example sentences in Xavante suggests that this ergative morpheme can also mark lexical noun phrases other than pronouns (153).

(153) Wapsã te ĩĩ= ?rãmi õ di.
dog ERG 1SG.ABS frighten NEG EXPL
'The dog didn't frighten me.'
(Estevam 2011: 227)

The three pronominal paradigms of Xavante are presented in table 3.4, adapted from the forms in Estevam (2009, 2011). For 3.HON, Estevam (2011) describes a mismatch between the paradigm used to double the single argument of intransitive verbs (*ta*) and the internal argument of transitive verbs (*da*). This could be interpreted as evidence of a fourth paradigm, one that shows syncretism for every form except for third person honorific.

2. My translation. I consequently adapt the gloss of this morpheme to ERG in the examples.

	Absolutive	Nominative	Ergative
1sg	ĩĩ-	wa-	∅-te
2sg	a(i)-	te	∅-∅
2sg.hon	a-	aa-	a-te
3sg	ti-/∅	te-	∅-te
3sg.hon	ta-/da-	tã wũ	da-te
3sg.gnr	da-	ta	da-te
1pl	wa-	wa-	wa-te
2pl	a(i)-	mã	∅-te
2pl.hon	a-	mã	a-te
3pl	ti-/∅	tã wũ	te-te/∅-te
3pl.hon	ta-/da-	tã wũ	da-te
3pl.gnr	da-	tã wũ	da-te

Table 3.4: Xavante pronoun paradigms.
Adapted from Estevam (2009, 2011).

The apparent confound that could arise between the ergative marker *te* and the homophonous third person pronoun is not so, as Estevam (2011: 238) indicates that the sequence *te te* corresponding to third person + ergative is attested (154).

(154) a. Dawezé ñiti te te wa= hözu mono wa.
medicine far.from 3pl erg 1pl.abs pierce iter subord.
'Because they give us a shot when the medicine is expired.'
(Estevam 2011: 227)

b. Pawaʔöbö- ʔrare ñerẽ hã, te bötö bö re aʔuwẽ
salary be.small conc emph hto day loc dim Xavante
warazu ñipaj u te te romhuri zaʔra.
white.man superior loc 3pl erg work pl
'In spite of the small pay, every day the Xavante work more than the white man.'
(Estevam 2011: 238)

Estevam (2011: 36) indicates that emphatic pronouns can appear in a position to the very left of the clause, duplicating a noun phrase already present in the clause (155).

(155) a. Wahã, ĩĩ= wasutu di.
1SG.EMPH 1SG.ABS be.tired IMPRS
'Me, I'm tired.'
(Estevam 2011: 40)

b. Ãhãta, wahã wa za ĩĩ= mreme.
DEM 1SG.EMPH 1SG.NOM FUT 1SG.ABS speak
'Then, me, I'm going to speak.'
(Estevam 2011: 359)

The leftmost pronoun appears in what Estevam considers an emphatic form, apparently built from a paradigm that appears to be similar to the nominative. This noun phrase is reportedly marked with a prosodic boundary that separates it from the rest of the clause.

However, there is a slightly more internal position, still to the left of the clause but not in the prosidically dislocated leftmost area. In this position, a nominative pronoun can duplicate the argument already cross-referenced with the absolutive clitic, as can be seen in (252b). The fact that we see double exponence of the same participant is not unusual, as Jê cliticization is usually triggered by dislocation or null anaphora. What is worth noting is that the pronoun that occurs to the left of the TAME position, future *za* in (252b), surfaces with nominative case rather than absolutive. We will see that leftward positions are also connected to specific cases in Northern Jê languages.

Table 3.5 summarizes the different patterns of case marking in Xavante. Even though the global picture is less clear for Central Jê languages than it was for Southern Jê, the same broad tendencies appear to hold.

	Pronoun paradigm	Marking on nouns
Finite verb	accusative	–
Non-finite verb	ergative	ergative

Table 3.5: Central Jê case marking.

Verbs present two forms, finite and non-finite, that are strictly correlated with a different alignment of case marking as well as certain clausal environments. Main clauses for the accusatively-aligned finite form; aorist, negative, imperative and dependent clauses for the ergatively-aligned non-finite form. As such, Central Jê appears to exhibit a split alignment system, with nominative-accusative alignment in finite clauses and ergative-absolutive alignment in non-finite clauses.

3.3 Northern Jê

Northern Jê languages present a strong correlation between the alignment of case marking and the presence of long or short forms of verbs as predicate heads, a pattern that we have already seen in the other two branches of the family.

3.3.1 Mẽbêngôkre

This subsection summarizes case marking in Mẽbêngôkre. This language is spoken by 10,456 people in central Brazil (Instituto Socioambiental 2017), belonging to two indigenous nations, the Kayapó (Pará, Mato Grosso) and the Xikrín (Pará). For an extended description and analysis of the morphology, syntax and semantics of Mẽbêngôkre, see Reis Silva (2001) and Salanova (2007). As we are going to see, Mẽbêngôkre presents a well-behaved incarnation of the Jê case marking split connected to two different forms of the verb, and is a good representative of the generalized patterns observed in the Northern branch.

Morphological case in Mẽbêngôkre is only visible on pronouns. That is to say, case allomorphy is only manifested as the choice of pronominal paradigm: nominative, accusative, ergative or absolutive. Turning our attention to main clauses first, in independent clauses verbs usually appear in short form. In the presence of a short form verb, the single argument in intransitive clauses is marked with nominative case (156a). Transitive clauses also have their external argument marked with nominative case, and their internal argument with accusative case (156b).

(156) a. Ba keke.
1SG.NOM laugh.SH
'I laugh.' (el)

b. Ba a= pumu.
1SG.NOM 2SG.ACC see.SH
'I see you.' (el)

As indicated by the notation in (156), nominative pronouns are strong pronominal phrases that stand by themselves in the clause and are prosodically separate from the predicate head. Conversely, accusative pronouns cliticize on the predicate head. The accusative indexes are clearly more pronominal in their distribution than they are affixal, which is mainly manifested in their alternance with lexical noun phrases. In Mẽbêngôkre, all clauses present the

strict verb-final structure that is characteristic of Jê languages, and objects have an immediately preverbal dedicated position (157a). When the object noun phrase is absent from this position, either by being dropped (157b) or displaced (157c), an accusative clitic is necessary.

(157) a. Ba kukryt bĩ.
1SG.NOM tapir kill.SH
'I killed a tapir.' (el)

b. Ba ku= bĩ.
1SG.NOM 3SG.ACC kill.SH
'I killed it.' (el)

c. Kukryt nẽ ba ku= bĩ.
tapir NFUT 1SG.NOM 3SG.ACC kill.SH
'A tapir, I killed.' (el)

Second person subjects trigger what appears to be a person hierarchy effect on the pronominal clitic. In the context of a second person subject when the object is third person, the clitic must have second person features (Reis Silva 2001: 53), shown here for null anaphora (158b) and dislocation of the doubled NP (158d). Note that, just like in (157), the clitic alternates with the internal argument, not with the external argument. This corresponds to a 2>3 person hierarchy in the classic Silverstein (1976) approach to hierarchy effects.

(158) a. Ga angrô bĩ.
2SG.NOM peccary kill.SH
'You killed the peccary.' (el)

b. Ga a= bĩ.
2SG.NOM 2SG.ACC kill.SH
'You killed it.' (el)

c. *Ga angrô a= bĩ.
2SG.NOM peccary 2SG.ACC kill.SH
'You killed the peccary.' (el)

d. Angrô nê ga a= bĩ.
peccary NFUT 2SG.NOM 2SG kill.SH
'The peccary, you killed it.' (el)

It is worth noting that the hierarchy does not extend to a 1>2/3 effect, as could otherwise be expected (159).

(159) a. Ba a= pumũ.
1SG.NOM 2SG.ACC see.SH
'I see you.' (el)

b. Ba ku= bĩ.
1SG.NOM 3SG.ACC kill.SH
'I killed it.' (el)

The alternation of NPs and weak pronouns in Mẽbêngôkre does not completely obstruct our view of the case marking system, which for main clauses shows a nominative-accusative pattern. Turning now to dependent clauses, they deviate in two ways from main clauses. First, verbs in subordinate clauses appear in their long form. Second, the case marking pattern in dependent clauses is ergative. The single argument of intransitive verbs is cross-referenced with an absolutive clitic, close in form to the accusative paradigm, and the internal argument of transitive verbs is indexed with the same absolutive paradigm.

The external argument, however, is not marked with a nominative pronoun, but with a different pronoun paradigm that, therefore, corresponds to an ergative paradigm. This is illustrated in (160), where (a-b) are dependent versions of the main clause examples in (156).

(160) a. [I= keket] kêt.
1SG.ABS laugh.LG NEG
'I don't laugh.' (el)

b. [Ije a= pumuj] kêt.
1SG.ERG 2SG.ABS see.LG NEG
'I don't see you.' (el)

The postverbal *kêt* in the previous examples is in fact a predicate. This is shown by the fact that it can also appear as a verbal predicate head, even hosting a pronominal clitic like verbs do (161).

(161) a. tɛp ket
fish NEG
'There is no fish.'
(Salanova 2007: 58)

b. i= ket ri
1SG.ABS NEG at
'When I didn't exist.'
(Salanova 2007: 59)

Whenever negative *kêt* appears to be postverbal, we are in fact looking at a hypotactic structure in which *kêt* takes the negated clause as its complement (Salanova 2007: 58), which explains the similar case marking observed in a more transparently dependent clause like those in (162).

(162) a. Ba [kute tep janhĩnh] pumu.
1SG.NOM 3SG.ERG fish fishing.LG see.SH
'I saw him catch fish.' (el)

b. I mã [aje tep krẽn] prãm.
1SG.ACC DAT 2SG.ERG fish eat.LG want
'I want you to eat fish.'
(Reis Silva 2001: 64)

Other clause-selecting predicates that present the same behaviour as *kêt* are prospective aspect markers *ỳrỳ* (163), *kadjy* and *mã*; manner modifiers *mex* "good" and *pyro* "ready," and aspectual *rã'ã* "still" (Salanova 2017).

(163) a. [I= tỹm] ỳrỳ.
1SG.ABS fall.LG PROSP
'I'm about to fall.'
(Reis Silva 2001: 71)

b. [[I tẽm] ỳrỳ] dja ba a mã ku=
1SG.ABS leave.LG PROSP NFUT 1SG.NOM 2SG.ACC DAT 3SG.ACC
nga.
give
'I'll give it to you when I go away.' (obs.)

The paradigms for Mẽbêngôkre pronouns are given in table 3.6. Some syncretism is observed for first, second and third persons across the case paradigms. Nominative is mostly independent of the paradigms with shared person roots,

to which a /-Cɛ/ morpheme attaches to form the ergative. Absolutive and accusative are only distinguished in the third person, /ku/ for accusative case and /∅/ for absolutive.

	Nominative	Accusative	Absolutive	Ergative
1sg	ba	i	i	ije
2sg	ga	a	a	aje
3sg	∅	ku	∅	kute
1sg.incl	gu	(gu) ba	(gu) ba	gu baje
1pl	ba mẽ	mẽ i	mẽ i	mẽ ije
2pl	ga mẽ	mẽ a	mẽ a	mẽ aje
3pl	mẽ	mẽ ku	mẽ	mẽ kute
1pl.incl	gu mẽ	(gu) mẽ ba	(gu) mẽ ba	(gu) mẽ baje

Table 3.6: Mẽbêngôkre pronoun paradigms.
Adapted from Reis Silva (2001) and Salanova (2007).

Nominative pronouns can duplicate the reference to a participant already expressed in the clause, independently of the alignment in the case marking of the core arguments (164).

(164) a. ba i= tẽm
1sg.nom 1sg.abs leave.lg
'I go.'
(Salanova 2007: 34)

b. Ba ije ∅= bỳr kêt.
1sg.nom 1sg.erg 3sg.abs take.lg neg
'I don't take it.' (el)

Additionally, nominative pleonastic or emphatic pronouns can appear at the very left edge of the clause, in a position that Salanova (2007: 35) calls Focus, before the canonical position of TAME elements (165).

(165) a. Ba nẽ ba tẽm djỳ opãnh.
1sg.nom nfut 1sg.nom leave.lg walk pay
'It's me who paid for the trip.' (obs)

b. Ga nẽ ga Tengri nhõ djudjê kwãrã.
2sg.nom nfut 2sg.nom Tengri poss bow break.sh
'*You* broke Tengri's bow.' (el)

So far, what we observe in Mẽbêngôkre is a three-way correlation between case marking alignment, verb form and host clause type, namely whether the syntactic environment is a main clause or a dependent clause. Main clauses contain short verb forms and have nominative–accusative case marking, while dependent clauses contain long verb forms and have ergative–absolutive case marking. In the rest of this section we will see that the cause-and-effect relation proves to be between verb form and case marking alignment, rather than between clause type and case marking alignment, falling within the case marking environments that we saw for Southern Jê.

Whereas Mẽbêngôkre does present long verb forms in main clauses, there are no occurrences of ergative case marking in short verb form clauses. The presence of verbs in the long form in main clauses is very restricted, but not ruled out: They can occur in main clauses that also lack the postverbal predicates presented above, such as negative *kêt*. Main clauses with long form verbs are described as having a very specific meaning associated with them, namely "resultatives for verbs that involve a change of state; existential perfects; habituals or generics for verbs that denote plural activities" (Salanova 2017). The following example illustrates that, in addition to dependent clauses, main clauses can also appear with a long form verb and, when they do (166b), they also present ergative case marking.

(166) a. Krwỳj jã nẽ ∅ mop krẽ.
parakeet DEM NFUT 3SG.NOM malanga eat.SH
'This parakeet ate the malanga.'
(Salanova 2007: 105)

b. Krwỳj jã nẽ kute mop krẽn.
parakeet DEM NFUT 3SG.ERG malanga eat.LG
'This parakeet has eaten malanga (once in his life).'
(Salanova 2007: 105)

In contrast, short verb forms are ungrammatical in dependent clauses (167), regardless of the case marking on the arguments. Only long verbs, with the corresponding ergative case marking (167c), are grammatical in dependent environments.

(167) a. *[Ba tep krẽ] kêt.
1SG.NOM fish eat.SH NEG
'I didn't eat fish.' (el)

b. *[Ije tep krẽ] kêt.
1SG.ERG fish eat.SH NEG
'I didn't eat fish.' (el)

c. [Ije tep krẽn] kêt.
1SG.ERG fish eat.LG NEG
'I didn't eat fish.' (el)

Even though clause type appears to indeed be closely related to the case marking alignment of arguments, the true correlation is that only the arguments of long-form verbs are marked for case in an ergative pattern. As Salanova (2007) argues, nounness is the source of all the ergative constructions in Mẽbêngôkre. In the clausal domain of a long verb, there is a pronominal paradigm exclusive to the external arguments of transitive verbs, and a different paradigm shared by internal arguments of transitive verbs and by the single argument of intransitive verbs. Since long verb forms can be analyzed as nominal and in Mẽbêngôkre nominalizations are required for a clause to be selected as dependent of another predicate, the result is that dependent clauses systematically appear with an ergative case marking alignment.

The case marking pattern on arguments of lexical nominals reinforces the prediction that nominal environments are the source of ergative case in Mẽbêngôkre. In nominal predicates headed by both nouns and adjectives, the selected argument is marked for absolutive case instead of nominative (168), including inalienable possession (169).

(168) a. I= pri-re.
1SG.ABS child-DIM
'When I was a child.' (obs)

b. Mẽ i= kukama-re 'òr tẽ.
PL 1ABS forebear-DIM to come
'He came to our forebears.'
(Stout & Thomson 1971: 251)

(169) a. I= prõ.
1SG.ABS wife
'My wife.' (el)

b. A= prõ.
2SG.ABS wife
'Your wife.' (el)

c. ∅= prõ.
3SG.ABS wife
'His wife.' (el)

Thus, nominals pattern with long verbs in their case marking properties, as opposed to short verbs, which are not nominal but finite-verbal and correlate with accusative case marking.

	PRONOUN PARADIGM	MARKING ON VERBS
NOMINAL VERB	ergative	-
FINITE VERB	accusative	-

Table 3.7: Mẽbêngôkre case marking.

The data examined in this section also show that Mẽbêngôkre does not have a cross-reference system that marks arguments on the verb. Even though the accusative and absolutive pronouns attach to the verb, they are bound pronominal forms that alternate with the presence of lexical noun phrases. We will see that Panará is the only Northern Jê language that exhibits two parallel cross-reference systems that index case on noun phrases and on the verb.

3.3.2 Apinayé

This section covers case marking in Apinayé, considered to be the closest language to Mẽbêngôkre. Apinayé morphosyntax was described by Ham (1961), although most of the data in this section are taken from Oliveira (2005). The 2,277 Apinayé (Instituto Socioambiental 2017) currently live in the Apinayé Indigenous Land between the Araguaia and Tocantins rivers, in the Brazilian state of Tocantins.

Apinayé shows the verb-finality restriction typical of Jê languages that we have seen so far. The case marking morphology of Apinayé is also very similar to the Northern Jê pattern that Mẽbêngôkre exhibits (§3.3.1). In main clauses, a nominative pronominal paradigm cross-references both the single argument of intransitive verbs and the external argument of transitive verbs (170a–b), with a series of accusative bound pronouns that index the internal object of transitive clauses (170c).

(170) a. Na pa prĩgʌk-ti əɲ nipeč.
REAL 1SG.NOM bacuri-AUG sweet make
'I made some bacuri jam.'
(Oliveira 2005: 218)

b. Pa mã tẽ.
1SG.NOM away go
'I'm going away.'
(Ham 1961: 17)

c. Ic= pumu.
1SG.ACC see
'Look at me.'
(Ham 1961: 23)

As in Mẽbêngôkre, the Apinayé cross-reference morphemes bound on the verb display a clitic-like behaviour, appearing in complementary distribution with participant noun phrases when the noun phrase is fronted or otherwise omitted from the canonical preverbal position (171).

(171) a. Na pa pĩ ja pɨ.
REAL 1SG.NOM wood DEF grab
'I grabbed that wood stick.'
(Oliveira 2005: 220)

b. Pĩ ja na pa ku= pɨ.
wood DEF REAL 1SG.NOM 3SG.ACC grab
'That wood stick, I grabbed it.'
(Oliveira 2005: 220)

c. Na pa ku= pɨ.
REAL 1SG.NOM 3SG.ACC grab
'I grabbed it.'
(Oliveira 2005: 220)

Unlike pronouns, lexical noun phrases are not marked for case (172). Similarly to Mẽbêngôkre, case only has morphological exponence on pronouns.

(172) a. Na kɔp tẽm.
REAL glass fall
'The glass fell.'
(Oliveira 2005: 369)

b. Na rɔp i= ɲja.
REAL dog 1SG.ACC bite
'The dog bit me.'
(Oliveira 2005: 382)

c. Na pa kukrɨt jabɨ krẽ.
REAL 1SG.NOM tapir tail eat
'I ate the tapir's tail.'
(Oliveira 2005: 401)

Ergative case is present "exclusively in the context of subordination in Apinajé" (Oliveira 2005: 178). In subordinate clauses, the external argument of a transitive verb is marked with a morpheme *tɛ* on strong pronouns indexing speech act participants, and with a morpheme *kɔt* on third persons (173).

(173) a. Na pa [ic- tɛ ra a mə̃ i= jabatpẽr] ket.
REAL 1 1 ERG PRF 2 DAT 1 think.about NEG
'I don't think about you anymore.'
(Oliveira 2005: 178)

b. ɲum [mẽ kɔt mẽ ɔ'buɲ ɔ ə̃]= 'čwəɲ ja...
then PL 3ERG PL 3SG.seeNF INS LOC NMLZ DEF
'Then, those who were watching them, ...'
(Oliveira 2005: 87)

However, Oliveira (2005) also shows instances of ergativity in main clauses. These are all cases in which the verb is in the non-finite form (174). As in Mẽbêngôkre, the connection between case marking alignment and clause type is also closely connected with the form of the verb.

(174) a. Ic- tɛ a= pubuɲi.
1 ERG 2SG.ABS see.NF
'I know you.'
(Oliveira 2005: 237)

The reconstruction in table 3.8 of the pronominal paradigms of Apinayé based on Ham (1961) and Oliveira (2005) does not extend to the plural. However, it is sufficient to see that the pattern is very similar to that of Mẽbêngôkre, a system with different paradigms for accusative and absolutive, plus a nominative and an ergative.
The case marking patterns of Apinayé that emerge from the data examined in this section are very close to what we observed in Mẽbêngôkre, as is summarized in table 3.9.

	Nominative	Accusative	Absolutive	Ergative
1sg	pa	i(C)	i(C)	ictɛ
2sg	ka	a	a	ajɛ
3sg	∅	ku	∅	∅

Table 3.8: Apinayé pronoun paradigms.
Adapted from Ham (1961) and Oliveira (2005).

	Pronoun paradigm	Marking on verbs
Non-finite verb	ergative	-
Finite verb	accusative	-

Table 3.9: Apinayé case marking.

Finite verbs are restricted to main clauses and the case marking on argument pronouns is ergative. Non-finite verbs are strongly linked to dependent clauses, embedded by another clause or by a predicate like negation and aspect, among others; in the clausal domain of non-finite verbs, the case marking is ergative.

3.3.3 Kĩsêdjê

The Kĩsêdjê, formerly known as the Suyá, are believed to have arrived in the Upper Xingu region in central Brazil during the first half of the 19th century (Santos 1997). As a result of extensive contact with the other peoples living in this area of multiethnic and multilingual networks, the Kĩsêdjê acquired various elements of *xinguano* material culture. Throughout the 20th century the pressure of Brazilian settlers in the region caused an increase in violence between some of the peoples in the Upper Xingu. The Kĩsêdjê in particular had several violent clashes with the Juruna, the Kayapó and the Waurá. After a series of violent episodes of contact with Brazilian society in the mid-20th century, today the Kĩsêdjê number 424 (Instituto Socioambiental 2017) and live in a demarcated indigenous land adjacent to the Xingu Park. They continue to fight for their land rights.

This section presents an overview of the case marking patterns in Kĩsêdjê. The data discussed below are taken from Santos (1997) and Nonato (2014). Like the Northern Jê languages Mẽbêngôkre and Apinayé, Kĩsêdjê is a strongly verb final language that exhibits two case marking alignments linked to clause

type and to verb forms. In main clauses (175-176), a strong pronoun paradigm cross-references the single argument of intransitive verbs and the external argument of transitive verbs. A different bound pronoun cross-references the internal argument of transitive verbs (176).

(175) a. hẽn 'wa 'twə
FACT 1SG.NOM bathe
'I took a bath.'
(Santos 1997: 47)

b. ka 'ŋgrɛ.
2SG.NOM dance
'You danced.'
(Santos 1997: 47)

(176) a. hẽn 'wa 'pen kaso'so
FACT 1SG.NOM mangaba suck
'I sucked on a mangaba.'
(Santos 1997: 110)

b. tu'te- n ka ku= pɨ.
bow TOP 2SG.NOM 3SG.ACC take
'You took the bow.'
(Santos 1997: 48)

Kĩsêdjê differs from Mẽbêngôkre and Apinayé in that lexical noun phrases are marked with a dedicated nominative case morpheme *ra* (177).

(177) a. ∅ I nã ra mbârâ.
FACT 1SG mother NOM cry
'My mother cried.'
(Nonato 2014: 3)

b. ∅ I nã ra khu= ku.
FACT 1SG mother NOM 3SG.ACC eat
'My mother ate it.'
(Nonato 2014: 3)

c. Hẽn ∅ i= nã (*ra) mu.
FACT 3SG.NOM 1SG mother NOM see
'He saw my mother.'
(Nonato 2014: 104)

In dependent clauses, a different case marking pattern applies. The single argument of intransitive verbs and the internal argument of transitive verbs share a pronominal paradigm, and when cross-referenced by lexical noun phrases these appear morphologically unmarked (178-179). The external argument of transitive verbs appears marked for ergative case with pronominal arguments by a dedicated paradigm of strong pronouns (179). Nominative and accusative pronouns are ungrammatical in long form environments.

(178) a. ∅ Wa [a= thẽm] mũ.
FUT 1SG.NOM 2SG.ABS GO.NF see
'I will see him go.'
(Nonato 2014: 4)

b. *∅ Wa [ka= thẽm] mũ.
FUT 1SG.NOM 2SG.NOM GO.NF see
Intended: 'I will see him go.'
(Nonato 2014: 4)

(179) a. ∅ Ka [ire ∅= khuru] mũ.
FUT 2SG.NOM 1SG.ERG 3SG.ABS eat.NF see
'You are going to see me eat it.'
(Nonato 2014: 4)

b. *∅ Ka [wa khu= khu(ru)] mũ.
FUT 2SG.NOM 1SG.NOM 3SG.ACC eat.NF see
Intended: 'You are going to see me eat it.'
(Nonato 2014: 4)

With lexical noun phrases, however, upon closer examination of examples in Nonato (2014) and Santos (1997) there appears to be a switch back to a nominative-accusative alignment. The ergative morpheme *re* seen in ergative pronouns is in free variation with the nominative case marker *ra* (Nonato 2014: 104), and the alignment follows the same accusative pattern observed in short-form verbs (180).

(180) a. ['bi'ãka ra 'nõrõ] 'kere
Bianka NOM sleep.LG NEG
'Bianka didn't sleep.'
(Santos 1997: 72)

b. [i'rɛ hwĩ'ŋgrɔ janthoro] 'kere
1SG.ERG firewood hang.LG NEG
'I didn't hang the firewood.'
(Santos 1997: 56)

c. Hẽn ∅ [i= nã {re/ra /*∅ } ∅=
FACT 3SG.NOM 1SG.NOM mother ERG NOM 3SG.ABS
khuru] khãm s= õmu.
eat.LG INES 3SG.ABS see.SH
'He/she saw my mother eating.'
(Nonato 2014: 104)

Much like in Mẽbêngôkre and Apinayé, in Kĩsêdjê there are a series of clause-embedding predicates that encode tense, aspect, manner and negation (Nonato 2014: 7), all of which select a clause as their dependent.

(181) a. [i= ŋgɛre] kere
1SG.ABS dance.NF NEG
'I don't dance.'
(Santos 1997: 66)

b. [irɛ a= kaken] kere
1SG.ERG 2SG.ABS scratch.NF NEG.
'I didn't scratch you.'
(Santos 1997: 161)

In Kĩsêdjê case is indexed on pronouns by means of four different paradigms, presented in table 3.10.

	Absolutive	Accusative	Nominative	Ergative
1SG	i	i	wa	'ire
1INCL	wa	wa	ku	'kware
2SG	a	a	ka	'kare
3SG	s/∅	khu	∅	'kôre

Table 3.10: Kĩsêdjê pronoun paradigms.
Adapted from Nonato (2014).

Accusative and absolutive are unmarked on lexical noun phrases, and when indexed on pronouns both cases present a high degree of syncretism. However, accusative and absolutive are differentiated on the third person. The

re morpheme that marks ergative case on nominals is recognizable in ergative pronouns, but the host pronoun does not correspond to any of the other paradigms. At least descriptively, we have to recognize different stems on ergative pronouns.

Nonato (2014) notes that embedded clauses are restricted in their inability to license the modal particles that are obligatory in main clauses (182). Main clauses and dependent clauses are also distinguished by the presence of short finite verbs and long non-finite verbs, respectively (183), called 'main form' and 'embedded form' in Nonato (2014).

(182) *(Hẽn) wa [(*kôt) a= thẽm] mba.
FACT 1SG.NOM INF.FUT 2SG.ABS fall.NF know
'I know you (*may) fall.'
(Nonato 2014: 5)

(183) a. ∅ Wa khu= ku.
FUT 1SG.NOM 3SG.ACC eat.SH
'I am going to eat it.'
(Nonato 2014: 7)

b. ∅ Ka [ire ∅= khuru] mũ.
FUT 2SG.NOM 1SG.ERG 3SG.ABS eat.LG see.SH
'You are going to see me eat.'
(Nonato 2014: 7)

There appear to be two contexts in which nominative case is found where we would not expect it (Nonato 2014: 7). First, embedded clauses marked with modal particles (184) have nominative case instead of ergative, even when the embedded verb appears in the non-finite form. Second, in a coordinated construction with a finite clause and a non-finite clause, the highest argument in the embedded clause surfaces with nominative case (185).

(184) Thep wit= na [wa ∅= khuru] khêrê.
fish only FACT 1SG.NOM 3SG.ABS eat.NF NEG
'Only fish didn't I eat (Only fish was it not the case that I ate).'
(Nonato 2014: 7)

(185) Hẽn [∅ i mã hỹ ne] [=wa ∅=
FUT 3SG.NOM 1SG.ACC DAT yes do and.DS.1SG.NOM 3SG.ABS
khuru wiri].
eat.NF be.always

'He let me always eat it (He did 'yes' to me and it is always the case that I eat it).'
(Nonato 2014: 8)

Nonato (2014) takes the presence of modal particles in sentences like (184) as evidence that the participant that surfaces with nominative form in the embedded clause receives case from the main, finite clause. However, the presence of a second pronoun with ergative case is possible (186).

(186) mbry ká kangô kãm na [wa (ire) hwĩ sy ngrá
animal skin juice LOC FOC 1SG.NOM 1SG.ERG wood seed dry
kuru] mã
eat.NF FUT
'It's with milk that I will eat my cereal.'
(Nonato 2010: 2)

In that case, nominative arguments in Kĩsêdjê embedded non-finite clauses could correspond to the emphatic nominative pronouns that appear on the left periphery of the clause in Northern Jê languages, as in (165) for Mẽbêngôkre, with an omitted ergative pronoun. Although Nonato notes that the emphatic first person pronoun is usually *pa*:

(187) ire pa khu mã i= kapẽrẽ mã
1SG.ERG 1SG.NOM 3SG.ACC DAT 1SG talk.LG FUT
'I will talk to him myself.'
(Rafael Nonato, p.c., 03/2017)

The allomorphy of case marking in Kĩsêdjê (table 3.11) falls well within the tendencies seen so far in Jê languages in general, and Northern Jê in particular.

	Pronoun paradigm	Marking on nouns
Non-finite verb	ergative	accusative
Finite verb	accusative	accusative

Table 3.11: Kĩsêdjê case marking.

Like in Mẽbêngôkre and Apinayé, the Kĩsêdjê accusative and absolutive clitics are differentiated in the third person. Unlike in Mẽbêngôkre and Apinayé, however, ergative case is morphologically realized beyond pronominal forms and also marks lexical noun phrases, although the form of the ergative pronominal paradigm is not predictable by applying the ergative marker to one of the other paradigms of pronouns. Unlike the Jê languages examined so far,

the alignment of case marking on lexical noun phrases is consistently accusative, unlike that of pronouns, which present ergative alignment in clauses with long form verbs, considered non-finite forms.

3.3.4 Tapayuna

A very close relative of Kĩsêdjê, Tapayuna is spoken in the Brazilian state of Mato Grosso. Initially located near the Arinos river in western Mato Grosso in the 19th century (Bossi 1863), the Tapayuna (self-denominated *Kajkwakhratxi*) defended themselves from various contact initiatives by Brazilian colonists in the area. During the 1960s they lived in up to 12 different villages, with a population of 1200 individuals according to FUNAI[3] estimates (Camargo 2015). The Tapayuna population suffered a dramatic decline as a result of the spreading of infectious diseases and attacks from rubber tappers, who tried to exterminate the Tapayuna with poisoned food and by attacking and burning their villages. They were transferred to the Xingu Indigenous Park in 1969, where they were forced to settle first with the Kĩsêdjê community and later in the Mẽbêngôkre village of Mẽtyktire.

After a population low point in 1971 with only 43 people, they have managed a steady recovery and had reached a population of 132 in 2014 (SESAI). Most Tapayuna today live in the village of Kawêrêtxikô, on the Xingu river, in the Kapôt-Jarina Indigenous Land. Most young Tapayuna are monolingual in Mẽbêngôkre, with varying levels of proficiency in Portuguese as a second language. The Tapayuna community is actively trying to fight the decline of their language.

Tapayuna morphosyntax is described by Camargo (2015), and all data in this section are taken from her work. Tapayuna is a head-final language in which no participant phrase can appear in the post-verbal position. Tapayuna main clauses with short-form verbs present two pronominal paradigms in a nominative-accusative alignment. The internal object in transitive clauses is cross-referenced with an accusative pronominal clitic (188), while both the single argument of intransitive clauses and the external argument of transitive clauses are cross-referenced with a nominative strong pronoun paradigm (189).

3. National Indian Foundation, a department within the Ministry of Justice in the Brazilian Government.

(188) a. nira -t i= wũ
DET TOP 1SG.ACC see.SH
'He saw me.'
(Camargo 2015: 110)

b. tɛw na wa ku= khrẽ
fish TOP 1SG.NOM 3SG.ACC eat.SH
'I ate *fish*.'
(Camargo 2015: 170)

(189) a. wẽŋgɛrɛ thõra kã na wa ŋgrɛ
party other LOC TOP 1SG.NOM dance.SH
'At the other party, I danced.'
(Camargo 2015: 87)

b. wa -n wa a= wũ
1SG.NOM TOP 1SG.NOM 2SG.ACC see.SH
'*I* saw you.'
(Camargo 2015: 189)

In short-verb clauses, lexical noun phrases are marked with the morpheme *ra* when they appear as the argument of intransitive clauses or the external argument of transitive clauses (190). Thus, *ra* acts as a nominative case marker and is consistent with the accusative alignment of the exponence of case on pronouns in short-verb clauses.

(190) a. Nayara ra rɔw kura
Nayara NOM dog hit.SH
'Nayara hit the dog.'
(Camargo 2015: 192)

b. wĩtʃi ra thɨ
caiman NOM die.SH
'The caiman died.'
(Camargo 2015: 85)

In Tapayuna, the non-finite long form of the verb is obligatory in clauses with future tense, progressive aspect, and negation. These correspond to the clause-selecting predicates in Kĩsêdjê (tense, aspect and negation) that require the verb to appear in its long form.

As we have come to expect with Jê languages, clauses with long-form verbs present an alignment shift in their case marking. The single argument

of intransitive verbs and the internal argument of transitive verbs are cross-referenced with absolutive paradigm clitics (191), identical to accusative but for third person being /∅/ instead of /ku/ (191b).[4]

(191) a. i= thẽw ket wã
1SG.ABS go.LG NEG FUT
'I don't go.'
(Camargo 2015: 142)

b. itha -t ∅= wot kere
DEM TOP 3SG.ABS arrive.LG NEG
'He didn't arrive.'
(Camargo 2015: 126)

When a pronoun appears as the external argument of a transitive verb in its long form, it is marked with a *rɛ* ergative morpheme that Camargo (2015) identifies as a postposition and attaches on the pronominal paradigm used in the accusative (192).

(192) a. kukwəj na wẽwɨ ku rɛ kẽrẽ wã
monkey TOP man 3SG.ERG eat.LG FUT
'The monkey, the man will eat it.'
(Camargo 2015: 122)

b. i rɛ wĩtʃi wĩrĩ kere
1SG.ERG caiman kill.LG NEG
'I didn't kill a caiman.'
(Camargo 2015: 191)

However, if an argument in a clause with a long-form verb is not pronominal but a lexical noun phrase, the case marking is different. In that context, the single argument of intransitive verbs and the external argument of transitive verbs are both marked with the same nominative morpheme *ra* that marks nominative case on lexical noun phrases in short-verb clauses (193). The implication is that long-form verb clauses in Tapayuna have a hierarchical split alignment case system, in which pronominals are marked for ergative and absolutive case, but nouns are marked for nominative and accusative.

4. Rather than a classic short–long alternation, the verb *wət* 'to arrive' has a different form *wot* that is obligatory in future tense, progressive aspect and negation (Camargo 2015: 126).

(193) a. Nayara ra kĩ kererɛ
Nayara NOM happy NEG
'Nayara is not happy.'
(Camargo 2015: 80)

b. nẽ ɲĩ hrõ ra kuthã ku wã kawẽrẽ kere
and then wife NOM advers? 3SG DAT speak.LG NEG
'But his wife did't answer anything.'
(Camargo 2015: 213)

c. nẽ ɲĩ hwĩ ra ajtarẽj kere
and then tree NOM say NEG
'But the trees didn't say anything.'
(Camargo 2015: 213)

Tapayuna pronouns present four different paradigms, summarized in table 3.12.

	ABSOLUTIVE	ACCUSATIVE	NOMINATIVE	ERGATIVE
1SG	i	i	wa	i rɛ
1INCL	wa	wa	kowa	wa rɛ
1EXCL	adʒi	adʒi	ajwa	adʒi rɛ
2SG	a	a	ka	a rɛ
3SG	∅	ku	∅	ku rɛ

Table 3.12: Tapayuna pronoun paradigms.
Adapted from Camargo (2015).

There are three differentiated paradigms that present case allomorphy for nominative, accusative and absolutive, with an additional ergative case marker. Accusative and absolutive pronouns are clitics that show the syncretism common in Northern Jê languages, differentiated only in the third person. Ergative pronouns consist of the familiar *rɛ* ergative morpheme hosted by an independently existing paradigm, namely the accusative paradigm. This is one significant difference from Kĩsêdjê pronouns, where the theme that receives the ergative morpheme is not recoverable from an existing paradigm. In that respect, Tapayuna pronouns resemble more Mẽbêngôkre and Apinayé.

Tapayuna also presents the extended left clausal area that we have seen in Northern Jê, with the emphatic position where participants can appear duplicated with a pronoun when they are signaled as topic or otherwise (194).

(194) a. ka-r ka i= wũ
2SG-TOP 2SG 1SG see
'*You* saw me.'
(Camargo 2015: 122)

b. wa-n wa irɛ uhʌtʃi wĩrĩ wã
1SG-TOP 1SG 1SG.ERG tapir kill.LG FUT
'*I* will kill the tapir.'
(Camargo 2015: 170)

In spite of undeniable similarities with Kĩsêdjê, the specific exponents of case in Tapayuna presents some idiosyncracies (table 3.13).

	Pronoun paradigm	Marking on nouns
Non-finite verb	ergative	accusative
Finite verb	accusative	accusative

Table 3.13: Tapayuna case marking.

Ergative pronouns are derived analytically, consisting of the accusative paradigm with the addition of an ergative morpheme *rɛ*. As in Kĩsêdjê, nominative case is also marked by a dedicated morpheme, which appears not only on pronouns but also on lexical noun phrases. Unlike Kĩsêdjê, the case marking in non-finite long verb environments presents a split between pronouns and nouns.

3.3.5 Timbira

In this section we turn our attention to the case marking patterns of Timbira. Even though the case system of the Timbira dialects presents clear similarities to what we examined in Mẽbêngôkre (§3.3.1), Apinayé (§3.3.2) and Kĩsêdjê (§3.3.3), there are also some differences that we will find again in Panará (§3.4).

The history of contact of the Timbira was lengthy and intermittent. Some Timbira groups contacted Western society in the 17th century, while the Parkatêjê underwent contact as recently as 1955 (Instituto Socioambiental 2017). There are currently six peoples that consider themselves distinct within the Timbira group: Canela Apanyekrá, Canela Ramkokamekrá, Gavião Parkatêjê, Gavião Pykopjê, Krahô and Krinkatí. They live in the Brazilian states of Maranhão, Pará and Tocantins, in several indigenous lands.

The morphosyntax of the Canela Apanyekrá variety was studied by Alves (2004), who subsequently researched diachronic aspects of the language with

Spike Gildea. This section draws information from Alves (2004, 2010) and Alves & Gildea (2016).[5] Glosses are adapted to the analysis of case marking explored here.

Main clauses present verbs in a short form, and case is indexed in the pronominal paradigm that is used. Nominative pronouns cross-reference the single argument of intransitive verbs and the external argument of transitive verbs (195). A separate accusative paradigm cross-references the internal object of transitive verbs (196).

(195) a. wa ma mɔ̃
1SG.NOM DIR go
'I'm going.'
(Alves 2004: 67)

b. ka krɛ
2SG.NOM sing
'You sing/are singing.'
(Alves 2010: 453)

(196) a. kahãj a= pə
woman 2SG.ACC carry
'The woman carries you.'
(Alves 2010: 453)

b. ka i= pupu
2SG.NOM 1SG.ACC see
'You see me.'
(Alves 2010: 452)

In a clause where the verb appears in the non-finite long form, case marking has an ergative pattern. Besides the rather straightforward cases of subordination, in Timbira the recent past also causes the verb to appear in its non-finite form and, consequently, the case marking pattern is ergative (197b).

(197) a. wa kwər ke
1SG.NOM manioc grate.SH
'I'm grating manioc.'
(Alves 2004: 21)

5. The case marking alignment pattern that Alves & Gildea (2016) call "nominative-absolutive" is not addressed here but in a later section (§3.5).

b. i tɛ kwər ken
1SG.ABS ERG manioc grate.LG
'I grated manioc.'
(Alves 2004: 21)

In the context of non-finite long form verbs, single arguments of transitive verbs and internal arguments of transitive verbs pattern together in being cross-referenced with an absolutive pronominal clitic paradigm, and as lexical noun phrases they appear in a morphologically unmarked form. External arguments of transitive verbs are marked with an ergative morpheme *tɛ*. In Timbira, the ergative morpheme marks lexical noun phrases as well as pronouns.

(198) a. i= tʃwər
1SG.ABS bathe.NF
'I bathed.'
(Alves 2010: 471)

b. a= wrək
2SG.ABS descend.NF
'You descended.'
(Alves 2010: 448)

c. kahãj tɛ iʔ= pən.
woman ERG 3SG carry.NF
'The woman carried him.'
(Alves 2010: 447)

d. ta tɛ kuhɨ pĩr.
rain ERG fire extinguish.NF
'The rain extinguished the fire.'
(Alves 2004: 108)

As is illustrated in the examples above, Timbira sentences adhere to the strict verb finality that is typical of Jê languages, with the presence of certain predicates that linearly follow the verb but are in fact predicates that take the clause as their dependent. As elsewhere in the family, the verbs in such dependent sentences present the non-finite form that is required in all types of dependent sentences, and case marking shows an ergative pattern.

(199) a. wa a= pupu
1SG.NOM 2SG.ACC see
'I see you.'
(Alves 2004: 156)

b. [i tɛ a= pupun] narɛ
1SG.ABS ERG 2SG.ABS see.NF NEG
'I didn't see you.'
(Alves 2010: 471)

Thus, Timbira has three different case-sensitive pronominal paradigms. Absolutive and accusative bound pronouns are distinguished in the third person, like they are in Mẽbêngôkre (table 3.6) or Apinayé (table 3.8). However, Timbira lacks a dedicated pronominal paradigm for ergative case. Instead, ergative case is marked on noun phrases with a dedicated morpheme *tɛ*. In the case of pronominal ergatives, ergative morphology is affixed to a pronominal base that is identical to the absolutive pronoun in a predictable way.

	Absolutive	Accusative	Nominative
1SG	i	i	wa
1INCL	pa(ʔ)	pa(ʔ)	ku
2SG	a	a	ka
3SG	i(ʔ)/h/∅	ku	ke/∅

Table 3.14: Timbira (Apanyekrá) pronoun paradigms. Adapted from Alves (2004, 2010).

Like in Mẽbêngôkre, in certain contexts an emphatic pronoun appears to the left of the clause (200), although its left peripheral position is not obligatory. In Timbira, this gives rise to a mixed pattern where internal arguments are marked with absolutive case and external arguments are marked with nominative case. In the presence of certain TAME elements, like irrealis *ha* (200-200b), we can see that the emphatic pronoun is in the nominative form even if the proclitic corresponds to the absolutive paradigm. In ergative contexts, namely with non-finite verbs, the emphatic pronoun is ergative (200c).

(200) a. wa ha ŋõr
1SG.NOM IRR sleep
'I'm going to sleep.'
(Alves 2004: 106)

b. ka ha a= ku
2SG.NOM IRR 2SG.ABS eat
'You're going to eat it.'
(Alves 2004: 157)

c. i tɛ karɛ kãm i= katɔ̃k
1SG ERG COW LOC 1SG.ABS shoot
'I shot at the cow.'
(Alves 2004: 60)

Timbira presents a variation on the Northern Jê patterns of case marking. Accusative and ergative alignments are tied to the presence of finite and non-finite verbs in the clause, as is the norm in the entire family. In accusative alignment, case is marked on the pronominal paradigm. In ergative alignment, however, case marking resembles that of : there is an independent ergative morpheme that marks lexical noun phrases as well as pronouns. Unlike Kĩsêdjê and Tapayuna, Timbira (Apanyekrá) has no exponent of nominative case besides pronominal person-case syncretism.

	Pronoun paradigm	Marking on nouns
Non-finite verb	ergative	ergative
Finite verb	accusative	-

Table 3.15: Timbira case marking.

Besides the ergative marker, the pronominal paradigms that cross-reference arguments also appear in an ergative pattern. The absolutive paradigm, with third person *i?*, doubles both the single argument of intransitive verbs and the internal argument of transitive verbs. In contrast, the external argument of transitive verbs is cross-referenced with the accusative paradigm, with third person *ku*.

3.4 Panará

The case marking morphology of Panará was initially described by Dourado (2001, 2003, 2004). I have presented summarized accounts of Panará case marking (Bardagil 2015; Bardagil 2018), although those descriptions and analyses are superseded by the present chapter. In what follows we will see that the characteristics of Panará morphological case depart from what we have seen so far in this chapter. Unlike in all the other nine Jê languages, in Panará an ergative case marking is consistently present independently of both clause type and verb form.

As opposed to the Jê languages previously examined in this chapter, Panará clauses are not subject to a constraint on verb-finality (see §2.4). The postverbal position is available to the single argument of intransitive verbs and the internal and external arguments of transitive verbs (201), with no prosodic marking of dislocation.

(201) a. *Postverbal intransitive argument*

Jy= ra= wâ inkjẽ.
INTR 1SG.ABS born 1SG
'I was born.' (txt)

b. *Postverbal transitive internal argument*

Kô ho nẽ= s= apôpô tititi.
stick INS 1PL.ERG 3SG.ABS pierce armadillo
'We stabbed the armadillo with a stick.' (txt)

c. *Postverbal transitive external argument*

Swankjara jõ inpe ka= ∅= sũũ inkjẽ hẽ.
ancient POSS true IRR 1SG.NOM say 1SG ERG
'I will tell a real story of the ancients.' (txt)

d. *Postverbal transitive external and internal arguments*

Rê= ∅= pẽẽ= npari inkjẽ hẽ topjâpjâ Jakiô.
1SG.ERG 3SG.ABS speak hear 1SG ERG grandfather Jakjô
'I listened to my grandfather Jakjô.' (txt)

In the remainder of this section I offer a description of the exponence of case in Panará. Section 3.4.1 describes case morphology on nominals, and section 3.4.2 looks at pronominal clitics.

3.4.1 Case exponence on nominals

In Panará, the case marking of core arguments is ergative. The single argument of an intransitive clause (*ka* in 202a) and the internal argument of a transitive clause (*inkjẽ* in 202b) appear in a morphologically unmarked form. As for the external argument of a transitive clause (*ka* in 202b), it appears with a /ẽ/ *hẽ* morpheme that marks ergative case.

(202) a. Ka jy= a= tẽ.
2SG INTR 2ABS fall
'You fell down.' (el)

b. Ka hẽ ka= ra= sisyri inkjẽ.
2SG ERG 2ERG 1ABS hit 1SG
'You hit me.' (el)

Unlike the previously examined Northern Jê languages (2.2.2.3), Panará free pronouns are impervious to case. There is a single paradigm of strong pronouns (3.16) that remain morphologically unmarked in absolutive case and receive ergative marking in ergative case. As seen in the table, these pronouns do not present number syncretism but are instead inflected for dual and plural number by means of a suffix.

	Singular	Dual	Plural
1	inkjẽ	inkjẽ + ra	inkjẽ + mẽra
2	ka	ka + ra	ka + mẽra
3	mãra	mãra + ra	mãra + mẽra

Table 3.16: Panará strong pronouns.

The case marking pattern seen for pronouns in (202) also applies to lexical noun phrases (203), with an unmarked absolutive and an ergative marked with *hẽ*.

(203) a. Jy= ∅= pôô kwakriti.
INTR 3SG.ABS arrive spider-monkey
'The spider-monkey arrived.' (el)

b. Joopy hẽ ti= ∅= krẽ swasĩrã.
jaguar ERG 3SG.ERG 3SG.ABS eat w.l.peccary
'The jaguar ate a white-lipped peccary.' (el)

Marking of ergative case in transitive clauses is obligatory. With null anaphora, the case of the dropped noun phrase is recoverable from the pronominal clitics on the predicate head (3.4.2).

Unlike nouns and pronouns, internally-headed relative clauses (§2.4) in the position of the ergative argument cannot be marked with ergative case (204).

(204) a. Inpy hẽ ti ∅= pĩri kjyti.
man ERG 3SG.ERG 3SG.ABS kill tapir
'The man killed a tapir.' (el)

b. *[Inpy jy= ∅= pôô] hẽ ti ∅= pĩri kjyti.
man INTR 3SG.ABS arrive ERG 3SG.ERG 3SG.ABS kill tapir
'The man who arrived killed a tapir.' (el)

c. [Inpy jy= ∅= pôô] ti ∅= pĩri kjyti.
man INTR 3SG.ABS arrive 3SG.ERG 3SG.ABS kill tapir
'The man who arrived killed a tapir.' (el)

In the case of nominals morphologically marked for dual or plural number, ergative case is not indexed with *hẽ*. Instead, an allomorph of number suffixes that indexes ergative case is used. The absolutive or morphologically unmarked forms are *-ra* 'dual' and *-mẽra* 'plural' (205a). When number suffixes appear on an ergative argument, rather than *-(*mẽ*)*ra hẽ* they surface as -(*mẽ*)*rân* [(mẽ)rəŋ] (205b).

(205) a. Swankja-ra-mẽra jy= ra= pôô.
ancient-NMLZ-PL INTR 3PL.ABS arrive
'The ancients arrived.' (txt)

b. Swankja-ra-mẽrân nê= ∅= pari kjyti.
ancient-NMLZ-PL.ERG 3PL.ERG 3SG.ABS kill.PLAC tapir
'The ancients killed tapir.' (txt)

Panará ergative case morphology has been described as a *hẽ* morpheme for singular, and nasalization of the last vowel in dual and plural (Dourado 2001:

p.91; Dourado 2003: p.1). This is however an inaccurate generalization of the case-sensitive allomorphy of number suffixes as seen in (205).

There is no nasalization, and no allomorph of the ergative that is conditioned by the number features of the noun phrase, as illustrated by the presence of *hẽ* in plural noun phrases that lack number morphology (206c). As (206d) illustrates, nasalization of the lexeme's last vowel as an exponent of ergative case is ungrammatical.[6]

(206) a. Jôriti hẽ ti= ∅= kuri.
coll.peccary ERG 3SG.ERG 3SG.ABS eat
'The collared peccary ate'. (el)

b. Jôriti-mẽrân nẽ= ∅= kuri.
coll.peccary-PL.ERG 3PL.ERG 3SG.ABS eat
'The collared peccaries ate'. (el)

c. Jôriti inkjêti hẽ nẽ= ∅= kuri.
coll.peccary many ERG 3PL.ERG 3SG.ABS eat
'Many collared peccaries ate'. (el)

d. * Jôritĩ nẽ= ∅= kuri.
coll.peccary 3PL.ERG 3SG.ABS eat
'The collared peccaries ate'. (el)

Number morphology as an exponent of ergative and absolutive case appears to be a Panará innovation within the Jê family, as it has not been observed in the other nine extant Jê languages. The case-sensitive allomorphs of number morphology are summarized in table 3.17.

	Singular	Dual	Plural
Absolutive	∅	-ra	-mẽra
Ergative	∅	-rân	-mẽrân

Table 3.17: Panará number suffixes.

In coordinated DPs, the ergative morpheme *hẽ* appears in a receiving-type unbalanced coordination construction.[7] It attaches only once, at the end of the last coordinate term (207).

6. I thank Myriam Lapierre for bringing this to my attention.
7. "[…] only one conjunct has the grammatical features associated with the whole conjunction phrase. This type is typically one where the conjunction phrase is in a position which is marked for case, but where only one conjunct is case-marked." (Johannessen 1998: 8)

(207) Perankô mẽ Mĩkre hẽ ti= mẽ= ∅= kre kwy.
Perankô and Mĩkre ERG 3SG.ERG DU 3SG.ABS cook manioc
'Perankô and Mĩkre cooked manioc.' (el)

Turning to the semantic properties of ergative arguments, an agentive role is not a precondition for ergative case marking. This is in line with existing accounts in the typological literature:

> "It should be noted initially that there is bound to be a high correlation between ergative noun phrases and agentive noun phrases simply because As are typically high on the scale of agentivity; this is a factor quite independent of ergativity, however: as pointed out to me by Susumu Kuno, Japanese has a rather strong agentivity requirement on As, but no morphological or syntactic ergativity correlating with this." (Comrie 1978: 366)

This issue, namely the degree of equivalence between ergative case and agentivity, has been recently discussed by generative syntacticians (Bruening 2007; Deal 2010) in the context of the debate on the existence of universal mechanisms behind all ergative case systems (see §5.2).

In Panará, agentivity or volition are quite clearly not a requisite for a noun phrase to be marked with ergative case, which is also found on nonagentive causers, undergoer themes, or experiencers of psych predicates (208).

(208) a. *Nonagentive causer*
Inkin Kjêpyti, ti= ∅= pĩri kwyjankô hẽ.
good Kjêpyti 3SG.ERG 3SG.ABS kill manioc.juice ERG
'Kjêpyti was nice, manioc juice killed her.'[8] (obs)

b. *Theme*
Inkô hẽ ti= ∅= pu pârikâ amã.
water ERG 3SG.ERG 3SG.ABS full canoe INES
'Water filled the canoe.' (el)

c. *Psych-verb*
Ka hẽ ka= s= unpa nãkãã.
2SG ERG 2SG.ERG 3SG.ABS fear snake
'You're afraid of snakes.' (obs)

8. Bitter varieties of manioc contain toxic levels of cyanide.

Rather than ergative case being causally connected to the semantic properties of arguments, in Panará all the external arguments of transitive verbs are uniformly marked with ergative case. This can be seen in one clear instance of a valency-increasing operation. The transitivizer /ɔ/ *ho* can add an external argument to an intransitive verb. In that case, the external argument is marked with ergative case. An intransitive verb like *sõti* 'to sleep' or *katoo* 'to exit' (209) has a single argument that appears in the unmarked absolutive form.

(209) a. Ka jy= a= sõti.
2SG INTR 2SG.ABS sleep
'You sleep.' (el)

b. Ka jõpãã jy= ∅= sõti.
2SG child INTR 3SG.ABS sleep
'Your child sleeps.' (el)

c. Ka jy= a= katoo kukre pêê.
2SG INTR 2SG.ABS exit house ABL
'You exited from the house.' (el)

When these intransitive verbs become transitivized with the addition of *ho*, the same argument distribution of regular transitive verbs is observed: the external argument, introduced as the causer, receives ergative case marking with *hẽ* and the internal argument has the unmarked absolutive form (210).

(210) *Causative*

a. Ka hẽ ka= ho= ∅= sõti ka jõpãã.
2SG ERG 2SG.ERG CAUS 3SG.ABS sleep 2SG child
'You made your child sleep [You slept your child].' (el)

b. Inkjẽ hẽ rê= ho= katoo ka.
1SG ERG 1SG.ERG CAUS exit 2SG
'I sent you away (e.g. to bring something).' (el)

3.4.1.1 Case in dependent clauses

The case marking of arguments in Panará dependent clauses is identical to that of main clauses. This is illustrated clearly in the case of relative and complement clauses (described in §2.4). It is worth noting that the clitics that cross-reference the ergative and absolutive arguments (§3.4.2), also present when argument noun phrases are omitted with null anaphora, match the case that is morphologically marked on the noun phrases.

The examples in (211) illustrate the case marking alignment in relative clauses. The ergative-absolutive alignment matches the case marking pattern of main clauses. The single argument of intransitive clauses and the internal argument of transitive clauses have the unmarked absolutive form, while the external argument of transitive clauses has ergative case marking.

(211) a. [Patty hẽ ti= ∅= pĩra swasĩrã] rê= ∅=
Patty ERG 3SG.ERG 3SG.ABS kill peccary 1SG.ERG 3SG.ABS
ku= krẽ.
chew eat
'I ate the peccary that Patty killed.' (el)

b. Ka hẽ ka= ra= pêê= ∅= pyri [issê rê=
2SG ERG 2SG.ERG 1SG.ABS MAL 3SG.ABS take bow 1SG.ERG
∅= wajãra].
3SG.ABS make
'You stole from me the bow that I made.' (el)

c. [Mãra hẽ ti= ∅= pĩri swasĩrã sipjâ mã] nãsisi
3SG ERG 3SG.ERG 3SG.ABS kill peccary wife DAT sweet
inpe.
real
'The peccary that he killed for his wife was tasty.' (el)

In complement clauses, which occupy the position of the internal argument in perception predicates, case marking is also ergative-absolutive (212).

(212) a. Rê= s= ânpun [tep-antê jy= py= ∅= too]
1SG.ERG 3SG.ABS see fish-NMLZ INTR DIR 3SG.ABS leave
'I saw the fisherman go away.' (el)

b. Rê= s= ânpun [pjoja hẽ ti= ∅= kuri
1SG.ERG 3SG.ABS see pacu ERG 3SG.ERG 3SG.ABS eat
kwansôpy].
worm
'I saw the pacu[9] eat a worm.' (el)

Unlike the nine Jê languages seen previously in the present chapter, Panará arguments always receive ergative-absolutive case marking. In dependent clauses ergative is marked with dedicated case morphology, while absolutive

9. Several species of sweet-water fish that belong to the *Serrasalmidae* family.

is unmarked—just like in main clauses. From a jêologist perspective, what is surprising is not that Panará dependent clauses have an ergative case marking, but rather that this is also the case in main clauses. This is one crucial characteristic that sets Panará apart from the rest of the languages in the family. Chapter 5 expands on this and provides a principled explanation for the exceptionality of Panará dependent clauses.

3.4.2 Case exponence on clitics

In both main and dependent clauses, finite verbs are preceded by a rich series of bound morphemes, ordered sequentially in a preverbal position. The Panará verb complex presents several characteristics of polysynthetic languages (§2.2), among which polypersonalism (Baker 1996; Mattissen 2003). The first slot in the verb complex template corresponds to modal clitics, given on table 3.18.

	Realis	Irrealis	Conditional
Intransitive	jy=	ka=	tu/ta=
Transitive	∅	ka=	ta=

Table 3.18: Panará modal clitics.

Among pronominal clitics are incorporated elements, including both postpositions and nouns. The internal structure of the verb complex is discussed in section 2.2 and repeated in table 3.19. The slots that participate in argument cross-reference are marked in bold.
Multiple participants are cross-referenced with clitics that function as exponents of the number, person and case features of their associate noun phrases. Leaving oblique participants aside in this chapter (see instead §4.2), both the ergative and absolutive arguments are cross-referenced with clitics on the verb complex (213).

(213) a. *Intransitive*
Jy= py= mẽ= ra= pôô.
intr iter du 1sg.abs arrive
'The two of us are back.' (obs)

b. *Transitive*
Ka hẽ ka= ra= sisyri inkjẽ.
2sg erg 2sgerg 1sgabs hit 1sg
'You hit me.' (el)

Position	Slot	Function
Proclitic	1	mood
	2	**ergative**
	3	**second person number**
	4	reciprocal, reflexive
	5	iterative, direction
	6	dative
	7	postposition
	8	**dual**
	9	noun, classifier, dative
	10	**absolutive**
Verb	11	one—or more, in a serial construction

Table 3.19: The Panará verb complex.

3.4.2.1 Ergative cross-reference

The ergative participant is cross-referenced with a clitic that appears on the first argument slot in the verb complex (214).

(214) | mood | **erg** | … | abs | verb |

The ergative and the absolutive slots can be clearly teased apart by the occurrence of a bound morpheme in any of the intervening positions, such as dual, adposition-doubling (§4.2.1), a directional, or an iterative, as in (215).

(215)

|mood|	|erg|	|iter|	|abs|	|verb|
∅=	rê=	py=	k=	ânpun.
real.tr	1sg.erg	iter	2sg.abs	see

'I saw you again.' (el)

Ergative clitics can be omitted, especially if the ergative noun phrase cross-referenced by them is overtly present in the clause rather than dropped (216).

(216) a. Pukjora hẽ (ti=) ∅= pĩri apjã.
Pukjora erg (3sg.erg) 3sg.abs kill turtle
'Pukjora killed a turtle.' (el)

b. Joopy hẽ (ti=) ∅= kuri tepi.
jaguar erg (3sg.erg) 3sg.abs eat fish
'The jaguar eats fish.' (obs)

The paradigm of ergative clitics is illustrated for singular and plural in (217).

(217) *Ergative clitics*

a. *First person, singular*

Inkjẽ hẽ rê= s= ânpun.
1SG ERG 1SG.ERG 3SG.ABS see
'I saw it.' (el)

b. *Second person, singular*

Ka hẽ ka= ∅= s= ânpun.
2SG ERG 2ERG 2SG 3SG.ABS see
'You saw it.' (el)

c. *Third person, singular*

Mãra hẽ ti= s= ânpun.
3SG ERG 3SG.ERG 3SG.ABS see
'S/he saw it.' (el)

d. *First person, plural*

Inkjẽ-mẽrân nẽ= s= ânpun.
1SG-PL.ERG 1PL.ERG 3SG.ABS see
'We saw it.' (el)

e. *Second person, plural*

Ka-mẽrân ka= rê= s= ânpun.
2SG-PL.ERG 2ERG 2PL 3SG.ABS see
'You guys saw it.' (el)

f. *Third person, plural*

Mãra-mẽrân nẽ= s= ânpun.
3SG-PL.ERG 3SG.ERG 3SG.ABS see
'They saw it.' (el)

With the exception of second person ergative, there is one clitic pronoun for every combination of person, number and case. I will take up the issue of the exponence of second person in section 3.4.2.3. The full paradigm of the ergative clitic is given in table 3.20.
It is worth noting that the ergative paradigm has no null allomorph, which is otherwise found at least once in other paradigms such as those of modal and absolutive clitics.

	Singular	Dual	Plural
1	rê	rê … mẽ	nẽ
2	ka	ka … mẽ	ka rê
3	ti	ti … mẽ	nẽ

Table 3.20: Panará ergative clitics.

3.4.2.2 Absolutive cross-reference

The absolutive participant is cross-referenced with an absolutive clitic that appears on the right of the sequence of preverbal morphology, in the second argument slot (218).

(218) | mood | ERG | … | **ABS** | verb |

The alignment of case marking for absolutive clitics mirrors case marking on absolutive noun phrases. The same paradigm of clitics that cross-reference the intransitive absolutive also cross-references the transitive absolutive. In both cases, the clitic appears on the same slot immediately to the left of the verb (219).

(219) a. *Intransitive*

|mood| |ABS| |verb|
Jy= ra= wâ inkjẽ.
INTR 1SG.ABS born 1SG
'I was born.' (txt)

b. *Transitive*

|mood| |ERG| |ABS| |verb|
∅= ti= ra= pari pjã hẽ? Nãnkjo-anka hẽ.
REAL.TR 3SG.ERG 1PL.ABS kill Q ERG hot-bad ERG
'What killed them? A bad illness did.' (txt)

The main paradigm of absolutive clitics is illustrated in (220) for intransitive verbs, and in (221) for transitive verbs.

(220) *Full absolutive clitics, intransitive verb*

a. *First person, singular*

Inkjẽ jy= ra= pôô.
1SG INTR 1SG.ABS arrive
'I arrived.' (el)

b. *Second person, singular*
Ka jy= ∅= a= pôô.
2SG INTR 2SG 2ABS arrive
'You arrived.' (el)

c. *Third person, singular*
Mãra jy= ∅= pôô.
3SG INTR 3SG.ABS arrive
'S/he arrived.' (el)

d. *First person, plural*
Inkjẽ-mẽra jy= ra= pôô.
1SG-PL INTR 1PL.ABS arrive
'We arrived.' (el)

e. *Second person, plural*
Ka-mẽra jy= rê= a= pôô.
2SG-PL INTR 2PL 2ABS arrive
'You guys arrived.' (el)

f. *Third person, plural*
Mãra-mẽra jy= ra= pôô.
3SG-PL INTR 3PL.ABS arrive
'They arrived.' (el)

(221) *Full absolutive clitics, transitive verb*

a. *First person, singular*
Mãra hẽ ti= ra= po.
3SG ERG 3SG.ERG 1SG.ABS hurt
'He hurt me.' (el)

b. *Second person, singular*
Mãra hẽ ti= ∅= a= po.
3SG ERG 3SG.ERG 2SG 2ABS hurt
'He hurt you.' (el)

c. *Third person, singular*
Mãra hẽ ti= ∅= po.
3SG ERG 3SG.ERG 3SG.ABS hurt
'He hurt him.' (el)

d. *Third person, incorporation*
Mãra hẽ ti= sikja= ∅= po.
3SG ERG 3SG.ERG hand 3SG.ABS hurt
'He hurt him in the hand.' (el)

e. *First person, plural*
Mãra hẽ ti= ra= po.
3SG ERG 3SG.ERG 1PL.ABS hurt
'He hurt us.' (el)

f. *Second person, plural*
Mãra hẽ ti= rê= a= po.
3SG ERG 3SG.ERG 2PL 2ABS hurt
'He hurt us.' (el)

g. *Third person, plural*
Mãra hẽ ti= ra= po.
3SG ERG 3SG.ERG 3PL.ABS hurt
'He hurt them.' (el)

In a restricted class of verb roots that have a vowel-initial theme, a different form of the absolutive clitic is used. I will call this the reduced paradigm of absolutive clitics, as these allomorphs mostly consist of consonants. The paradigm is illustrated in (222).

(222) *Reduced absolutive clitics*

a. *First person*
Ti= r= unpa.
3SG.ERG 1SG.ABS fear
'He's afraid of me.' (el)

b. *Second person*
Ti= k= unpa.
3SG.ERG 2SG.ABS fear
'He's afraid of you.' (el)

c. *Third person*
Ti= s= unpa.
3SG.ERG 3SG.ABS fear
'He's afraid of it.' (el)

d. *Third person (incorporation)*
Ti= nãkãã= j= unpa.
3SG.ERG snake 3SG.ABS fear
'He's afraid of the snake.' (el)

Dourado (2001) considered the third person /s/-/j/ alternation in this class of verbs (and also in some nominals and adpositions) an instance of RELATIONAL PREFIXES, a class of morphemes that has been proposed for a number of Amazonian languages (Rodrigues 1953, 2010). Relational prefixes indicate whether a stem is contiguous with its selecting head (e.g. a possessor, a verb) or whether it appears in isolation from it, that is, non-contiguous with its selecting head.

Building on Dourado's view, Salanova (2011b) puts forward a different approach to Panará verbs like *unpa* and their absolutive cross-reference morphology as seen in (222). He argues that in (222) the /j/ segment is not a morpheme but actually a part of the root. In that approach, the form in (222d) corresponds to the bare root. Adopting a constraint first proposed by D'Angelis (1998) for Macro-Jê languages that bans sequences of consonants that share the same articulator, Salanova claims that (222c) is actually /s+juma/. Since /s/ and /j/ are both produced with the same articulator, the tip of the tongue, the sequence would need to be simplified (223) and would surface as [sum͡pa].[10]

(223) /s+juma/ → /s+∅uma/ → [sum͡pa]

However, positing /j-/ initial themes for the subclass of verbs with which absolutive clitics appear in the paradigm in (222) makes the incorrect prediction that second person absolutive is not [kum͡pa] but rather *[kjum͡pa]. Unlike *[sj] or *[rj] sequences, in [kj] the two consonants are each produced with a different articulator, namely the tongue body (for [k]) and the tip of the tongue (for [j]). In fact, there is no doubt that in Panará [kj] sequences are allowed (224).

(224) a. [kjɔkjɔ] 'hummingbird'
b. [kjãpɔ] 'manioc bread'
c. [kjekəsorã] 'mulberry'
d. [kjɯ] 'cold'

10. The [m͡p] sequence results from post-oralization of /m/ followed by a phonemically oral vowel (§2.1.1.1).

If the roots of Panará verbs like *unpa* 'to fear' or *anpun* 'to see' were /j-/ initial, /juma/ and /jamuŋ/ respectively, there is no reason why the second person absolutive form would be [k-] initial (225) and not [kj-] initial (226).

(225) a. [kum͡pa] 'X is afraid of you'

b. [kəm͡puŋ] 'X sees you'

(226) a. *[kjum͡pa] 'X is afraid of you'

b. *[kjam͡puŋ] 'X sees you'

Instead, I argue that neither /s/ nor /j/ are part of the verb's root. They are both simply third person absolutive clitics that correspond to a second paradigm, which is limited to a subclass of vowel-initial roots. While /s/ corresponds to a generic 3SG.ABS absolutive, /j/ is a dedicated allomorph that occupies the absolutive clitic slot when the absolutive is incorporated. This approach makes the reduced paradigm unproblematic, as it predicts the observable surface forms.

The two paradigms of absolutive clitics are given in table 3.21, with the reduced paradigm between parentheses.

	Singular	Dual	Plural
1	ra (r)	mẽ … ra (r)	ra (p)
2	a (k)	mẽ … a (k)	rê … a (rê … k)
3	∅ (s/j)	mẽ … ∅ (s/j)	ra (r)

Table 3.21: Panará absolutive clitics.

In the following section I discuss the form of second person clitics, which is morphologically more complex than first and third person clitics, as well as the cross-reference of dual number participants.

3.4.2.3 Discontinuous exponence

The Panará ergative and absolutive cross-reference systems examined in the previous sections consist of a series of pronominal clitics that reflect three types of features of the argument noun phrases with which they are associated: person, number and case.

However, in some cases there is no one-to-one correspondence between one clitic and one cross-referenced noun phrase. In certain cases we instead find a DISCONTINUOUS EXPONENCE pattern, where the features of a single noun phrase are reflected on more than one clitic. Campbell (2012) proposes the following definition:

> "A pattern of morphological exponence is discontinuous if a set of feature categories that can be expected to be bundled on a single node in the syntax (namely the agreement features of a single argument) is expressed by distinct morphemes."
> (Campbell 2012: 19)

The clitics that constitute the exponents of argument noun phrases on Panará verbs present three instances of discontinuous exponence: (a) second person number, (b) dual number, and (c) person and case in irrealis mood. The organization of the clitics that index person and number in irrealis mood is described in the following section (§3.4.2.4). In the present section I discuss first the exponence of second person in cross-reference morphology, and then I do the same with dual number.

The existence of discontinuous exponence is attested in multiple languages, and three broad types can be distinguished (Campbell 2012: 17). In COREFERENTIAL EXPONENCE (227a) "a set of features that can be expected to be bundled on a single node in the syntax (namely agreement features, person and number shown here) are expressed by distinct morphemes." COMBINATORIAL EXPONENCE (227b) "involves a single feature category in the syntax (person or tense, for instance) for which multiple, distinct values are expressed in the morphology." Finally, in MULTIPLE EXPONENCE (227c) "a feature category is realized by more than one morph, and each instantiation expresses the same value." The three types of discontinuous exponence are listed and exemplified in (227).

(227) a. *Coreferential exponence*
Person–**Verb**–Number

b. *Combinatorial exponence*
Verb–Tense_1–Tense_2

c. *Multiple exponence*
Number–**Verb**.Number
(Campbell 2012: 17)

Second person number

In Panará, second person is an instance of both coreferential exponence and multiple exponence: one morpheme indexes person and case, and a separate morpheme indexes person and number (228).

(228) *Panará second person exponence*
Person.Number–Person.Case–**Verb**

Panará argument noun phrases have three features that are reflected by the clitics that cross-reference them on the verb: person, number and case. In the Panará ergative and absolutive cross-reference systems seen in the previous sections, second person plural differentiates itself from first and third person in that there are two clitics that index the argument, rather than one (229).

(229) a. *First person, plural*
Inkjẽ-mẽra jy= ra= pôô.
1SG-PL INTR 1PL.ABS arrive
'We arrived.' (el)

b. *Second person, plural*
Ka-mẽra jy= rê= a= pôô.
2SG-PL INTR 2PL 2ABS arrive
'You guys arrived.' (el)

c. *Third person, plural*
Mãra-mẽra jy= ra= pôô.
3SG-PL INTR 3PL.ABS arrive
'They arrived.' (el)

The second person clitics that alternate with first and third person clitics index exclusively person (second) and case (either ergative or absolutive). Second person number is instead indexed on a different slot in the verb complex that is reserved for the exponent of second person number and thus is also an exponent of second person (230).

(230) | mood | ERG | 2NUM | ITER | … | ABS | verb |

Two allomorphs are possible in the second person number slot (231).

(231) ∅ ↔ [2, SG]
rê ↔ [2, PL]

The examples in (232) illustrate the placement of the two exponents of second person plural arguments.

(232) a. *Second person plural ergative*

	|mood|	|ERG|	|2NUM|	|ABS|	|verb|
Ka-mẽrân	∅=	ka=	rê=	r=	ânpun.
2SG-PL.ERG	REAL.TR	2ERG	2PL	1SG.ABS	see

'You guys saw me.' (el)

b. *Second person plural absolutive, intransitive*

	|mood|	|2NUM|	|DIR|	|ABS|	|verb|
Ka-mẽra	jy=	rê=	py=	a=	too.
2SG-PL	INTR	2PL	DIR	2ABS	leave

'You guys went away.' (el)

c. *Second person plural absolutive, transitive*

	|mood|	|ERG|	|2NUM|	|ABS|	|verb|	
Mãra	hẽ	∅=	ti=	rê=	k=	ânpun	ka-mẽra.
3SG	ERG	REAL.TR	3SG.ERG	2PL	2ABS	see	2SG-PL

'He saw you guys.' (el)

The second person number slot can be located clearly in the verb complex. It occurs to the right of the ergative clitic slot (232a) and to the left of both the directional/iterative slot (232b) and the absolutive clitic slot (232c).

The rampant cross-case syncretisms of Panará clitic paradigms could lead some to wonder if 2PL *rê* is the same morpheme as 1SG.ERG *rê*. A transitive clause with a first person singular ergative and a second person plural absolutive (233) shows that both morphemes coexist each in their slot in the verb complex.

(233)

	|ERG|	|2NUM|	|ABS|	|verb|	
Inkjẽ	hẽ	rê=	rê=	k=	ânpun	ka-mẽra.
1SG	ERG	1SG.ERG	2PL	2ABS	see	2SG-PL

'I saw you guys.' (el)

The evidence presented in this section makes a strong case for the clitic that indexes second person number, specifically singular and plural, being clearly separate from the clitic that indexes the case-person bundle for second person arguments. This is only the first instance of discontinuous exponence in Panará that I discuss.

Dual number

In Panará, dual is also a case of discontinuous exponence. Unlike second person number, dual number is consistently realized on a separate clitic for all persons.

As schematized in (234), a dual argument noun phrase is cross-referenced with two different clitics: one that indexes exclusively dual number, and one

that indexes person and case. The person-case clitic exhibits the same form as the singular number clitic.[11]

(234) *Panará dual number exponence*
Number$_{DU}$–Person.Case.Number$_{SG}$–**Verb**

Since number is indexed twice in the verb complex, and different number values are expressed on each of the two morphemes, the cross-reference morphology of dual number arguments in Panará is an instance of combinatorial exponence (227b). This is exemplified in (235) for an intransitive absolutive participant.

(235)

	|mood|	|DU|	|ABS|	|verb|
Inkjẽ-ra	jy=	mẽ=	ra=	pôô.
1SG-DU	INTR	DU	1SG.ABS	arrive

'The two of us arrived.' (el)

Since the dual number clitic is autonomous from the person-case-(number) clitics, one could imagine that in a transitive clause, with two arguments present, dual number might give rise to ambiguity. This is in fact the case. The dual morpheme *mẽ* is able to target either the ergative argument, the absolutive argument, or both. This means that in a clause with null anaphora of both arguments, the cross-reference of dual number is potentially ambiguous (236).

(236)

Ka=	mẽ=	r=	ânpun.
2.ERG	DU	1SG.ABS	see

'The two of you saw me.' (el)
or 'You$_{SG}$ saw the two of us.'
or 'The two of you saw the two of us.'

A sentence like (236) can have three different readings, depending on the mapping of the dual number feature to the ergative and/or absolutive arguments. In (236), dual *mẽ* can cross-reference the ergative argument (237a), the absolutive argument (237b), or both arguments (237c).

(237) a.

Ka-rân	ka=	mẽ=	r=	ânpun	inkjẽ.
2SG-PL.ERG	2.ERG	DU	1SG.ABS	see	1SG

'You two saw me' (el)

11. For first and third person, at least. As seen previously in the present section, second person clitics index number separately from the exponent of person and case.

b. Ka hẽ ka= mẽ= r= ânpun inkjẽ-ra.
2SG ERG 2.ERG DU 1SG.ABS see 1SG-DU
'You$_{SG}$ saw us two.' (el)

c. Ka-rân ka= mẽ= r= ânpun inkjẽ-ra.
2SG-PL.ERG 2.ERG DU 1SG.ABS see 1SG-DU
'You two saw us two.' (el)

In this section I have described two areas of the verbal cross-reference system in Panará that present discontinuous exponence. For second person arguments, two different slots in the verb complex correspond to a person-number exponent and a person-case exponent. For all arguments, dual number is indexed in the verb complex by an exponent that is separate from a person-number-case exponent that cross-references the same argument. In the next section, I describe the Panará cross-reference system in irrealis mood, where discontinuous exponence is prevalent.

3.4.2.4 Cross-reference in irrealis

In the realis and conditional moods, the case of clitic pronouns has the one-to-one correspondence with the case of the argument noun phrases associated to them that we have seen above, with the only exceptions of second person number (singular and plural) and dual number (for all persons). However, in irrealis mood the modal, ergative and absolutive clitics are pieced together in a way that produces an apparent mismatch with the case marking on argument noun phrases.

Irrealis intransitive

In the cross-reference system as seen in the previous sections, the ergative and the absolutive participant are each associated to a specific slot in the verb complex. In irrealis mood, in an intransitive clause with only one core argument, both the first and the second argument slots in the verb complex are active and share the morphological exponence duty. The sentences in (238) illustrate the irrealis cross-reference clitics for intransitive absolutive participants, with their glosses provisionally left blank.

(238) *Irrealis, intransitive verb*

a. *First person, singular*
Inkjẽ ka= ∅= ∅= tẽri.
1SG IRR leave.IRR
'I will leave.' (el)

b. *Second person, singular*
Ka ka= ti= a= tẽri.
2SG IRR leave.IRR
'You will leave.' (el)

c. *Third person, singular*
Mãra ka= ti= ∅= tẽri.
3SG IRR leave.IRR
'S/he will leave.' (el)

d. *First person, plural*
Inkjẽ-mẽra ka= ∅= ∅= mõri.
1SG-PL IRR leave.PLAC
'We will leave.' (el)

e. *Second person, plural*
Ka-mẽra ka= ti= rê= a= mõri.
2SG-PL IRR 2PL leave.PLAC
'You all will leave.' (el)

f. *Third person, plural*
Mãra-mẽra ka= ti= ∅= mõri.
3SG-PL IRR leave.PLAC
'They will leave.' (el)

In irrealis, a clitic *ti* appears in the first argument slot for second and third person participants, immediately to the right of irrealis modal clitic *ka*. On the second argument slot, only second person has an overt exponent, the same *a* that indexes a second person absolutive participant in realis mood. First person has no overt exponent on either argument slot. Second person plural (238e) presents the already familiar *rê*. Plural number exponence in first and third person is not different from singular. As the previous sentences show, in irrealis mood the exponents of the intransitive absolutive appear both dispersed and morphologically reduced, when compared to the cross-reference

system in realis mood.[12]

Once again, by paying attention to the slots in the verb complex that intervene between the first and second argument slots it is possible to determine the position of cross-reference clitics in the verb complex (239).

(239) –Pjãn rahã ka= ∅= py= ∅= tẽri inkjẽ?
Q ADES IRR DIR leave.IRR 1SG
'When am I going to leave?' (el)
–Aka-anka hã ka= ti= py= a= tẽri.
day-bad ADES IRR DIR leave.IRR
'You'll go away on saturday.' (el)

We can see that directional *py* occurs between the *ti* and *a* clitics of second person absolutive exponence. The position of irrealis second and third person *ti* to the left of both the iterative/directional slot and the second person plural slot determines the location of this *ti* in the first argument slot, the one otherwise associated with the ergative argument (240). This is exemplified in (241).

(240) | mood | arg.1 | 2NUM | DIR/ITER | arg.2 | verb |

(241)

			|mood|	|arg.1|	|2NUM|	|DIR|	|arg.2|	|verb|
–Pjãn	rahã	ka=	ti=	∅=	py=	a=	pôôj?
Q	ADES	IRR	2/3	2SG	DIR	2	arrive.IRR

'When will you come back?' (obs)

						|mood|	|arg.1|	|DIR|	|arg.2|
–Mỹ=	py=	akun=	mõ	rahã	ka=	∅=	py=	∅=
DIR	ITER	dry.season	go	ADES	IRR	1	DIR	1/3

verb
pôôj
arrive.IRR

'I'll come back in the next dry season.' (obs)

Considering the distribution of the clitics associated with the absolutive argument in the examples above, the cross-reference system for intransitive absolutive noun phrases in irrealis is the following (242).

12. Thanks to Amy Rose Deal for raising the line of analysis developed here.

(242) *Absolutive, intransitive*
∅...∅ ↔ [first person]
ti...a ↔ [second person]
ti...∅ ↔ [third person]

There are two overlapping paradigmatic oppositions in the exponence of the irrealis intransitive absolutive: first person versus non-first person (*∅* vs. *ti*) on the first argument slot, and second person versus non-second person (*a* vs. *∅*) in the second argument slot. These oppositions suggest an exponence of person that targets different traits in each of the slots. I will adapt the person specification proposed by Harley & Ritter (2002) and Béjar & Rezac (2009) for a provisional articulation of the features in the three different persons in Panará, presented in table 6.4. Building on top of a first distinction between third person and speech-act participants, second person is the addressee and first person is the speaker.

Third	Second	First
[person]	[person]	[person]
	[participant]	[participant]
	[addressee]	[speaker]

Table 3.22: Panará persons.

I address again the components of Panará persons and propose a principled analysis of these oppositions in a later discussion (§6.2). For now, given this preliminary person decomposition, for descriptive purposes the paradigm can be characterized as in (243).

(243) *Irrealis intransitive absolutive cross-reference*

a. *Slot 1*
∅ ↔ speaker [spk]
ti ↔ non-speaker [nspk]

b. *Slot 2*
a ↔ addressee [adre]
∅ ↔ non-addressee [nadre]

The paradigm presented above summarizes the exponence of absolutive arguments in irrealis intransitive clauses. For a single absolutive argument, two different clitic slots participate in its exponence, differing only in the expression of person (244).

(244) *Irrealis intransitive absolutive exponence*
Case.Person$_{\text{SPK}}$–Case.Person$_{\text{ADRE}}$–**Verb**

In Campbell's (2012) typology of discontinuous exponence, this constitutes an instance of combinatorial exponence.[13]

Irrealis transitive

In transitive clauses there are two core arguments, each associated with a specific case slot in the verb complex according to the cross-reference system described previously in the present chapter (§3.4.2.1–3.4.2.2). In an irrealis transitive clause, the exponence of participants is not discontinuous anymore. Just like in realis mood, the two case slots are each associated with one of the case-marked arguments (245).

(245) a. Inkjẽ hẽ ka= ∅= ∅= pĩri swasĩrã.
1SG ERG IRR kill peccary
'I'll kill a peccary.'

b. Ka hẽ ka= ti= ∅= pĩri swasĩrã.
2SG ERG IRR kill peccary
'You'll kill a peccary.'

c. Mãra hẽ ka= ti= ∅= pĩri swasĩrã.
3SG ERG IRR kill peccary
'He'll kill a peccary.'

In an irrealis transitive clause, the argument slot that appears immediately to the right of the modal clitic contains a clitic associated with the ergative argument. The paradigm of clitics used in this slot in irrealis mood is not the paradigm that cross-references ergative arguments in realis mood, as evidenced by the lack of first person ergative *rê* and second person ergative *ka*. Instead, the clitic that cross-references the ergative argument corresponds to one half of the exponence of the intransitive absolutive argument, namely the speaker clitic in the first slot (243a) with the *∅/ti* opposition (418).

(246) *Irrealis ergative cross-reference*
∅ ↔ [SPK, ERG]
ti ↔ [NSPK, ERG]

13. As presented in (227), combinatorial exponence "involves a single feature category in the syntax (person or tense, for instance) for which multiple, distinct values are expressed in the morphology."

As for the absolutive argument, in the three examples above the second argument slot has a null exponent, corresponding to the third person singular absolutive argument *swasīrã* 'white-lipped peccary.' Crucially, in (245b) we do not see the second person intransitive *ti…a* discontinuous exponence of irrealis intransitive clauses. This indicates that, just like in realis mood, in irrealis mood the ergative and the transitive absolutive arguments are each associated with their respective argument slots.[14] This is corroborated by the sentences in (247).

(247) a. Ka-mẽrân ka= ti= rê= ra= sikâri inkjẽ.
2SG-PL.ERG IRR NSPK.ERG 2PL 1SG.ABS hit 1SG
'You guys are going to hit me.' (el)

b. Inkjẽ-mẽrân ka= ∅= a= sikâri ka.
1SG-PL.ERG IRR SPK.ERG 2SG.ABS hit 2SG
'We are going to hit you$_{SG}$.' (el)

Examining the irrealis transitive clauses with two speech-act participant arguments in the sentences above shows that the clitic in the second argument slot corresponds to the familiar absolutive paradigm in (248).

(248) *ra* ↔ [1SG.ABS]
a ↔ [2ABS]
∅ ↔ [3SG.ABS]

This also extends into the plural absolutive paradigm, exemplified in (249) for third person.

(249) a. Inkjẽ hẽ ka= ∅= ∅= sikâri mãra.
1SG ERG IRR SPK 3SG.ABS hit 3SG
'I'm going to hit him.' (el)

b. Inkjẽ hẽ ka= ∅= ra= sikâri mãra.
1SG ERG IRR SPK 3PL.ABS hit 3SG
'I'm going to hit them.' (el)

The full picture of cross-reference morphology for core arguments is presented in table 3.23. Even though the case marking on arguments is ergative–absolutive in both realis and irrealis moods, there are two parallel cross-reference systems that are split across this modal distinction. In realis mood, there is a clear-cut ergative/absolutive system with two person-case paradigms that

14. With the familiar exception of second person number.

present some discontinuous number exponence, as seen above, for dual number and second person number. Parallel to the realis system, there is a three-way distinction in the irrealis cross-reference system, where three different case-person paradigms are the exponents of (a) the ergative argument and the absolutive argument in (b) transitive clauses and (c) intransitive clauses.

		ERG		ABS	
		SG	PL	SG	PL
	1	rê	nẽ	ra	ra
REAL	2	ka	ka rê	a	rê a
	3	ti	nẽ	∅	ra

				ABS_{TR}		ABS_{INTR}	
		SG	PL	SG	PL	SG	PL
	1	∅	∅	ra	ra	∅ ∅	∅∅
IRR	2	ti	ti rê	a	rê a	ti a	ti rê a
	3	ti	ti	∅	ra	ti ∅	ti ∅

Table 3.23: Panará argument clitics.

As it stands, the argument cross-reference clitics in irrealis mood are an instance of a TRIPARTITE alignment for the exponence of case (Dixon 1994: 39). That is, the cross-reference paradigm for the single argument of intransitive verbs does not coincide with either of the two arguments of transitive verbs.

However, beyond this descriptive label, we can suspect that the difference is connected to a switch from a full exponence of person features in realis mood to a reduced exponence of person features in irrealis mood, sensitive only to the speaker/addressee distinction. In a later section (§6.2) I propose a derivational analysis of the factors behind the nature of the irrealis cross-reference system.

3.5 Summary

The pattern of morphological exponence of case in Panará described in the previous section is strikingly different from the case marking patterns seen earlier in this chapter for the rest of the Jê languages, in which ergative case alignment is present exclusively in nominal environments.

The contexts that license ergative case across the Jê family, essentialy the domain of a nominal predicate with the exponence of a long-form verbal root, does not correspond to the pattern of case marking that Panará exhibits. In Panará, long forms have been grammaticalized into an independent inflectional system (§2.2.1.2) that bears no effect on the case marking of core arguments.

Structure and case

One of the traits of the case systems of Jê languages is the templatic nature of the clause. There is a strict correspondence between the case that a nominal bears and the clausal positions in which it can appear. In (250) I sketch the template of Jê clauses that emerges from the discussion in the present chapter.

(250) *Classic Jê*

preverbal area	verb complex
emphatic | TAME | NOM/ERG | ABS/ACC	[clitic | verb]

From right to left, we find the verb in its strictly final position preceded by bound pronominal clitics, corresponding to absolutive and accusative pronouns across the family. To the left of this small verb complex is a preverbal area with its own internal configuration: a position for internal argument noun phrases, a position for strong pronouns (nominative or ergative), a position for TAME elements and, on the left end of the clause, the position of noun phrases doubled for emphatic effects, in which pronouns surface case-marked for ergative or nominative.

The Jê clausal configuration above is manifestly different from the non-verb-final structure of Panará clauses. However, in the classic Jê clause there is a suggestive correlate in the internal structure of the Panará verb complex, sketched in (251).

(251) *Panará*

preverbal	verb complex	postverbal
(NP)	[TAME | ERG | … | ABS | verb]	(NP)

The Panará verb complex is a verb-final domain, just like the Jê clause. It presents absolutive clitics immediately to the left of the verb, preceded by a series of elements (incorporated postpositions, directionals, reflexives, among others), in turn preceded by the ergative and nominative clitics, to the left of which are also TAME morphemes, namely the modal clitics.

Outside of that position there is a preverbal area, paired with a postverbal area also outside the scope of the verb package, where argument noun phrases appear and in which they are more often than not pro-dropped. In Panará, noun phrases appear to correspond to the most removed position in the Jê clausal template, the emphatic position where noun phrases always surface case-marked. Consider the sentences in (252).

(252) a. *Kaingang*
ti tõ ãmẽn lɔ tɛ̃ŋ wã
3SG ERG path along go.STV STV
'He went along the path.'
(Urban 1985: 172)

b. *Xavante*
Ãhãta, wahã wa za ĩĩ= mreme.
DEM 1SG.EMPH 1SG.NOM PROSP 1SG.ABS speak
'Then, me, I'm going to speak.'
(Estevam 2011: 359)

c. *Mẽbêngôkre*
Ga nẽ ba a= pumũ.
2SG.NOM NFUT 1SG.NOM 2SG.ACC see
'I saw *you*.' (el)

d. *Panará*
(Inkjẽ hẽ) rê= k= ânpun (ka).
1SG ERG 1SG.ERG 2SG.ABS see 2SG
'I saw you.' (el)

In Panará (252d) the pre- and postverbal positions are not assigned to either one of the arguments. In the language, we encounter verb-initial, verb-medial and verb-final configurations very often in both collected texts and during participant observation. The postverbal position is not a dedicated one, it appears to be a default position for argument noun phrases, if anything. As for the preverbal position, it is clearly not associated with any specific argument. It is more likely sensitive to discourse structure and information packaging. As it falls beyond the scope of this dissertation, Panará information structure is left as a matter to be investigated in further work.

Pluractionality

In his description of Xokleng alignment, Urban (1985) points out that some Xokleng (Southern Jê) verbs present suppletion in form that corresponds to a singular or plural participant (§3.1).

Urban's analysis of this phenomenon considers the suppletive forms as exponents of number agreement for the absolutive argument, resulting in an instance of ergative alignment for verbal agreement. However, this phenomenon is also attested in other Jê languages, and a more general consideration of these cases suggests that the phenomenon observed in Xokleng and in the other languages is PLURACTIONALITY rather than absolutive number agreement.

The core difference between pluractionality, also called VERBAL NUMBER, and participant number agreement lies in the fact that pluractionality tracks a multiple action of the verb, be it because the action is performed several times or because it is performed once on multiple entities (Corbett 2000: ch.8). Therefore, in a way pluractionality does focus on the internal arguments of either intransitive or transitive verbs. This is what happens in Xokleng as seen again in (253–254). Since in (254c) there are several separate single actions, rather than event plurality, no pluractional form is used.

(253) *Intransitive pluractional*

a. tã wũ tẽ mũ
3SG 3.NOM go.SG ACT
'He went.'
(Urban 1985: 176)

b. ɔŋ wũ mũ mũ.
3PL 3.NOM go.PL ACT
'They went.'
(Urban 1985: 176)

(254) *Transitive pluractional*

a. tã wũ ti pɛnũ mũ
3SG 3.NOM 3SG shoot.SG ACT
'He shot him.'
(Urban 1985: 176)

b. tã wũ mẽ ɔŋ pin mũ
3SG 3.NOM 3PL shoot.PL ACT
'He shot them.'
(Urban 1985: 176)

c. ɔŋ wũ ti pɛnũ mũ
3PL 3.NOM 3SG shoot.SG ACT
'They shot him.'
(Urban 1985: 176)

Let us examine similarly behavioured verbs in other Jê languages. In Mẽbêngôkre (Northern Jê) the verb for 'to go' is *tẽ* for a single action, with *mõ* being the pluractional suppletive form (255). When the pluractional form is used with a singular argument, as in (255b), the meaning becomes an intensified event of 'running' but remains 'to go' when used with a plural argument (255c).

(255) *Intransitive pluractional*

a. Angrô nê mã tẽ.
peccary NFUT away go.SH
'The peccary went away.' (el)

b. Angrô nê mã mõ.
peccary NFUT away go.PLAC.SH
'The peccary ran away.' (el)

c. Angrô kumrẽtx nê mã mõ.
peccary many NFUT away go.PLAC.SG
'Many peccaries went away.' (el)

In Panará, verb pairs *pĩri* 'single kill' and *pari* 'pluractional kill' can show that the distinction is not about agreement in number. When the action of killing is performed by a singular entity upon another singular entity multiple times, the suppletive pluractional form *pari* is used. In the metaphorical expression 'to kill a river,' meaning to repeatedly hit a vine[15] that gives off a toxic fluid that stuns fish, the action of 'killing' the river can be performed by one person on a single river, triggering pluractionality because of the multiple occurrence of the event (256).

(256) Rê= ∅= ho= ∅= pari Peixoto inkô. Sinpe
1SG.ERG 3SG.ABS INS 3SG.ABS kill.PLAC Peixoto water true
rê= ∅= ho= ∅= pari.
1SG.ERG 3SG.ABS INS 3SG.ABS kill.PLAC
'We killed the Peixoto river. We really killed it.' (txt)

Given some evidence from other languages in the Jê family, I group the plurality-related suppletion of Xokleng verbs under the umbrella of pluractionality. In the case of Panará, the existence of transitive pluractionals that track the internal argument, like (256) above, and intransitive ones that equally track the single internal argument (257), when no such verbs exist that track the external transitive argument, suggests that there is such a thing as an internal argument in syntactic terms, not just as a semantic notion.

(257) a. Pârikjã jy= ∅= tẽ.
fruit INTR 3SG.ABS fall
'The fruit fell.' (el)

b. Pârikjã (inkjêti) jy= ra= jojo.
fruit (many) INTR 3PL.ABS fall.PLAC
'A lot of fruit fell.' (el)

While the superficially ergative pattern in which the verb tracks the internal argument is not an instance of exponence of case, pluractionality does provide evidence for the constituency of the verb phrase by setting absolutive noun phrases apart from ergative noun phrases.

15. Tropical species of the *Apocynaceae* family.

Correlates of case

One of the shared characteristics of all Jê languages, including Panará, is the fact that ergative case is consistently marked with more morphological material than other cases, at least its competitor absolutive case, which is never marked. The various correlates of ergative case in Jê languages are quite diverse. Ergative case has different morphological exponents across the family, and the positioning of the ergative noun phrase in the clause is also subject to certain restrictions. This is listed in (258).

(258) *Correlates of Jê ergative case*

a. Dedicated ergative pronoun

b. Ergative-marking morpheme

c. Case positions in the clause

d. Accusative/ergative case-marking split

These patterns, summarized for all Jê languages in table 3.24, are each individually attested in at least one of the ten languages in the family.

	Pronoun	Morpheme	Clause order	Case split
Kaingang	✗	✓	✓	✓
Xokleng	✗	✓	✓	✓
Xavante	✓	✓	✓	✓
Xerente	✓	✓	✓	✓
Mẽbêngôkre	✓	✗	✓	✓
Apinayẽ	✓	✗	✓	✓
Kĩsêdjê	✗	(✗)	✓	✓
Tapayuna	✗	(✗)	✓	✓
Timbira	✗	✓	✓	✓
Panará	✗	✓	✗	✗

Table 3.24: Correlates of ergative case in Jê languages.

As discussed in §3.4, Panará is the only Jê language that marks all noun phrases for ergative case uniformly, regardless of clause type and verb form. It is also the only language in which argument noun phrases are not positioned in the clause according to their case. Whereas in the rest of the family the immediately preverbal position is shared by absolutive or accusative lexical noun phrases and the absolutive or accusative pronouns, the distribution of

lexical and pronominal noun phrases in the clause does not follow from their case marking.

Ergative case morphology presents an interesting distribution. From a diachronic perspective, the availability of an autonomous ergative-marking morpheme is extremely widespread. Two languages that stand out particularly are Mẽbêngôkre and Apinayé. Both languages have dedicated ergative pronominal paradigms and lack an ergative morpheme that marks lexical noun phrases for case. This contrasts with the general pattern of marking every ergative noun phrase with an ergative morpheme, observed in the Southern, Central and Northern branches.

Finally, as seen earlier in this section, Panará is an atypical Jê language in that clauses have much less rigidity. Not only is the verb not restricted to a clause-final position, but case-marked noun phrases are also not bound to clausal positions tied to a specific case.

CHAPTER 4

Oblique participants and adjuncts

Introduction

The previous chapters of this dissertation have presented a description of general aspects of the grammar of Panará (ch. 2) and a detailed examination of the different methods of exponence of direct cases in Jê languages more generally and in Panará in particular (ch. 3). This chapter complements the previous one with a description of the oblique cases in Panará, with a special focus on the morphology of oblique participant cross-reference in the Panará verb complex. This is one of the mechanisms that underlies the polysynthetic nature of the Panará clause, namely polypersonalism in the verb complex.

Panará verbs include a series of clitics that agree with both ergative and absolutive arguments (§3.4), so that in transitive clauses both core participants are cross-referenced in the verb complex. Besides that, and unique in the Jê family, Panará verbs also present cross-reference of oblique participants. Since this feature is absent in the other nine Jê languages, the comparative component present in the last chapter, for the exponence of core cases, will be absent in this one.

I begin this chapter with an account of Panará dative case, its exponence on noun phrases and its agreement with cross-reference morphology on the verb. Next, I introduce the oblique cases linked to the various Panará postpositions, and finally I describe the phenomenon of postposition-doubling.

The presence of bound morphology that reflects oblique participants on the verb is one of the phenomena that contribute to the polysynthetic character of the verb complex in Panará (§2.4). As such, unlike the exponence of case discussed in the previous chapter, the exponence of PPs on the predicate head is a uniquely Panará trait within the Jê family that has no counterpart in classic Jê languages. In this chapter I do not yet present a derivational account of this class of participants, which is discussed extensively in chapter 6.

4.1 Dative

Besides the absolutive and ergative cases that I have described in the previous chapter (§3.4), Panará also has a dative case and a series of oblique cases. Dative participants present certain differences in their morphosyntactic behaviour with respect to the oblique cases that will be presented in the rest of this section. As such, I will first present a description of dative case before moving on to a description of Panará postpositions (§4.2).

The dative participant holds a semantic role of recipient or beneficiary. Dative is marked with a morpheme *mã* that appears immediately following the dative constituent (259).

(259) Pôka hẽ ti= mã= ∅= sõri Akââ mã issê.
Pôka ERG 3SG.ERG 3SG.DAT 3SG.ABS have Akââ DAT bow
'Pôka gave a bow to Akââ.' (el)

The dative marker presents some fused allomorphy with nominal number suffixes. While both pronouns and lexical noun phrases are marked for dative with dative *mã*, nominals bearing the dual *ra* or plural *mẽra* number suffixes present a dative allomorph of these suffixes instead of being marked with dative *mã*. These allomorphs are respectively *rân* for [DU, DAT] and *mẽrân* for [PL, DAT]. The sentences in (260) illustrate this.

(260) a. Kjêpyti hẽ ti= kãn= mẽ= ∅= sõri ka-rân.
Kjêpyti ERG 3SG.ERG 2DAT DU 3SG.ABS give 2SG-DU.DAT
'Kjêpyti gave it to the two of us.' (el)

b. Ka-mẽrân ka= ∅= rê= kãn= ∅= sũũ.
2SG-PL.DAT IRR SPK 2PL 2DAT 3SG.ABS say
'I said this to you guys.' (txt)

The dative case-marked allomorphs of the Panará number suffixes are the same as their ergative case-marked allomorphs (§3.4.1). That is, absolutive

nominals present the {ra/mẽra} number suffixes, and ergative and dative nominals present the {rân/mẽrân} number suffixes, as presented in table 4.1.

	Singular	Dual	Plural
Absolutive	∅	-ra	-mẽra
Ergative/Dative	∅	-rân	-mẽrân

Table 4.1: Panará number suffixes.

4.1.1 Dative cross-reference

As for cross-reference of dative participants, in Panará there is a dedicated paradigm of dative clitics. Next to the absolutive (or unmarked) and the ergative clitics discussed in chapter 3, the dative is the third and last paradigm of participant cross-reference. The following sentences (261–263) illustrate the full paradigm.

(261) a. *First person dative, singular*

Mãra hẽ ti= kjẽ= ∅= sõri inkjẽ mã.
3sg erg 3sg.erg 1sg.dat 3sg.abs have 1sg dat
'He gave it to me.' (el)

b. *Second person dative, singular*

Mãra hẽ ti= kãn= ∅= sõri ka mã.
3sg erg 3sg.erg 2.dat 3sg.abs have 2sg dat
'He gave it to you.' (el)

c. *Third person dative, singular*

Mãra hẽ ti= mã= ∅= sõri sipjâ mã.
3sg erg 3sg.erg 3sg.dat 3sg.abs have wife dat
'He gave it to his wife.' (el)

(262) a. *First person dative, dual*

Kjêpyti hẽ ti= kjẽ= mẽ= ∅= sõri inkjẽ-rân.
Kjêpyti erg 3sg.erg 1sg.dat du 3sg.abs have 1sg-du.dat
'Kjêpyti gave it to the two of us.' (el)

b. *Second person dative, dual*

Kjêpyti hẽ ti= kãn= mẽ= ∅= sõri ka-rân.
Kjêpyti ERG 3SG.ERG 2.DAT DU 3SG.ABS have 2SG-DU.DAT
'Kjêpyti gave it to the two of you.' (el)

c. *Third person dative, dual*

Kjêpyti hẽ ti= mẽ= mẽ= ∅= sõri mãra-rân.
Kjêpyti ERG 3SG.ERG 3DU.DAT DU 3SG.ABS have 2SG-DU.DAT
'Kjêpyti gave it to the two of them.' (el)

(263) a. *First person dative, plural*

Mãra hẽ ti= pan= ∅= sõri inkjẽ-mẽrân.
3SG ERG 3SG.ERG 1PL.DAT 3SG.ABS have 1SG-PL.DAT
'He gave it to us.' (el)

b. *Second person dative, plural*

Kjêpyti hẽ ti= rê= kãn= ∅= sõri ka-mẽrân.
Kjêpyti ERG 3SG.ERG 2PL 2.DAT 3SG.ABS have 2SG-PL.DAT
'Kjêpyti gave it to you guys.' (el)

c. *Third person dative, plural*

Inkjẽ hẽ rê= ran= ∅= sõri mãra-mẽrân.
1SG ERG 1SG.ERG 3PL.DAT 3SG.ABS have 3SG-PL.DAT
'I gave it to them.' (el)

Perhaps the first thing that one notices about singular dative clitics is their phonological similarity with the forms of strong pronouns, which are *inkjẽ* [1SG], *ka* [2SG] and *mãra* [3SG]. Just like in the absolutive and ergative clitics, second person does not expone number in the same clitic that expones person and case. Next to a stable *kãn* that corresponds to [2DAT], there is an independent *rê* for [2PL].

In plural dative clitics, besides the always discontinuous second person, first and third person dative have a fused plural allomorph. The singular dative forms are also the dual dative clitics, where dual number is independently exponed with the familiar autonomous *mẽ* [DU] clitic (3.4.2.3). The exception is in the third person, where instead of the sequence that we could expect to be *mã mẽ* what we find is *mẽ mẽ*. To all evidence, this is a case of phonologically-conditioned suppletive allomorphy, although in this case the process does not

avoid identical syllables but instead generates them, unlike similar interactions between clitics, such as in Bosnian-Croatian-Serbian.[1]

The complete paradigm of dative clitics is presented in table 4.2.

	Singular	Dual	Plural
1	kjẽ	kjẽ mẽ	pan
2	kãn	kãn mẽ	rê … kãn
3	mã	mẽ mẽ	ran

Table 4.2: Panará dative clitics.

The placement of iterative/directional clitics once again allows us to pinpoint the location of dative clitics inside the verb complex.

(264) Pôka hẽ ti= py= kjẽ= ∅= sõri issê.
Pôka erg 3sg.erg iter 1sg.dat 3sg.abs give bow
'Pôka gave me a bow again.' (el)

As can be seen in (264), iterative *py* occurs between the ergative and the dative clitics. The sentences in (261) also show that the dative clitic is located to the left of the dual *mẽ* clitic. This allows us to update the map of the verb complex with the inclusion of a dative slot:

(265) | mood | erg | 2num | iter | **dat** | du | abs | verb |

As I have pointed out earlier in chapter 2 (§2.4), Panará clauses have a tendency towards null anaphora. It is worth noting that this is the reason why the example sentences used earlier in this section to illustrate dative cross-reference are elicited and not obtained from naturalistic speech. As is also the case with absolutive and ergative nominals, once a dative participant has been introduced, or when it is otherwise salient in the discourse, the dative noun phrase is elided and its person and number features are recovered exclusively through the pronominal clitic or clitics that agree with the dative.

1. In Bosnian-Croatian-Serbian (Slavic), third person feminine accusative pronominal clitic *je* becomes *ju* when juxtaposed to third person auxiliary *je*:

(i) a. Milan će **je** vidjeti.
Milan fut 3sg.f.acc see
'Milan will see her.'

b. Milan {***je**/ **ju**} je vidio.
Milan 3sg.f.acc 3sg.aux saw
'Milan saw her.'
(Aida Salčić, p.c., 04/2018)

The sentence in (266), with an ellided *ka mã* 'to you' noun phrase, illustrates this point.

(266) Ja rê= kan= ∅= sũũ, Kuupêri.
this 1SG.ERG 2.DAT 3SG.ABS say Kuupêri
'I have said this to you, Kuupêri.' (txt)

Besides the dedicated dative clitic paradigm, dative participants can also be cross-referenced with the absolutive paradigm seen in the previous chapter (§3.4.2.2). When that is the case, the result is that we see two absolutive clitics (267).

(267) Saankôra jy= ∅= ho= ra= ∅= pôô tepi ho
Saankôra INTR 3SG.ABS INS 1SG.ABS(DAT) 3SG.ABS arrive fish INS
inkjẽ mã .
1SG DAT
'Saankôra brought me some fish.' (el)

Dourado (2001: 105) put forward the first description of Panará morphosyntax, according to which dative and absolutive participants compete for one clitic slot that is systematically awarded to the clitic associated with the dative participant. Ever since, there has been the belief that dative participants outrank absolutives in some capacity (Dourado & Gildea 2008). However, the examples provided to support this interpretation do not include an event participant absolutive noun phrase, meaning that the absolutive clitic that corresponds to it is phonologically null [3SG.ABS] /∅/, as in (268).

(268) Toopatũ hẽ ti= ra= [∅=] sõri
old.man ERG 3SG.ERG 1SG.ABS [3SG.ABS] give
kjãranpe inkjẽ mã.
feather.crown 2SG DAT
'The old man gave me a feather crown.'
(Dourado 2001: 106)

There is no evidence that supports a strong interpretation of the absolutive-dative clash as proposed by Dourado (2001: 105). However, there is a complex interaction between the absolutive's and the dative's clitics that is sensitive to event participant features rather than case features. I describe this restriction in the next section.

4.1.2 Person-Case constraint

It has been observed in multiple languages that there can be a restriction on the possible combinations of person and case in pronominal clitics and agreement affixes. This restriction is known as the Person-Case Constraint (PCC), and is well documented in Romance (Bonet 1991, 2008), Germanic (Anagnastopoulou 2008), Basque (Arregi & Nevins 2007) or Kiowa (Adger & Harbour 2007), among other languages and families, including Amazonian languages such as Yanomama (Ferreira 2017: 371).

In Panará, the co-occurrence of first and second person features in the sequence of dative-absolutive clitics is illicit (269). This is a version of the PCC that typically restricts the co-occurrence of first and second person features in cross-reference morphology (Nevins 2007).

(269) a. *Kuupêri hẽ ti= kân= ra= sõri inkjẽ ka mã.
Kuupêri ERG 3SG.ERG 2SG.DAT 1SG.ABS give 1SG 2SG DAT
'Kuupêri gave me to you.' (el)

b. *Saankôra hẽ ka= ti= kjẽ= a= sõri ka inkjẽ mã
Saankôra ERG IRR 3SG.ERG 1SG.DAT 2SG.ABS give 2SG 1SG DAT
'Saankôra will give you to me.' (el)

Ungrammaticality emerges exclusively as a result of a combination of first and second person dative and absolutive clitics. As long as either the dative or the absolutive participants are third person (and also if both are third person), the combination is grammatical (270).

(270) a. *3DAT–2ABS*
Inkjẽ hẽ ka= mã= a= pĩri ka inkjẽ sipjâ mã.
1SG ERG IRR 3SG.DAT 2SG.ABS kill 2SG 1SG wife DAT
'I will kill you for my wife.' (el)

b. *1DAT–3ABS*
Ka hẽ ka= kjẽ= ∅= sõri kôôtita inkjẽ mã
2SG ERG 2SG.ERG 1SG.DAT 3SG.ABS give chicken 1SG DAT
'You gave me a chicken.' (el)

While absolutive clitics are obligatory in Panará, the omission of dative clitics does not result in ungrammaticality. In first/second contexts like (269), the omission of the dative clitic repairs the clause, which is then grammatical (271).

(271) a. Kuupêri hẽ ti= ra= sõri inkjẽ ka mã.
Kuupêri ERG 3SG.ERG 1SG.ABS give 1SG 2SG DAT
'Kuupêri gave me to you.' (el)

b. Saankôra hẽ ka= ti= a= sõri ka inkjẽ mã.
Saankôra ERG IRR 3SG.ERG 2SG.ABS give 2SG 1SG DAT
'Saankôra will give me to you.' (el)

The PCC effects in Panará as presented above can be stated as the following condition:

(272) In Panará, either the absolutive clitic or the dative clitic must be 3rd person

As opposed to some well documented instances of PCC effects, such as Basque (Nevins 2011; Preminger to appear), the PPC in Panará is symmetric. In Basque, the PCC restricts the person features on the direct object but not on the indirect object, and as such the PCC only applies to the direct object clitic (273a, 274a). In Panará the PCC applies symmetrically, there is a restriction on the person features of both the absolutive argument or the dative argument (273b, 274b).

(273) a. *Basque*
Zuk niri liburu-a saldu d- i -∅
you.ERG me.DAT book-ART$_{SG}$(ABS) sell 3.ABS- √ -SG.ABS
-da -zu.
-1SG.DAT -2SG.ERG
'You have sold the book to me.'
(Preminger to appear: 3)

b. *Panará*
Ka hẽ ka kjẽ ∅= sõri kôôtita inkjẽ mã
2SG ERG 2SG.ERG 1SG.DAT 3SG.ABS give chicken 1SG DAT
'You gave me a chicken.' (el)

(274) a. *Basque*
*Zuk harakin-ari ni saldu n- (a)i -∅
you.ERG butcher-ART$_{SG}$.DAT me(ABS) sell 1.ABS- √ -SG.ABS
-o -zu.
-3SG.DAT -2SG.ERG
'You have sold me to the butcher.'
(Preminger to appear: 3)

b. *Panará*
Inkjẽ hẽ ka= mã= a= sõri ka mãra mã.
1SG ERG IRR 3SG.DAT 2SG.ABS give 2SG 3SG DAT
'I will give you to him.' (el)

The incompatibility of speech-act participant features in the absolutive and dative clitics suggests that the dative participant interacts with the verbal agreement morphology in a different way than participants introduced by postpositions do (4.2.1). This is also supported by the fact that ergative and dative share the characteristic of having a dedicated clitic paradigm, as opposed to the way in which postpositional obliques are cross-refereneced (§4.2.3). The view that dative is not an adposition but a case is supported by its interaction with nominal number morphology, resolved with a case-marked number suffix like in ergative case, as seen earlier in (260). In chapter 6 I discuss various angles from which the Panará PCC can be explained in a derivational approach.

4.1.3 Dative participants

A dative noun phrase is an additional grammatical participant in a clause. In fact, the referent of the dative participant can coincide with the referent of one of the core arguments (275).

(275) Rê= kjẽ= ∅= sari inkjẽ mã akwyti
1SG.ERG 1SG.DAT 3SG.ABS wrap 1SG DAT tortoise
'I prepared tortoise for myself.' (txt)

However, unlike the ergative or absolutive constituents, the dative is only required by a small class of verbs. In Panará it is always possible to append additional participants to a clause, by means of dative participants or by means of postpositional oblique cases (§4.2), but in only a few ditransitive verbs is the dative participant obligatory, or implied when omitted syntactically—making it an argument in ditransitive verbs. What this means is that in Panará there are intransitive and monotransitive verbs, and also ditransitive verbs.

The actions that are usually designated by ditransitive verbs in languages like English or Portuguese, with three arguments required by the verb (roughly an agent, a theme and a recipient) are either intransitive or monotransitive verbs in most equivalents in Panará, with additional participants added where needed.

Let us see some examples of actions that one could expect to be denoted by ditransitive verbs, and how they are expressed in Panará. A classic ditransitive verb is English *to give*, in (276), and its equivalents in other European languages, like Dutch (279), Afrikaans (280), Spanish (277) or ancient Greek (278).

(276) *English dative*
This neglected work gave me great pleasure.
(Hemming 1970: 14)

(277) *Spanish dative*
Nos dieron muchas vituallas que se llama millo
1PL.DAT give.PST many foods that REFL call corn
é harina de mandioca.
and flour of manioc
'They gave us much food called corn and manioc flour.'
(García 1526: 35)

(278) *Ancient Greek dative*
tḕn khṓran toîs perioikoûsi Boiōtoîs
the.ACC space.ACC the.DAT.PL around.dwellers.DAT Boiotians.DAT
édōke
give.3SG.AOR
'He gave the territory to the neighbouring Boiotians.'
(Radt 1948: 263)

(279) *Dutch dative*
De Maori's gav-en de varken-s aan Tasman.
the.PL Maori-PL give.PST-PL the.PL pig-PL on Tasman
'The Maoris gave the pigs to Tasman.'
(Zwart 2011: 20)

(280) *Afrikaans dative*
Marie gee haar boeke aan Jan.
Marie gives her books to Jan
'Marie is giving her books to Jan.'
(Pretorius 2017: 11)

In Panará, the equivalent of *to give* is already seen in some examples above. It corresponds to *sõri*, with a dative participant for the recipient of the action denoted by the verb (281).

(281) Rê= mã= ∅= sõri sõkrepakoko mã jâã.
1SG.ERG 3SG.DAT 3SG.ABS give r.m.guan DAT fire.drill
'They gave the rusty-margined guan[2] the fire drill.' (txt)

Panará *sõri* appears to always retain the meaning of giving, even in absence of both a dative DP and dative morphology in the verb complex. In such cases (282) the sentence still denotes an event with a recipient participant, interpreted as an impersonal one.

(282) Inkjẽ hẽ rê= ∅= sõri tepi.
1SG ERG 1SG.ERG 3SG.ABS give fish
'I gave fish away.' (el)
(Informant: *"You have fish and you gave it to someone."*)

For another two-place transitive verb in English, 'to name,' in Panará we find the verbal version of the root *issi*, which as a noun means 'name.' In the sentence in (283) we see *issi* as a transitive verb with a beneficiary dative. Again, this verb seems to be inherently ditransitive.

(283) Inkjoo, rê= mã= ∅= issi pjoo.
NEG 1SG.ERG 3SG.DAT 3SG.ABS name NEG
'No, I didn't name him.' (obs)

It is possible that Panará has no syntactic ditransitive arguments and that dative arguments are always an incorporated participant, even in notionally ditransitive verbs like *sõri* 'to give' and *issi* 'to name.' A similar situation is also the case with some intransitive verbs, like movement verbs such as *pôô* 'to arrive,' *kwy* 'to go' or *tẽ* 'to run/travel.' The actions depicted by these verbs have an implied source, goal or path, elements that can be referred to syntactically with a participant by means of the corresponding postpositions (*pêê* ablative, *tã* allative, *kõõ* perlative). However, there is no evidence that these participants, arguably present in a notional sense, are part of the valence of displacement verbs.

2. *Penelope superciliaris*, a bird in the Cracidae family common in eastern Amazonia.

4.2 Postpositions

In Panará there are a series of oblique participants that are marked by means of different postpositions. Postpositions appear as the head of a postposition phrase (PP), which consists of a noun phrase (284) or a clause (285) followed by a postposition.

(284) a. [NP, P]$_{PP}$

b. Rê= s= apôpô torinsi [kô ho].
1PL.ERG 3SG.ABS pierce giant.armadillo stick INS
'We stabbed the giant armadillo[3] with sticks.' (txt)

(285) a. [clause, P]$_{PP}$

b. Jy= ra= tẽ [atõ rê= ∅= pyri ahê].
INTR 1SG.ABS travel gun 1SG.ERG 3SG.ABS take FIN
'I went there to buy a shotgun.' (el)

Unlike ergative and dative participants, which are case-marked with a dedicated case morpheme (*hẽ* for [ERG], *mã* for [DAT]) that fuses with nominal number morphology (286, 287), postpositions take a whole noun phrase as their object and do not show number morphology (288).

(286) *Plural + ergative*
Inkjẽ-mẽrân nẽ= ∅= kuri swasĩrãkrâ.
1SG-PL.ERG 1PL.ERG 3SG.ABS eat peccary-thigh
'We ate peccary thigh.' (txt)

(287) *Plural + dative*
Swankja tân kiãrasâ hẽ ti= ran= sõri sâti
ancient ESS agouti ERG 3SG.ERG ABS have peanut
swankjara-mẽrân.
ancient-PL.DAT
'A long time ago, the agouti gave peanuts to the ancients.' (txt)

(288) *Plural + comitative P*
Japjara jy= ra= tĩri, inkjẽ-mẽra [nãpjâ-mẽra kõõ].
PAU INTR 1PL.ABS live 1SG-PL mother-PL COM
'A few of us survived, us with our mothers.' (txt)

3. *Priodontes maximus*, the largest extant species of armadillo.

The different postpositions in Panará are presented individually in chapter 2 (§2.2.2.2). The remainder of the present section discusses the morphosyntactic properties of Panará PPs.

As is apparent in the examples presented in this section, all Panará postpositions are transitive and introduce participants in the clause. There are however certain semantic and morphosyntactic differences between the different oblique cases, having to do with the exponence of particular postpositions both in the PP and inside the verb complex. This is the phenomenon that I address in the following section.

4.2.1 Postposition doubling

In the examples provided in §2.2.2.2 to illustrate the different oblique cases in Panará, the most noticeable element is perhaps the variable location of postpositions inside the clause. As noted earlier, the canonical position of a postposition is as the head of a PP, that is, to the right of the postposition's object (P-object). However, a degree of variation and interaction exists between the PP head position and a clitic position within the preverbal morphology that constitutes the Panará verb complex. In this section I present the four configurations that are available to oblique participants in Panará. The systematicity of these configurations will be approached in the next section.

As already mentioned, all postpositions can appear in a position heading the PP (289). This configuration is available to all Panará postpositions.

(289) [$_{\text{clause}}$ V [$_{\text{PP}}$ XP P]]

Kwakriti jy= ∅= ty [inkjẽ pêê].
spider-monkey INTR 3SG.ABS die 1SG MAL
'My spider-monkey died.' (el)

A second configuration is that in which a postposition appears normally heading a PP, while the P-object is cross-referenced with a clitic in the verb complex (290).

(290) [$_{\text{clause}}$ cl=V [$_{\text{PP}}$ XP P]]

Kwakriti jy= ra= ∅= ty [inkjẽ pêê].
spider-monkey INTR 1SG.ABS 3SG.ABS die 1SG MAL
'My spider-monkey died.' (el)

The clitic that doubles the P-object corresponds to the absolutive paradigm (§3.4.2.2) and matches the P-object in person and number features. If the P-object is a clause, it can be assumed that the corresponding clitic is third person singular absolutive ∅.

The third configuration is a variation on the previous one. As can be seen in (291), the malefactive morpheme *pêê* can appear doubled inside the verb complex, following the P-object's clitic, as well as in situ inside the PP.

(291) [$_{\text{clause}}$ cl=P=V [$_{\text{PP}}$ XP P]]

Kwakriti jy= ra= pêê= ∅= ty [inkjẽ pêê].
spider-monkey INTR 1SG.ABS MAL 3SG.ABS die 1SG MAL
'My spider-monkey died.' (el)

The fourth and last configuration is similar to the previous one in that both the postposition and the P-object are doubled inside the verb complex. However, the postposition is absent from the PP, leaving the P-object in a certain way stranded by itself (292).

(292) [$_{\text{clause}}$ cl=P=V [$_{\text{PP}}$ XP _]]

Kwakriti jy= ra= pêê= ∅= ty [inkjẽ ___].
spider-monkey INTR 1SG.ABS MAL 3SG.ABS die 1SG ~~MAL~~
'My spider-monkey died.' (el)

The four possible configurations for postpositional oblique participants are listed below:

(293) *The P-doubling continuum*

a. P in situ
[$_{\text{clause}}$ V [$_{\text{PP}}$ XP P]]

b. P in situ + absolutive clitic
[$_{\text{clause}}$ cl=V [$_{\text{PP}}$ XP P]]

c. P in situ + absolutive clitic + doubled P
[$_{\text{clause}}$ cl=P=V [$_{\text{PP}}$ XP P]]

d. P-object stranded + absolutive clitic + doubled P
[$_{\text{clause}}$ cl=P=V [$_{\text{PP}}$ XP _]]

As we will see later in this chapter (§4.2.3), the postposition-doubling (P-doubling) continuum is not available to all Panará obliques. However, before going into that I will mention what is not possible for oblique participants. Based on the lack of occurrence in a corpus of naturalistic speech and a solid lack of acceptability elicited from multiple Panará informants, there is one logically possible construction that is ungrammatical: doubling of the postposition without clitic-doubling of the P-object (294).

(294) *[$_{\text{clause}}$ =P=V [$_{\text{PP}}$ XP P]]

*Kwakriti jy= __= pêê= ∅= ty [inkjẽ pêê].
spider-monkey INTR MAL 3SG.ABS die 1SG MAL
'My spider-monkey died.' (el)

The sentence in (294) would only be grammatical if the [1SG.ABS] clitic *ra* appeared in the position immediately preceding the P-clitic *pêê*. Otherwise, the combination of clitics in the verb complex in this sentence corresponds to a third person malefactive participant, with a [3SG.ABS] clitic ∅ doubling the malefactive P-object, as in (295).

(295) Kwakriti$_{i}$ jy= ∅$_{j}$= pêê= ∅$_{i}$= ty [mãra$_{j}$ pêê].
spider-monkey INTR 3SG.ABS MAL 3SG.ABS die 3SG MAL
'His/her spider-monkey died.' (el)

Naturally, the question arises as to what the conditions are for the different P-doubling configurations in Panará.

4.2.2 P-doubling does not promote

So far in this chapter I have hinted at certain asymmetries in the morphosyntactic behaviour of oblique participants and postpositions. Before discussing in detail their morphosyntactic variability, I want to present some evidence supporting the notion that the constructions in Panará that I have been calling P-doubling are not applicatives, in the valence-increasing sense of the term. I will adopt Peterson's (2006) definition of an applicative:

> "Applicative constructions are a means some languages have for structuring clauses which allow the coding of a thematically peripheral argument or adjunct as a core-object argument. Such constructions are signalled by overt verbal morphology" (Peterson 2006: 1).

Panará P-objects are not APPLICATIVE OBJECTS, understood as a peripheral participant that acquires the properties of a core argument by means of a syntactic operation, resulting in an increase of the valence of the predicate to include the applied object. I will later argue that P-doubling is the adpositional equivalent of pronoun-doubling—that is, clitic-doubling (§6.1).

Dourado already pointed out that, as far as the evidence available is concerned, what she calls Panará applicatives "do not increase valence […] The applicative does not add a new internal argument to the existing argument structure of the verb" (Dourado 2004: 28). Indeed, there is no valence modification involved in the phenomenon of P-doubling in Panará. As seen in (296), the comitative participant *kamẽra* 'you$_{PL}$' does not alter the valence of the intransitive monovalent predicate.

(296) Inkjẽ jy= rê= a= kõõ= ra= kwy ka-mẽra.
1SG INTR 2PL 2ABS COM 1SG.ABS go 2SG-PL
'I will go with you guys.' (el)

In the sentence above, the verb *kwy* 'to go' remains a monovalent intransitive verb with one absolutive argument. There is no evidence whatsoever that *inkjẽ* 'I' is here an external argument and the verb is transitive. If that was the case, one would expect to not see the intransitive realis clitic *jy* and, on the other hand, morphological exponence of ergative case would be expected either on the noun phrase or its clitic associate. None of that is observed.

However, Panará does present a true valence-increasing operation: the transitivizer *ho*, a morpheme plausibly related to the instrumental-comitative postposition *ho* (§2.2.2.2.10). Transitivizer *ho* does everything that we expect from a bona fide transitivizing operation, as can be seen in the pair of sentences in (297).

(297) a. Ka jy= a= jõti.
2SG INTR 2SG.ABS sleep
'You sleep.' (el)

b. Ka hẽ ka= ho= s= õti ka jõpãã.
2SG ERG 2SG.ERG TR 3SG.ABS sleep 2SG child
'You made your child sleep.' (el)

The causative *ho* construction in (297b) presents the following differences when compared to to the stranded nouns in the constructions seen above (296): (a) neither of the two participants in the clause can occur as a PP; (b) one of the two participants acquires ergative marking; (c) the verb lacks the

intransitive realis modal clitic; (d) the clitic that cross-references the ergative participant is also ergative.

This suggests quite strongly that in (297b) *sõti* 'to sleep' is transitivized and an additional participant is promoted to core argument status, which is to say that this construction actually constitutes a valence increase and *ka jõpãã* 'your child' is an actual applied object in the sense of a promoted peripheral participant, as established at the beginning of this section, unlike the P-doubling phenomenon discussed in this chapter. Consider the sentences in (298).

(298) a. Inkjẽ sipjâ jy= ∅= ho= ∅= pôô pakwa (ho)
1SG wife INTR 3SG.ABS INS 3SG.ABS arrive banana (INS)
pyti-ra.
one-DU
'My wife brought two bananas.' (el)

b. Inkjẽ twâpjâ hẽ ti= ho= ∅= pôô kan
1SG grandmother ERG 3SG.ERG TR 3SG.ABS arrive basket
(*ho) pyti-ra.
(INS) one-DU
'My grandmother brought two baskets.' (el)

These sentences illustrate the difference between an instrumental-comitative PP *ho* with P-doubling and optional stranding of the P-object (298a) and a transitivized *pôô* with an applied object promoted to core argument (298b). As the term I have been using for this *transitivizer* morpheme suggests, applicative *ho* is compatible with originally intransitive verbs, which then acquire the properties of transitive verbs. However, *ho* is incompatible with transitive verbs, as I discribe and discuss in a later chapter (§5.1.4).

Nothing in the morphosyntax of Panará P-doubling leads to the consideration that the stranded P-object or its clitic-doubling in the verb complex are symptoms of a valence-increasing applicative construction. In all evidence, stranded P-objects of Panará adpositions do not acquire core argument properties, either by demoting a core argument or by promoting it. Instead, it appears that the phenomenon is a lot more superficial than that.

4.2.3 License to double

So far I have described four possible configurations in which a postposition and the doubled counterparts of the postposition and its object present a different placement inside the clause. This was exemplified with a malefactive

PP in (289-292). I had however already warned the reader that this picture does not generalize to all postpositions. We are finally about to see in what ways there is variation.

The postposition-doubling phenomenon was first brought up by Dourado (2004). The main puzzle is the fact that not all postpositions present the same behaviour. While a malefactive PP can P-double, as exemplified in (299), an allative PP cannot (300).

(299) *P-doubling* ✓
Jy= ra= pêê= a= ty.
INTR 1SG.ABS MAL 2SG.ABS die
"You died on me."

(300) *P-doubling* ✗
*Jy= tã= ra= kwy inkô tã.
INTR ALL 1SG.ABS go water ALL
"I'm going to the river."

Some of the postpositions presented earlier in §2.2.2.2 can present the four configurations of the P-doubling continuum, while some of them can only appear in the first configuration—static PPs with the postposition in the head position, with no P-doubling possible.

This picture is further complicated by the different behaviour of homophonous pairs of postpositions, such as malefactive *pêê* and ablative *pêê*. While malefactive semantics licences P-doubling, as already seen and repeated here (301), the ablative cannot P-double, as the sentences in (302) illustrate.

(301) a. Jy= a= ty inkjẽ pêê.
INTR 2SG.ABS die 1SG MAL
'You died on me.' (el)

b. Jy= ra= pêê= a= ty.
INTR 1SG.ABS MAL 2SG.ABS die
'You died on me.' (el)

(302) a. Sâkjo jy= ∅= pôô aty pêê.
Sâkjo INTR 3SG.ABS arrive forest ABL
'Sâkjo arrived from the forest.' (el)

b. *Sâkjo jy= ∅= pêê= ∅= pôô aty pêê.
Sâkjo INTR 3SG.ABS ABL 3SG.ABS arrive forest ABL
'Sâkjo arrived from the forest.' (el)

It could be imagined that the relevant property that triggers the two readings of *pêê*, the ablative and the malefactive, is the animacy of the oblique participant. However, ablatives with an animate participant are still not licensed for P-doubling in the verb complex and are instead static PPs, as seen in (303a), while a similar malefactive is in effect P-doubled (303b).

(303) a. Perankô pêê jy= (*∅= *pêê=) ra= pôô.
Perankô ABL INTR= 3SG.ABS ABL 1SG.ABS arrive
'I arrived from Perankô.' (el)

b. Pukjora jy= py= ra= pêê= ∅= too inkjẽ pêê.
Pukjora INTR ITER 1SG.ABS MAL 3SG.ABS leave 1SG MAL
'Pukjora left against me.' (el)

Dourado (2004) presents a clean division between the postpositions that tolerate "incorporation" and those that do not, reproduced in table 4.3. Dourado also mentions the difficulty of establishing which version of the homophonous postpositions is in play in cases of inessive/locative and instrumental-comitive/instrumental PPs, and admits to a certain arbitrariness of this split. A further problem with this approach is that it cannot address the connection between the homophones that incorporate and those that do not.

	Incorporation	No incorporation
mã	dative/benefactive	-
pêê	malefactive	ablative
kõ	comitative	locative (water)
(r)amã	inessive	locative
ho	instrumental-comitative	instrumental

Table 4.3: Postpositions in (Dourado 2004), with updated spelling.

In what follows I present an actualized inventory of some Panará postpositional cases according to whether they are licensed to P-double in the verb complex or whether they are static.

Doubling postpositions

(304) *Comitative*
Ka ka= ti= ra= kõõ= a= kwy tepi suu inkjẽ kõõ.
2SG IRR NSPK 1SG COM ADRE go fish PURP 1SG COM
'You'll go fishing with me.' (obs)

(305) *Comitative-locative*
Ka= ∅= tân= ∅= kuri kjãpo Mĩkre tân.
2SG.ERG 3SG.ABS COM 3SG.ABS eat manioc.bread Mĩkre COM
'You're eating fish with Mĩkre.' (el)

(306) *Instrumental-comitative*
Japjâra rê= ∅= ho= ∅= pari po
PAU 1PL.ERG 3SG.ABS INS 3SG.ABS kill.PLAC straight.arrowhead
ho.
INS
'Us few hunted with the straight arrowheads.' (txt)

(307) *Malefactive*
Kânko jy= ra= pêê ∅= kwy.
Kânko INTR 1SG.ABS MAL 3SG.ABS go
'Kânko left without my permission.' (el)

(308) *Perlative*
Rê= ∅= kõ= ∅= kre torinsi kõ.
1PL.ERG 3SG.ABS PER 3SG.ABS hole giant.armadillo PER
'We dug after the giant armadillo.' (txt)

(309) *Purposive*
Jy= ∅= suu= mẽ= ra= kwy inkô suu.
INTR 3SG.ABS PURP DU 1SG.ABS go water PURP
'The two of us are going to get water.' (obs)

Static postpositions

The following are the Panará postpositions that have been solidly attested as not licensing P-doubling. They can neither appear inside the verb complex nor strand their P-object. Certain postpositions for which a static status is not definitive to this date are excluded.

(310) *Ablative*
*Sâkjo jy= ∅= pêê= ∅= pôô aty pêê.
Sâkjo INTR 3SG.ABS ABL 3SG.ABS arrive forest ABL
'Sâkjo arrived from the forest.' (el)

(311) *Adessive*
*Swankja-rân nẽ= ∅= hã= ∅= rõwã swankja
ancient-PL.ERG 3PL.ERG 3SG.ABS ADES 3SG.ABS kill ancient
sõpârĩ hã.
witchcraft ADES
'The ancients killed an ancient one that had sorcery.'(el)

(312) *Allative*
*Jy= ∅= tã= ra= kwy inkô tã.
INTR 3SG.ABS ALL 1SG.ABS go water ALL
'I went to the river.' (el)

(313) *Inessive*
*Ka hẽ ka= ∅= amã= ∅= kuri krekjã amã kôôtita.
SG ERG 2SG.ERG 3SG.ABS INES 3SG.ABS eat dark INES chicken
'You ate chicken last night.' (el)

(314) *Locative*
*Rê= ∅= rĩ= ∅= sanpun aty rĩ kjyti.
1SG.ERG 3SG.ABS LOC 3SG.ABS see forest LOC tapir
'I saw a tapir in the forest.' (el)

Some differences exist between the patterns exhibited by oblique participants in the collection of data that I carried out during this research and the behaviour attested by Dourado (2004). For instance, the licensing of P-doubling for instrumental-comitative *ho* does not discriminate a strict instrumental semantics as opposed to a comitative interpretation (306), and neither does the difference between perlative *kõõ* and comitative *kõõ*. Dourado (2001: 222) notes that she perceived a generational difference in the availability of P-doubling.

It is well possible that the attested differences are a consequence of different stages of an ongoing shift in the grammar of Panará speakers, which could be in part attributed to the fact that some adult Panará informants with whom I have worked were either children or not yet born during Dourado's research in the late 1980s and early 1990s.

The P-doubling and static postpositions that I have been able to attest with enough certainty in my data, both by consulting a corpus of original texts or by elicitation work, are summarized in table (4.4).

P-doubling	Static
comitative *kõõ*	ablative *pêê*
comitative-locative *tân*	adessive *rahã*
instrumental-comitative *ho*	allative *tã*
malefactive *pêê*	inessive *amã*
perlative *kõõ*	locative *rĩ*
purposive *suu*	

Table 4.4: P-doubling and static postpositions.

4.3 Discussion

In this chapter I have described one of the syntactic peculiarities of Panará, namely the fact that certain postpositions can appear doubled in the verbal morphology, and their objects are clitic-doubled. I have named this phenomenon P-doubling. Panará P-doubling, like instrumental-comitative *ho* in (315), presents different properties than what is usually known as an applied object, like the valency-augmenting *ho* in (316).

(315) ∅= ho= ra= pôô, rê= ∅= sapu.
3SG.ABS INS 1PL.ABS arrive 1PL.ERG 3SG.ABS wrap
'We carried it, we wrapped it with leaves.' (txt)

(316) Mãmã pêê rê= ho= ∅= pôô, rê= ∅= rõwa.
this ABL 1PL.ERG CAUS 3SG.ABS arrive 1PL.ERG 3SG.ABS kill
'Then we made it come, we killed it.' (txt)

The fact that the doubling of postpositions in the verb complex is as superficial as the doubling of noun phrases leads me to consider P-doubling the adpositional equivalent of pronominal clitic-doubling.

Complicating matters further is the fact that P-doubling is only available to certain postpositions. There is an evident tension between a descriptive approach and an explanatory approach of the Panará P-doubling phenomenon. On the one hand, a precise statement of the oblique cases that license P-doubling provides a clear-cut description of Panará obliques which fits with a general tendency of the language to present a hierarchy of participants that can be diagnosed by the nature of polypersonalism morphology on the Panará verb (table 4.5).

	Clitic paradigm	Clitic-doubling
Absolutive	abs	Required
Ergative	erg	Required
Dative	dat/abs	Possible
Doubling PP	abs+P	Possible
Static PP	–	Not possible

Table 4.5: Panará participant cross-reference.

On the other hand, a principled explanation of homophony/polysemy of several of the postpositional cases is clearly necessary. The uncanny coincidence of the postpositions that license pairs of oblique cases like malefactive–absolutive needs to be addressed in one way or another. In chapter 6 I propose a derivational account of polypersonalism in the Panará verb complex, including the P-doubling phenomenon.

CHAPTER 5

Deriving Panará case

The present chapter is the first in the second, more theoretically-oriented half of this dissertation. In the first half, with a focus on a description of Panará morphosyntx, and Jê morphosyntax more generally, I presented some core characteristics of Panará grammar (ch. 2), with a focus on the nature of Panará case marking and the cross-reference of core arguments (ch. 3), and the morphosyntax of oblique and adjunct participants (ch. 4).

In this chapter I turn to the phenomena examined in chapter 3 and try to provide an answer grounded in generative syntactic theory. Chapter 3 showed that Panará lacks the two verb forms that are present in classic Jê languages. Since these forms determine the case marking alignment, this chapter examines the syntactic nature of these two forms. Another of the peculiarities of Panará morphosyntax is that, unlike classic Jê languages, Panará is not a verb-final language (§2.4). As a correlate of case exponence, clausal positions are also explored in this chapter, and I provide an analysis that captures their connection with case marking.

This chapter contains a discussion of the syntactic mechanisms that determine case in Panará and Jê languages. I first provide a derivational account of the Panará clause (§5.1), which sets the foundations for examining the different theories of case in current syntactic theory (§5.2), identifying their core restrictions and the predictions that they make. Next, I propose a theory of case assignment for the relationship between Jê clausal positions and case as-

signment (§5.3), wich in turn provides a basis for the mechanism that derives case assignment in Panará (§5.4). Finally, I discuss the insights that have been gained from the work on Jê case assignment (§5.4.1).

5.1 The Panará clause

In chapter 3 I discussed the three major characteristics that differentiate Panará from the rest of the Jê languages (§3.5): (a) Panará is a verb-medial language in which any participant noun phrases can appear in either the pre- or post-verbal position; (b) the Panará verb has a polysynthetic structure with a complex participant exponence morphology; and (c) the case marking of core arguments is consistently ergative (317). In the other nine Jê languages, classic Jê, the clausal word order is always verb-final; the verb can at most bear one pronominal clitic; and the case alignment is accusative, switching to ergative in clauses with nominal verbs.

(317) *The three non-Jê traits of Panará*

a. Verb-medial clauses

b. Polysynthetic verbal morphology

c. Generalized ergative/absolutive case system

Even though the main aspects of Panará on which I focus in this dissertation are case and agreement, to the extent that constituent order and clause structure are a correlate of case in classic Jê languages I also intend to address this aspect of Panará grammar. In this chapter I discuss and propose several syntactic structures for Jê languages and, in particular, for Panará. For the sake of consistency with the morpho-syntactic profile of Jê languages, I adopt a representation of lexical categories as head-final.[1]

Moving on to establishing a clause structure, the first descriptive observation is that in Panará the verb is found in a position higher than its counterparts in other Jê languages. As seen for Mẽbêngôkre in (318), Jê verbs must appear in the last position of the clause. Postverbal DPs are not allowed (318c).

(318) *Mẽbêngôkre*

a. Ba nẽ ba arỳm kukryt bĩ.
1SG.NOM NFUT 1SG.NOM already tapir kill.SH
'I killed tapir.' (el)

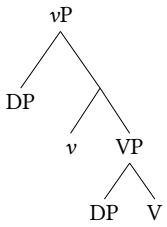
1. Jê languages present a stront tendency for a syntactic head to follow its dependent, as in the fact that adpositions are always postpositions.

b. Kukryt nẽ ba arỳm ku= bĩ.
tapir NFUT 1SG.NOM already 3SG.ACC kill.SH
'I killed *tapir*.' (el)

c. *Ba nẽ ba arỳm ku= bĩ kukryt.
1SG.NOM NFUT 1SG.NOM already 3.ACC kill.SH tapir
'I killed tapir.' (el)

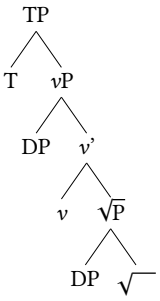
This would suggest that, in a structure such as the one schematized in (319), the verb remains in the position where it is merged in the derivation as the head of the VP.

(319)

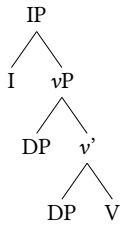


In (319), the verb stays in its base position, which results in the verb-final order that is characteristic of Jê languages. An equivalent VP structure has in effect been proposed for Mẽbêngôkre (Salanova 2007: 70) and more recently for Kĩsêdjê (Nonato 2014: 8), reproduced in (320).

(320) a. *Mẽbêngôkre*

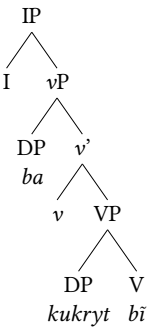


b. *Kĩsêdjê*

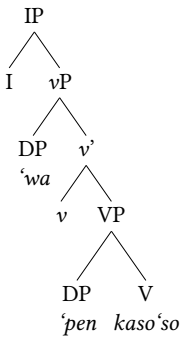


In both these structures, the verb (or the verbal root) is the element projecting the verbal category of a head-final VP. In these two languages, the position in which the verb surfaces is the VP-head position, exemplified in (321) for Mẽbêngôkre and in (322) for Kĩsêdjê.

(321) a. *Mẽbêngôkre*
Ba kukryt bĩ.
1SG.NOM tapir kill
'I killed tapir.' (el)

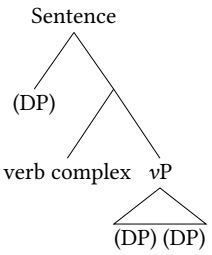
b. 

(322) a. *Kĩsêdjê*
hẽn 'wa 'pen kaso'so
FACT 1SG.NOM mangaba suck
'I sucked on a mangaba.'
(Santos 1997: 110)

b. 

As seen throughout this dissertation, the Jê strict verb-finality requirement does not apply to Panará, which is an atypical Jê language in that the verb does not need to appear in the typical Jê head-final position. Keeping the previous Jê verb-final verb phrase structure (321) in mind, this would suggest that in Panará the surface position of the verb complex is located further to the left (323), with argument DP positions both preceding and following the verb complex.

(323)



This hypothesised structure is supported by two observations: the distribution of negation and adverbs more generally on the edge of the *v*P, and the canonical order of postverbal DPs.

5.1.1 The *v*P edge

In Panará there are two negative adverbs that have a mutually exclusive distribution (§2.3). Both *inkjoo* (324) and *pjoo* (325) negate the predicate denoted by the clause. However, *inkjoo* is restricted to a clause-final position, whereas *pjoo* can only appear in an immediately postverbal position.

(324) a. Mãra hẽ ti= ∅= pĩri nãnkjô inkjoo, ti=
3SG ERG 3SG.ERG 3SG.ABS kill peccary NEG 3SG.ERG
∅= pĩri kjyti.
3SG.ABS kill tapir
'He didn't kill a peccary, he killed a tapir.' (el)

b. *Inkjẽ hẽ rê= ∅= pĩri inkjoo jãsy.
1SG ERG 1SG.ERG 3SG.ABS kill NEG deer
'I didn't kill a deer.' (el)

(325) a. Nãkãã hẽ ti= ra= nsari pjoo inkjẽ.
snake ERG 3SG.ERG 1SG.ABS bite NEG 1SG
'The snake didn't bite me.' (txt)

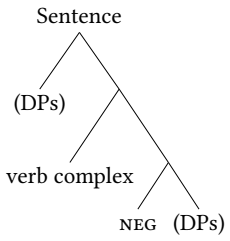
b. *Nãkãã hẽ ti= ra= nsa-ri inkjẽ pjoo.
snake ERG 3SG.ERG 1SG.ABS bite-PRF 1SG NEG
'The snake didn't bite me.' (el)

The positional alternation of *pjoo* and *inkjoo* is summarized below (326).

(326) a. (DPs) [verb complex] *pjoo* (DPs)
b. (DPs) [verb complex] (DPs) *inkjoo*

The distribution of postverbal *pjoo* is relevant for the mapping of Panará clausal positions. Negative *pjoo* is exclusively found in a position between the verb complex and the postverbal DPs, which is compatible with the analysis in which the verbal complex is outside the VP, stranding the arguments inside *v*P, on the assumption that negation marks the *v*P boundary, which is compatible with the widespread analysis in which the verb surfaces outside the *v*P, stranding the arguments inside *v*P, on the assumption that negation marks the *v*P boundary (Rizzi 1982).

(327) a. Inkjẽ hẽ rê= k= anpũ pjoo ka.
1SG ERG 1SG.ERG 2SG.ABS see NEG 2SG
'I didn't see you.'

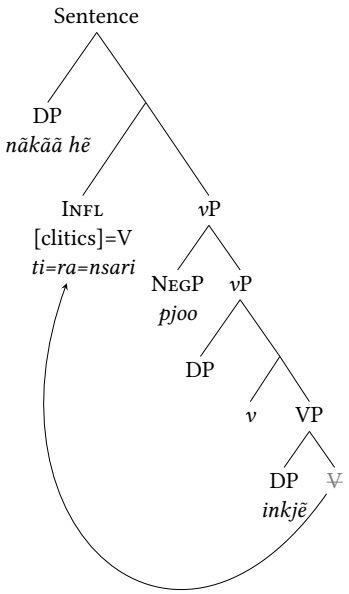
b. 

The immediately postverbal position of *pjoo* is also a position in which other types of adverbial phrases can appear (328), which supports the hypothesis that negation in that position is also phrasal.

(328) Nãkãã hẽ ti= ra= nsari pykôôma inkjẽ.
snake ERG 3SG.ERG 1SG.ABS bite morning 1SG
'A snake bit me this morning.' (el)

Taking into account the position of the verb in Panará as compared to Mẽbêngôkre and other Northern Jê languages, and the surface position of phrasal negation between the verb and the postverbal arguments, I propose that the surface position of the Panará verb complex is located outside of the verb phrase, and that the structure of Panará sentences is as in (329). I propose that the surface position of the Panará verb corresponds with INFL, an anchoring category linked with finiteness and TAME notions (Ritter & Wiltschko 2009, 2014).

(329)



Further evidence in support of a *v*P-external verb complex can be found by looking at the order of postverbal participants.

5.1.2 Postverbal participants

As I have discussed earlier in this dissertation, the postverbal position is available to argument DPs without the need for them to be marked in any way (§3.4). A DP like *kwakriti* 'spider-monkey' in (330) is not stressed and there is no prosodic break between the verb and the DP.

(330) Jy= ∅= pôô kwakriti.
INTR 3SG.ABS arrive spider-monkey
'The spider-monkey arrived.' (el)
(Context: *"How would you say that the spider-monkey arrived?"*)

Even though both core participants, the ergative and the absolutive, can occur in a postverbal position, the way in which they are ordered one relative to the other is not arbitrary. The only attested order of postverbal core arguments in recorded texts without a prosodic break intervening between them is the one where the absolutive follows the ergative (331).[2]

2. Generalized null anaphora of argument DPs in Panará makes it quite rare to find both constituents not omitted in spontaneous speech.

(331) Rê= ∅= pẽẽ= npari inkjẽ hẽ topjâpjâ Jakiô.
1SG.ERG 3SG.ABS speak hear 1SG ERG grandfather Jakjô
'I listened to my grandfather Jakjô.' (txt)

In elicitation work, informants can accept postverbal absolutive-ergative DP orders (332), but they make it clear that it is a marked construction that highlights some information to stress or clarify it, and the prosody of the clause stresses the right-located ergative participant.

(332) Ti= ∅= sisyri mãra Pôka hẽ.
3SG.ERG 3SG.ABS hit 3SG Pôka ERG
'*Pôka* hit him.' (el)
(Informant: "*You say that to correct someone telling it the wrong way.*")

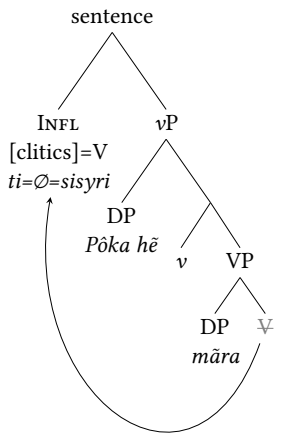
This contrasts with the otherwise neutral ergative-absolutive order of the same sentence (333), where the speaker is simply reporting a fact.

(333) Ti= ∅= sisyri Pôka hẽ mãra.
3SG.ERG 3SG.ABS hit Pôka ERG 3SG
'Pôka hit him.' (el)

The clear bias favouring an ergative-absolutive ordering of postverbal argument DPs is one of the effects that are expected of a *v*P structure in which arguments can remain in situ and the verb raises outside of *v*P to INFL, skipping *v* (402).

(334) a. [[verb complex] [$_{vP}$ DP_{ERG} *v* [$_{VP}$ DP_{ABS} V]]]
Ti= ∅= sisyri Pôka hẽ mãra.
3SG.ERG 3SG.ABS hit Pôka ERG 3SG
'Pôka hit him.' (el)

b.



The nature of the Panará data and the verb phrase structure that they support suggest that the Panará verb-ergative-absolutive order corresponds to the canonical nominative/ergative-accusative/absolutive-verb order in the verb-final Jê languages (335), the difference being structural: in Panará, the verb is not in V but in Infl.

(335) a. *Panará*

[[Infl]	[$_{vP}$ DP$_{ERG}$	*v*	[$_{VP}$ DP$_{ABS}$	V]]]
Rê= ∅= kuri	inkjẽ hẽ		pyssy.	
3sg.erg 3sg.abs eat	1sg erg		brazil.nut	

'I ate Brazil nuts.' (txt)

b. *Mẽbêngôkre*

[[$_{vP}$ DP$_{NOM}$	*v*	[$_{VP}$ DP$_{ACC}$	V]]]
Ba		pi'y	krẽ
1sg.nom		brazil.nut	eat.sh

'I ate Brazil nuts.' (el)

The hypothesis that Panará clause structure is Jê clause structure plus verb raising to a position outside the *v*P makes the right predictions regarding the distribution of negation and adverbial phrases in the clause and the ordering of postverbal participants.

5.1.3 The left periphery

Both in classic Jê languages and in Panará, there are clausal positions further to the left from the position that we have identified as INFL. In classic Jê languages, like Mẽbêngôkre (336), this corresponds to what is traditionally called the emphatic position, as seen in previous chapters and repeated here.

(336) *Classic Jê*

a. *Mẽbêngôkre*

Ga	nẽ	ba	a=	pumũ.
2SG.NOM	NFUT	1SG.NOM	2SG.ACC	see

'I saw *you*.' (el)

b.

preverbal area				verb complex
emphatic	TAME	NOM/ERG	ABS/ACC	[clitic | verb]

Constituents with either of the unmarked cases (accusative and absolutive) surface in this position with the marked case corresponding to that alignment. There are reportedly other positions further to the left, such as a Focus position that presents different properties from the emphatic or Topic positions (Salanova 2007: 35). This is illustrated in (337) for Xavante (Central Jê), where the first person participant is mapped both to the emphatic position, immediately before the TAME position, and to an additional position further to the left.

(337) *Xavante*

Ãhãta,	wa-hã	wa	za	ĩĩ=	mreme.
DEM	1SG-EMPH	1SG.NOM	PROSP	1SG.ABS	speak

'Then, me, I'm going to speak.'
(Estevam 2011: 359)

In Panará, the left periphery corresponds to the clausal positions further to the left of the verb complex, which surfaces on the INFL node (338). Other than adjuncts and obliques, both ergative DPs and absolutive DPs can surface in that position.

(338) a. *Panará*
Nãkãã hẽ inkjẽ ti= ra= nsa-ri.
snake ERG 1SG 3SG.ERG= 1SG.ABS= bite
'A snake bit me.' (el)

b.

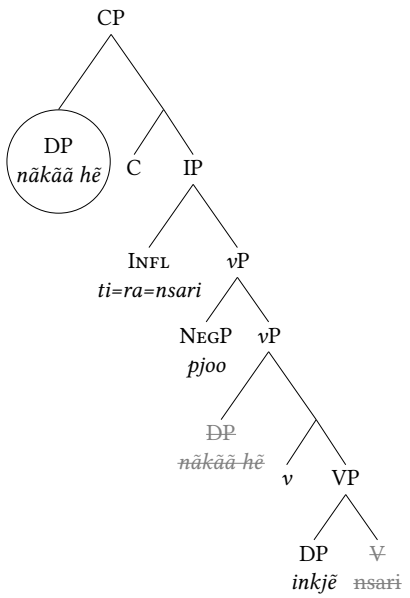
preverbal	verb complex	postverbal
(NP)	[TAME | ERG | … | ABS | verb]	(NP)

The properties of the functional heads located on the left periphery have been investigated and mapped in multiple languages, particularly in the cartography line of research (Cardinaletti & Roberts 2002; Cinque 2004; Rizzi 1997). However, rather than mirroring a similar approach, in this dissertation I remain agnostic as to the syntactic status of left peripheral functional categories. First, unlike case, information structure is severely understudied in Jê languages, to the point that it is virtually impossible to find information detailed enough to form a clear picture of this issue in the vast majority of the languages in the family. Second, my own data collection has so far provided inconclusive results to diagnose the different types of Focus and Topic (cf. Götze et al. 2007). That being said, the left periphery of Jê languages is clearly a topic that should urgently be studied in detail.

As it is, for the case marking phenomena that are the focus of this dissertation, it suffices to abstract over the specific articulation of the left periphery in Jê languages and use a single category on which the left-periphery DPs from all the data sources available can be located. In line with current scholarship, I assume that movement to left peripheral positions is the result of Ā movement. I represent the positions occupied by left-peripheral DPs as being on CP (339).

(339) a. Nãkãã hẽ ti= ra= nsa-ri.
snake ERG 3SG.ERG= 1SG.ABS= bite
'A snake bit me.' (el)

b.



Postulating a broad CP projection provides enough flexibility to represent the DPs that appear in the left-peripheral positions for which the data from all ten Jê languages discussed in this dissertation (especially in ch. 3) present evidence.

5.1.4 A layered *v*P

The syntactic structures proposed above for Panará and more generally Jê verb phrases contain what is known as a layered *v*P structure, where the syntactic head that corresponds to the lexical verb, V, is further merged with a syntactic head *v*. This was first proposed as a solution to the need of more than one verbal head, for the selection of two arguments in transitive clauses (Kratzer 1996)

The behaviour of the transitivizer *ho* morpheme (described in §4.2.2), which appears in the Panará verb complex, can provide some insight into the functional structure of the verb phrase. More precisely, *ho* can be argued to be the morphological exponent of an inserted transitive *v*. This is suggested by two observations: case marking and verbal class.

In Panará, monovalent intransitive verbs never license an ergative DP in the clause (§3.4.1). As supported both by spontaneous speech and solid acceptability judgements, only absolutive, dative or oblique participants are allowed in a root intransitive clause, while ergative participants are not (340).

(340) a. Ka= ti= ∅= inkin swankjara pẽẽ.
IRR NSPK NADRE good ancient language
'The language of the ancients will turn out nice.' (obs)

b. *Ka= ti= ∅= inkin swankjara pẽẽ hẽ.
IRR NSPK NADRE good ancient language ERG
'The language of the ancients will turn out nice.' (el)

A root intransitive verb may only license an ergative participant if transitivizer *ho* appears in the verb complex. In that case, not only is ergative case allowed in the clause, but it is obligatory—on the external argument (341).

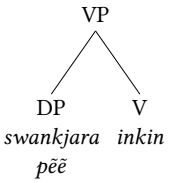
(341) a. Ka hẽ ka= ti= ho= ∅= inkin swankjara pẽẽ.
2SG ERG IRR NSPK CAUS 3SG.ABS good ancient language
'You will get nicely the language of the ancients.' (txt)

b. *Ka hẽ ka= ti= ∅= inkin swankjara pẽẽ.
2SG ERG IRR NSPK 3SG.ABS good ancient language
'You will get nicely the language of the ancients.' (el)

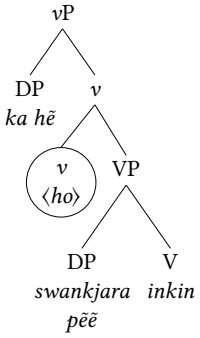
c. *Ka ka= ti= ho= ∅= inkin swankjara pẽẽ.
2SG ERG IRR NSPK 3SG.ABS good ancient language
'You will get nicely the language of the ancients.' (el)

As I discuss later in this chapter (§5.3), there are reasons to connect ergative case in Jê languages directly to the presence of a transitive *v* head. In addition to that, on a more descriptive level what is attested is that ergative case, an exclusive property of transitive clauses, is found only in clauses with root intransitives when they are transitivized and *ho* appears in the verb complex. I propose that in such cases, *ho* spells out the addition of a transitive *v* in the verb phrase of root intransitive verbs (342).

(342) a. *Root intransitive*



b. *Addition of vP*



A second argument supporting Panará *ho* as an added transitive *v* revolves around the class of verbs with which *ho* can appear. If *ho* is a transitive *v* added to an intransitive VP, the prediction would be that *ho* cannot appear on root transitive verbs, which are already endowed with a *v*P structure. This prediction is borne out, as in Panará transitive verbs are unable to host *ho* to derive causative semantics (343), for which the language needs to resort to a syntactic causative construction (343b).

(343) a. *Inkjẽ hẽ rê= ho= ∅= kuri inkjẽ jõpãã suasĩra
1SG ERG 1SG.ERG CAUS 3SG.ABS eat 1SG child peccary
jĩ.
meat
Intended: 'I made my child eat peccary meat.' (el)

b. Inkjẽ jõpãã rê= s= ãtori ti= ∅= kuri
1SG child 1SG.ERG 3SG.ABS send 3SG.ERG 3SG.ABS eat
suasĩra jĩ ahê.
peccary meat FIN
'I made my child eat peccary meat.' (el)

Thus, only intransitive verbs can be causitivized with *ho*, supporting the analysis presented here of *ho* as a transitivizing morpheme rather than a causative. The causative semantics is the consequence of the interaction between the augmented valence and the verb's own semantics.

The observation is that *ho* is only compatible with root intransitive verbs, in which case the verb is rendered transitive. Conversely, *ho* is incompatible with root transitive verbs. I argue that this supports the proposal that *ho* is a morphological spell-out of an inserted transitive *v*.

Classes of intransitive verbs

In Panará there are no clear formal criteria to identify subclasses of intransitive verbs. All intransitive verbs present the same verbal morphology and the same pattern of case marking. This is illustrated for two verbs commonly considered prototypical unergative and unaccusative verbs crosslinguistically (344).

(344) a. *Unergative semantics*
Toopytun jy= ∅= pẽẽ.
old.man INTR 3SG.ABS talk
'The old man talked.' (el)

b. *Unaccusative semantics*
Kwakriti jy= ∅= ty.
spider-monkey INTR 3SG.ABS die
'The spider-monkey died.' (el)

If there is such a thing as intransitive subclasses based on semantic notions, unergative verbs denote an agentive action and unaccusative verbs have a telic component. As the previous example illustrates, in Panará the single argument of unergative verbs surfaces with unmarked absolutive case, rather than being marked with ergative as in Basque (Preminger 2012).

There are two verbs in Panará, already pointed out by Dourado (2003: 8), that on the surface appear to be intransitive verbs with ergative arguments. In (345) we see clauses with an ergative DP and no absolutive (bare) DP in the same clause, but an oblique instead. The morphology in the verb complex is also transitive-looking, with no *jy* intransitive realis modal clitic and an ergative pronominal clitic. We can also see that the ergative argument does not necessarily bear an agentive thematic role.

(345) a. Prĩ hẽ ti= ∅= piasôôri sõsê hã.
child ERG 3ERG 3SG.ABS suckle teat ADES
'The child suckled on the breast.'

b. Inkô hẽ ti= ∅= pu pârikâ amã.
water ERG 3SG.ERG 3SG.ABS full canoe INES
'Water filled the canoe.'

I have only been able to identify two "intransitive ergative" verbs. I see no justified reason to assume that they belong to a subclass of unergative verbs in Panará. First, they do not present uniform semantics: 'to suckle' is a more agentive verb, semantically unergative, while 'to be filled' is instead telic or resultative, if anything closer to unaccusative semantics. Second, postulating a class of unergative verbs so restricted and unpredictable based on idiosyncratic evidence is less explanatory than assuming that certain transitive verbs can have an internal object that does not appear as a bare noun phrase but is instead marked with an oblique case.

Based on the available evidence, I propose that these are two transitive verbs and that in Panará internal arguments do not invariably require the unmarked bare form. The remainder of this section contains supporting evidence agains subclasses of intransitive verbs in Panará.

In Kĩsêdjê, also a Northern Jê language (§3.3.3), Nonato (2016) establishes two classes of intransitive verbs distinguishing between unergative and unaccusative verbs (Perlmutter 1978) on the basis of language-internal criteria, namely patterning with alienable/inalienable possession. Unaccusative verbs take absolutive arguments, just like inalienable possession is indicated with an absolutive possessor (346), while neither unergative verbs or alienably possessed nouns can (347).

(346) a. *Kĩsêdjê inalienable possession*
i= pãmã
1SG.ABS father
'My father.'
(Nonato 2016: 76)

b. *Kĩsêdjê unaccusative verb*
Hẽn wa i= katho.
DECL 1SG.NOM 1SG.ABS exit
'I exited.'
(Nonato 2016: 76)

(347) a. *Kĩsêdjê alienable possession*
i nho khrwâj
1SG.ABS POSS parrot
*i= khrwâj
1SG.ABS parrot
'My parrot.'
(Nonato 2016: 77)

b. *Kĩsêdjê unergative verb*
Hẽn wa (*i=) thẽ.
DECL 1SG.NOM 1SG.ABS enter
'I went.'
(Nonato 2016: 77)

Like other Jê languages, in Kĩsêdjê absolutive inflection is used to indicate inalienable possession. Panará, rather than clitics of the absolutive paradigm (or any paradigm at all), uses instead free pronouns juxtaposed with the possessum to indicate this kind of possession (348), so the inflectional analogy that allows Nonato to tease apart unaccusative and unergative intransitives in Kĩsêdjê based on whether they pattern with alienable or inalienable possession is not applicable to Panará.

(348) a. *Panará inalienable possession*
Inkjẽ junpjâ.
1SG father
'My father.' (txt)

b. *Panará alienable possession*
jy= a= katoo kukre pêê. //
Inkjẽ jõ kwakriti.
2SG INTR 2SG.ABS
'You exited the house.' (el)

Semantically unergative verbs like *tẽ* also behave like other intransitive verbs, such as *katoo*, when interacting with the transitivizer *ho* (349).

(349) a. Inkjẽ hẽ rê= ho= a= tẽ ka.
1SG ERG 1SG.ERG CAUS 2SG.ABS leave 2SG
'I made you leave.' (el)

b. Inkjẽ hẽ rê= ho= a= katoo ka.
1SG ERG 1SG.ERG CAUS 2SG.ABS exit 2SG
'I sent you away (e.g. to bring something).' (el)

Once again, it does not look like the ergative in (349) is a derived subject. What causative *ho* appears to do is add a transitive *v* to intransitive verbs, which as we saw earlier in this section is supported by its ungrammaticality with transitive verbs. To accomodate the Kĩsêdjê facts in the Jê clausal structure proposed so far in this chapter, I extend the intransitive verb phrase to include a *v* layer that, following Deal (2016), I notate as *v*~ to distinguish it from transitive (or unergative) *v*. The derivational analysis of Panará irrealis cross-reference morphology appears to support an unaccusative verb phase more articulated than just a VP layer (§6.2).

If Panará unergative verbs had a different verb phrase structure, with a transitive-like *v*P layer, the predictions would be that these verbs would have an ergative argument and that transitivizer *ho* would be unavailable (350).

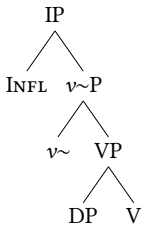
(350) *Transitivizer* ho

a. $ho \leftrightarrow [v\sim \rightarrow v]$

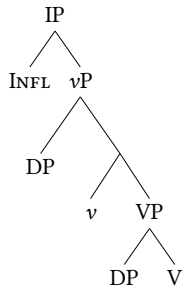
In this section I have explored possible diagnostics for formally different classes of intransitive verbs in Panará. In other Jê languages such as Kĩsêdjê the morphosyntax of case is a solid diagnostic for unaccusativity, predicting that unergatives and unaccusatives will emerge with a different case marking. However, neither of these predictions are substantiated by the available data

when it comes to Panará. Based on the evidence discussed in this subsection, I sustain that all intransitive verbs in Panará are unaccusative in their verb phrase structure (351).[3]

(351) a. *Panará intransitive*



b. *Panará transitive*



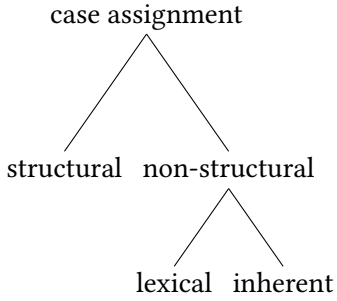
In the rest of the chapter I take the clausal structure that has emerged for Panará and Jê languages as a point of departure for establishing a theory of case in Panará and Jê languages. But first, in the next section I present an overview of competing approaches to case, particularly in ergative case systems.

3. I make no claims as to the status of unaccusative and unergative semantic distinctions in Panará intransitives. To the extent that no corresponding natural classes can be identified in the syntax of Panará, I treat all intransitive verbs as having the same underlying structure.

5.2 The mechanisms behind case

There have been various generative approaches to core cases. This section contains a discussion of the different case assignment mechanisms that deal both with nominative-accusative and ergative-absolutive case systems. Following structural case, and inherent case. Following the classification proposed by Woolford (2006), I discuss the mechanisms in the two broad approaches, structural and non-structural, and the predictions that they put forward.

(352)



5.2.1 Non-structural case

Non-structural case is defined as being assigned not as a consequence of a structural configuration, but as a result of locality with a specific element, the case assigner. In what follows I discuss the two major types of non-structural case: lexical case and inherent case.

5.2.1.1 Lexical case

Lexical case is an idiosyncratic, lexically assigned case directly tied to the presence of the assigning lexical item (Woolford 2006: 112). In lexical case, as a result of selection by an assigning lexical item, the selected element is marked with a particular case.

The sentences in (353) exemplify lexical case in Icelandic, where some intransitive verbs assign lexical dative or genitive cases, instead of structural nominative case.

(353) a. *Structural nominative case*
Bókin brann.
book.NOM burn
'The book burned.'
(Wood 2017: 259)

b. *Lexical dative case*

Bátnum hvolfdi.
boat.DAT capsized
'The boat capsized.'
(Woolford 2006: 114)

Another example of lexical case is the case assigned by particular adpositions. In Latin, some adpositions like *intus* 'inside' assign lexical ablative case (354a) , while other adpositions assign lexical genitive case to their object, like *gratia* 'for the sake of' (354b).

(354) a. *Lexical ablative case*

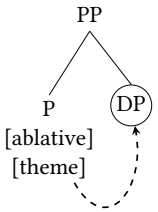
Omnes festinant intus totis aedibus ...
all.NOM.PL hurry.3SG.PL.PRS inside whole.ABL dwelling.ABL.PL
'Everybody's rushing around inside through the entire house.'
(Pinkster 2015: 1231)

b. *Lexical genitive case*

Hancine aetatem exercere mei amoris gratia ?
DEM.DAT age.ACC harass.INF 1SG.GEN love.GEN for.the.sake.of
'But to harass him, at his age, with my love affair?'
(Pinkster 2015: 1233)

Unlike structural case, the clausal configuration is not a reliable predictor that an instance of case is assigned. Instead, only by knowing beforehand the lexical case assigned by a specific lexical item, e.g. a verb or an adposition, can we anticipate it. In other words, lexical case is not syntactically predictable, but is instead assigned locally together with a thematic role as soon as the case assigner and the case recipient are merged (Woolford 2006: 110), illustrated in (355).

(355)



Further additions to the syntactic structure of the clause cannot override the lexical case assigned via non-structural mechanisms. Woolford (2006: 117) proposes that only lexical categories (V and P) assign lexical non-structural case, while inherent case is assigned exclusively by the *v* head.

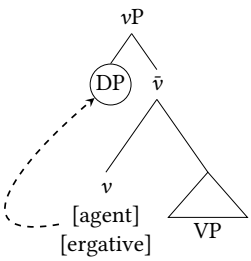
5.2.1.2 Inherent case

The second type of non-structural case is inherent case. This is the non-structural mechanism that has often been argued to be responsible for ergative case either universally (Legate 2008, 2012; Woolford 2006) or in particular languages, such as Warlpiri (Legate 2008) or Chol (Coon 2013)

Woolford (2006: 117) proposes that the distinction between inherent and lexical cases, the two non-structural cases, is connected to the syntactic nature of the case assigners. In her approach, lexical categories (like V and P) always assign lexical case, while inherent case is always assigned by functional heads, restricted in fact to only *v* in Woolford's view.

Inherent case, as a non-structural case, shares with lexical case the property of being assigned jointly with a thematic role as soon as the structure-building operations generate the appropriate local configuration for the assigning element to assign its case. In the case of ergative case systems, ergative case is argued to be assigned upon merge with $\bar{v}$ at the same time as an agentive thematic role (356).

(356)



Inherent case assignment is a rather specific mechanism. The clear limitations on how it operates are useful for determining diagnostics for this type of case. More precisely, a case assigned as inherent case is connected to a thematic role and cannot be overruled by a later case assigned to the same constituent.

θ-relatedness

Since Woolford's (2006) seminal paper, assignment of inherent case is tied to θ-marking of an XP. If inherent case is assigned with a θ-role as soon as the conditions are met, e.g. upon merge of *v*' with its specifier (356), these two elements are not predicted to occur separately.

This mecanism makes two predictions concerning the occurrence of cases claimed to be inherent. For ergative case, both predictions have been challenged. First, Bruening (2007) noted that ergative case systems have been

argued to emerge as a special marking of the external arguments of non-prototypical transitive verbs, that is, those with non-agentive semantics (Silverstein 1976). Silverstein discusses differential ergative case marking in Dalabon (Gunwinyguan), which appears exclusively on agent DPs that have an equal or lower animacy than the patient DP Silverstein (1976: 129).

Second, the objection has been raised that in many languages with ergative case, DPs/CPs receive ergative marking independently of their thematic role being more agentive or less (Baker 2014; Bruening 2007; Deal to appear). This is illustrated for Panará (357), with two non-agentive ergative DPs.

(357) a. Kâjasâ hẽ ti= ∅= kjã= syri pâri.
machete ERG 3SG.ERG 3SG.ABS head cut stick
'The machete cut the branch.' (el)

b. Inkô hẽ ti= ∅= pu pârikâ amã.
water ERG 3SG.ERG 3SG.ABS full canoe INES
'Water filled the canoe.' (el)

To address this line of criticism, Legate (2012: 183) suggests that the relevant θ-role should not be considered to be that of agent, but rather a broader one such as *initiator*.

The precise identity of the thematic role that is inherently connected to ergative case is manifestly unclear and can be a source of confusion of what would otherwise be a very clear-cut diagnostic for inherent ergative case. This seems to be a consequence of a broader issue, namely the fact that no theory of thematic roles has been put forward or explicitly connected to the existing accounts of inherent case.

Case preservation

Another crucial diagnostic of inherent case is its independence from structural operations. If inherent case is assigned independently of clausal structure, such as tied to the θ-role assignment operation (§5.2.1.2), we predict that inherent case should not be sensitive to any further changes in the clausal structure.

A classic example of this CASE PRESERVATION property of inherent case comes from Scandinavian languages like Icelandic, where certain verbs can assign dative case to their object (358).

(358) *Icelandic passive: dative*

a. Ég hjálpaði honum.
1SG.NOM helped him.DAT
'I helped him.'
(Zaenen, Maling & Thráinsson 1985: 445)

b. Honum var hjálpað.
him.DAT was helped
'He was helped.'
(Zaenen, Maling & Thráinsson 1985: 442)

As Zaenen, Maling & Thráinsson (1985) first pointed out, while in Icelandic an argument with accusative case in the active voice receives nominative case in passive constructions (359), a dative argument instead retains its dative case in the passive (358).

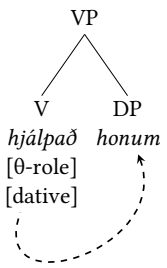
(359) *Icelandic passive: accusative*

a. Lögreglan tók Siggu fasta.
the.police took Sigga.ACC fast.ACC
'The police arrested Sigga.'
(Zaenen, Maling & Thráinsson 1985: 443)

b. Sigga var tekin föst af lögreglunni.
Sigga.NOM was taken fast.NOM by the.police.DAT
'Sigga was arrested by the police.'
(Zaenen, Maling & Thráinsson 1985: 443)

Phenomena like the Icelandic passive above illustrate the case preservation property of inherent case. Icelandic objective dative case is assigned inherently by certain verbs to their internal argument upon merge (360), after which the dative argument retains its case through the rest of the derivation (Woolford 2006).

(360)



The notion of case preservation provides a clear diagnostic for inherent case, unlike θ-relatedness, which ultimately is often dependent upon assumed thematic role theories that are usually not made explicit. A DP bearing a morphological case that is sensitive to syntactic operations equivalent to passivization can therefore not be marked with an inherent case. As pointed out by Bruening (2007), the existence of an antipassive construction that, mirroring the passive (359), demotes the absolutive to oblique and assigns absolutive case to the "agent" argument (361) contradicts this prediction in its strong version.

(361) *Yidin^{y} (Pama-Nyungan)*

a. *Active transitive*
wagud^{y}a-ŋgu d^{y}ugi gunda-l (galba:n-da)
man-ERG tree.ABS cut-PRS (axe-INS)
'The man is cutting a tree (with an axe).'
(Dixon 1979: 26)

b. *Antipassive*
wagud^{y}a gunda-:d^{y}i-ŋ d^{y}ugi-:l (galba:n-da)
man.ABS cut-AP-PRS tree-LOC (axe-INS)
'The man is cutting a tree (with an axe).'
(Dixon 1979: 27)

The problem posed by antipassives is addressed with the addition of a TRANSITIVITY CONDITION to the inherent case theory, which restricts the assignment of inherent case to the presence of a transitive *v* (Legate 2008). Ergative case on intransitive subjects (subjects of unergative intransitive verbs) requires the assumption of a transitive structure in such verbs, which is not always evident (J. D. Bobaljik 1993; Laka 2006a,b).

The opposite prediction is also made: if a morphological case is an inherent case assigned with a thematic role, a DP marked with that case should always maintain it regardless of the operations that it may undergo later on in the derivation. In other words, non-structural case assignment cannot be fed by movement, unlike structural case. Among others, Woolford (2006) and Legate (2012) have based their inherent case approaches to ergativity on the ERGATIVE CASE GENERALIZATION, which has become integrated into current incarnations of inherent ergative case (362).

(362) Even when ergative case may go on the subject of an intrans- itive clause, ergative case will not appear on a derived subject. (Marantz 1991: 236)

Following up on this line of thought, recently it has been argued that ergative case in Shipibo (Panoan) (Baker 2014) and in Nez Perce (Penu- tian) (Deal to appear) cannot be an inherent case. The RAISING TO ERGATIVE phenomenon observed in these two languages contradicts the inherent case prediction of a distinction between thematic and derived subjects:

> "In general, transitive verbs have a thematic subject that becomes the surface subject, making it impossible to test whether a de rived subject could bear ergative case. An additional way around the confound would be a two-argument verb in which both ar- guments are internal, for example, the passive of a double object verb, or the applicative of a unaccusative verb. If the Ergative Case Generalization holds, the subject of such verbs would not bear ergative case, despite the presence of two DP arguments" (Legate 2012: 183).

Deal (to appear) provides evidence against case preservation by examining the applicatives of unaccusatives in Nez Perce. In this lan- guage, when an applicative is added to an unaccusative verb, the theme argument receives ergative case, thus contradicting the case preserva- tion prediction for ergative languages.

Baker (2014) also presents Shipibo data that demonstrate that de- rived subjects of unaccusative verbs, never external-merged with a transitive *v*, are capable of receiving ergative case (363).

(363) *Shipibo raising to ergative*

a. Bimi-ra joshin-ke.
fruit-EV ripen-COMPL
'The fruit ripened.'
(Baker 2014: 345)

b. Bimi-n-ra Rosa joshin-xon-ke.
fruit-ERG-EV Rosa ripen-APPL-COMPL
'The fruit ripened for Rosa.'
(Baker 2014: 346)

These recent findings strongly contradict the notion that ergative in Shipibo and Nez Perce is an ihnerent case. Unlike an antipassive (loss of ergative case with detransitivization), raising to ergative (the presence of ergative case in an intransitive clause) cannot be covered by the transitivity requirement.

Moreover, the existence of such a phenomenon as raising to ergative constitutes a challenge for the notion that an inherent case mechanism underlies

all ergative case systems in the world's languages. Indeed, both Baker and Deal propose instead a structural case mechanism to derive ergative case in Shipibo and Nez Perce, respectively.

5.2.1.3 Non-structural case: summary

Non-structural case mechanisms of two types have been proposed. Lexical case is assigned locally by lexical categories to their complement, and inherent case is assigned by functional categories (maybe only by *v*, as per (Woolford 2006)). Both types of non-structural case are assigned upon merge with the case receiver, jointly with a specific thematic role.

Two properties of non-structural cases serve as disgnostics to identify them. Non-structural case is claimed to always go hand-in-hand with the assignment of a thematic role (θ-relatedness). Once non-structural case is assigned, it becomes fixed—no subsequent case assignment can override it (case preservation).

Regarding ergative case systems particularly, it has been claimed that ergative case is universally an inherent case (Coon 2013; Legate 2012; Sheehan 2017; Woolford 2006). However, in light of recent discoveries concerning raising to ergative operations in Nez Perce and Shipibo, the hypothesis that ergative case is always assigned as an inherent case needs to be rejected.

5.2.2 Structural case

Structural case does not depend on selection or thematic role assignment by a particular lexical item. Unlike inherent case, structural case is considered a direct correlate of clausal structutre. An example would be accusative case in a language like Latin, where the internal argument receives accusative case in one construction, the active voice (364a), and nominative case in a different construction, the passive voice (364b).

(364) *Latin structural accusative*

a. Custodes captivos vinxerunt.
guards.NOM prisoners.ACC tie.up.PRF
'The guards bound the prisoners.'
(Klyve 2002: 443)

b. Captivi a custodibus vincti erant.
prisoners.NOM by guards.ABL tied.up were
'The prisoners had been bound by the guards.'
(Klyve 2002: 101)

The initial structural case assignment approach, believed to operate under a specifier-head configuration (Chomsky 1981, 1991; Kayne 1989; Pollock 2017), was very tightly connected to the licensing of noun phrases. Under this approach, a syntactic mechanism known as the Case Filter (Chomsky 1981) requires all nouns to receive abstract case. When a nominal cannot receive oblique case from a lexical item (like an adpositional P head), it needs to receive abstract case in a local configuration from a local configuration.

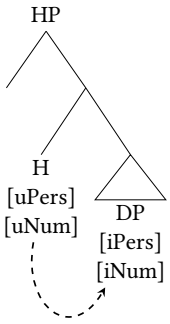
In the following sections I turn to the two mechanisms of case assignment based on structural notions. In the Minimalist Program framework, the classic case assignment system gave rise to a less local case mechanism, Agree. Alternatively, the dependent case approach was first proposed has gained traction in recent years especially in the analysis of ergative as a structural case.

5.2.2.1 Case by Agree

The major mechanism used nowadays to explain both agreement and structural case was introduced by Chomsky (2000, 2001) and developed further in subsequent minimalist work. This operation, called AGREE, is at its core a gov-

ernment relation, consisting in c-command and locality.[4] This is formalized through a feature-checking rule between a functional head and a phrase.

(365)



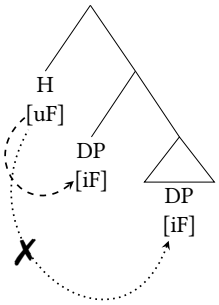
In the configuration above (365), the H head PROBE has a set of uninterpretable person and number features that are valued or checked through its relation with the DP GOAL via c-command. A goal is any phrase with interpretable features [iPers, iNum] matching the uninterpretable counterparts of the same features on the probe, [uPers, uNum] in the example above. At the same time as it checks the agreement features on the goal, the probe licenses the DP's case (Chomsky 2000).

In standard Agree approaches, the derivation will fail ("crash") if any unvalued features remain at the end of the structure-building process. It has been argued however that unsuccessful Agree probes can still be grammatical and give rise to well-formed constructions (Preminger 2014).

As a c-command based operation, Agree is subject to locality (366).

4. C-command is the syntactic relation between a node and its sister. In a configuration [*a b*] where *a* is merged with *b*, *a* c-commands *b* and all elements contained in *b*.

(366)



In the configuration above, an XP with the relevant unvalued features to make it a goal for a given probe will block further probing. This phenomenon, known as INTERVENTION (Chomsky 2000), restricts the possible goals of an Agree relation to the closest c-commanded possible target.

Specific mechanisms aside, we could say that this operation implies that Agree takes place when a feature-impoverished head like T(ense) is merged with a sister that contains a phrase carrying properly complete versions of those features. This allows for the features on T to be actualized with the values of the corresponding features within its sister, and in turn the relevant phrase in T's sister has a chance to have unvalued features checked with the value on T. The existence of features that need VALUATION is at the center of Agree-based approaches.

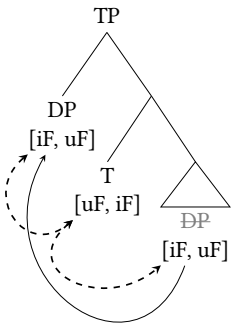
Recently, a debate has emerged following Zeijlstra's (2012) article on the relative position of the probe functional head and the goal DP within the clause structure at the application of Agree. Zeijlstra points out several problems for an agreement theory in which the probe is higher on the clausal structure than the goal, and proposes a universal UPWARD AGREE.[5]

This builds on a proposal by Bošković (2007), for whom a unidirectional Agree can stand in for the classic EPP feature.[6] As long as Agree is rigid enough that it can operate in only one direction (either up or down), the presence of uninterpretable features on both the probe and the goal will require the DP to move to a position where it can c-command the agreeing T head (367).

5. Also referred to as *upward probing* or *downward valuation*. There is some disagreement on Agree terminology.

6. Originally standing for Extended Projection Principle (Chomsky 1982), nowadays the EPP feature is sometimes considered to be carried by a functional head like T, and requires a phrase to merge in the specifier position.

(367)



In (367), barring multidirectional Agree, movement of the DP to the specifier of the functional head with which it agrees becomes obligatory. In a Downward Agree valuation, with a probe > goal structure, T values the [uF] feature on the DP. For the DP to value the [uF] feature on T, it will need to move to a position where it can c-command it as the probe. In Upward Agree, the opposite will happen: the DP will check the [uF] on T, and will then move to a position where its own [uF] feature can be valued.

In both modes of operation, the valuation of the features on the DP will also license its case, nominative in this example. Doing away with the EPP feature is a bonus, although this can raise further complications for the theory if such a close attachment to EPP effects is not always desired.

Zeijlstra thus argues that an Agree relation where it is the goal that c-commands the probe is preferable, rooted in the fact that it can capture all of the instances of agreement relationships that Downward Agree can, and also some phenomena that pose problems for Downward Agree alone. The claim relies strongly on the existence of certain cases where only an upward analysis is possible (negative concord, sequence of tense, multiple agree), while all cases traditionally approached as Downward Agree appear to also fall within Upward Agree. A strict Upward Agree also has the advantage of doing away with EPP features, or at least providing a motivated alternative. However, as pointed out by Preminger (2013), the cases in which Upward Agree is proven advantageous are all cases that do not involve what is conventionally called agreement, i.e. φ-Agree, but other phenomena that are also resolved under the Agree operation, such as negative concord or sequence of tense.

With an Agree approach, the core cases are assigned by Agreeing functional heads. In a nominative-accusative system, nominative is usually believed to be assigned by T, while accusative is assigned by *v*. In the next section I describe an approach to ergative-accusative systems within an Agree mechanism.

5.2.2.1.1 Agree with multiple heads

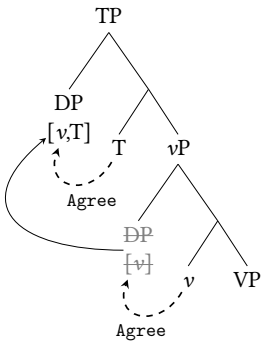
Recently a specific version of Agree-driven structural case has been proposed in analyses of ergative case systems: Agree of a single constituent with multiple heads, or a stacking of Agree relations. In this approach, a structural case is the result of the morphological spell-out of Agree features on DPs/CPs. This derivation of structural case was first proposed for the case system of Nez Perce (Penutian) by Deal (2010) and has since also been adopted to derive the case system of Amahuaca (Panoan) by Clem (2017).

The difference between a standard Agree approach and the stacking of Agree relations is that case is not assigned to a DP goal after being successfully probed by a case assigner. Instead, as a result of the first successful Agree relation, the DP acquires a feature [H^1] connecting it to the probing Head^1. Future developments in the syntactic derivation might make the same DP the goal of yet another Agree relation, upon which it will acquire a different feature [H^2] from the probing Head^2.

At the lexical and morphological insertion stage of the derivation, individual features as well as bundles of features can be specified as being spelled out with specific morphology.[7] Following the previous example, three spell-out possibilities exist: not just for [H^1] and for [H^2], but also of the [H^1, H^2] bundle.

The tree in (368) exemplifies Agree stacking as proposed by Clem (2017) for Amahuaca.

(368)



In Amahuaca, transitive subjects that remain low are not marked ergative, while those that move to a position further up on the clausal structure (at least Spec,TP) receive ergative case (369). This is captured under the approach in

7. In this model, abstract syntactic objects and features undergo the syntactic derivation and are later matched with lexical items, such as roots and inflectional or derivational morphology.

(368) if ergative case is the spell-out of a [*v*,T] feature bundle, resulting from the same DP having entered into Agree with two different functional heads. A further refinement of the system of Agree feature inheritance allows a *v* head to retain a [φ] feature from Agreeing with an internal argument, which alters the type of [*v*] feature inherited by an Agreeing external argument to a [*v*,φ] feature. This can be expanded to a more complete [*v*,φ]+[T] feature bundle if default case is the spell-out of [D].

(369) [*v*,φ]+[T] ↔ ERG

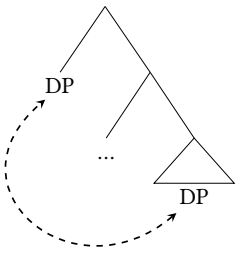
Thus, a complex case pattern like the one observed in Amahuaca can be derived by using a mechanism (Agree) and formal elements (agreement features and categories) all of which are independently used to generate clausal structure and syntactic relations in contemporary generative models.

5.2.2.2 Dependent case

A second structural case-assignment mechanism is DEPENDENT CASE (Marantz 1991). In this approach, based on the case assignment mechanism proposed by Yip, Maling & Jackendoff (1987), structural case is the result of a competition between two DPs (or CPs) that occur in the relevant structural configuration.

Dependent case theory is built on the idea that core arguments exist in a markedness opposition that needs to be resolved. The consequence is that dependent case is assigned to one of two "case competitor" DPs to resolved the opposition in a case domain, which may be a clause or a smaller constituent like a *v*P. If dependent case is assigned to a caseless DP that c-commands another DP it generates ergative case, and if the DP marked with dependent case is c-commanded by another DP it generates accusative case (370).

(370)



In other words, languages vary in the direction in which the dependent case is assigned between two case competitors. To be a case competitor, a phrase cannot be case-marked, taking oblique and inherent case-marked DPs out of the equation.

Dependent case can capture the distribution of most types of case without adding a very complex mechanism. The only necessary assumptions are a morphological system that is capable of interpreting the relative distribution of two DPs taking syntactic hierarchy into consideration, and a stipulated case domain to constrain the application of the rule.

As a structural case, dependent case is by definition sensitive to non-local syntactic relations, and unlike inherent case it can be fed by movement. Structure building can expand or create new case domains, and move DPs into different configurations, thus changing the outcome of dependent case assignment. Dependent case is considered a versatile theory. It is capable of predicting quite complex patterns of case marking, such as Moro (Kordofanian, Sudan) accusative case, where multiple dependent case-marked DPs are possible (371).

(371) *Moro accusative case rule* (Jenks & Sande 2017)
If there are two DPs in φ , and DP1 c-commands or contains DP2, value DP2 as accusative.

a. *Ditransitives*
éga-nac-ó ŋállo-ŋ kója-ŋ
1SG-give-PRF Ngallo-ACC Koja-ACC
'I gave Ngallo to Koja. / I gave Koja to Ngallo.'

b. *Passives*
ŋállo gâ-nac-on-ú kója-ŋ
Ngallo 1SG-give-P-PRF Koja-ACC
'Ngallo was given to Koja.'

c. *Bare nominal complements*
lânge kúku-ŋ / lâng-en gó-kúku
mother Kuku-ACC mother-3poss poss-Kuku
'Kuku's mother.'

d. *Coordination*
kúku na ŋalo-ŋ l-aŋer-á
kuku and Ngalo-ACC rt-good-Adj
'Kuku and Ngalo are nice.'

Dependent case has proved successful in accounts of ergative case systems (Baker 2014; Baker & J. Bobaljik 2017) since, unlike Agree, ergative case follows from the case assignment rule as easily as accusative case. However,

for all its predictive power, dependent case is not without drawbacks. On the one hand, dependent case does not need to stipulate the presence of otherwise unmotivated unvalued features on the constituents that receive case, like Agree-based approaches need, making for a more elegant model. However, the stipulation is shifted to the very need of a mechanism that resolves a competition between unmarked DPs.

Other than the stipulated dependent case rule, nothing in the grammar requires such a phenomenon to exist. This has been addressed from functional angles, where the argumentation line is that the role of dependent case is to help maximize the distinction between potentially interchangeable DPs, contributing to a more efficient processing (Baker 2015).

In this regard, dependent case is different from other structural case theories like Agree in that the morphological realization of case is not a by-product of an existing syntactic relation, but an addition to the syntactic system with the specific goal of expliciting the c-command relation between two DPs.

Dependent case can also be examined more genrally as a mechanism in a generative theory of syntax. In that light, dependent case has as much descriptive adequacy as it lacks explanatory adequacy (Chomsky 1965). It is a powerful tool when it comes to generating the linguistic phenomena that we observe. However, both the requirement of case-marking one of the two competing DPs at all and what constitutes a case domain need to be stipulated for each language. In other words, a dependent case rule has little predictive power outside of the specific language for which the rule is established, and it does not provide a principled explanation for the phenomenon within the model of grammar.

5.2.3 Structural case: summary

Structural case differs from non-structural case in being conditioned by the clausal configuration and the derivational process. Knowing the derivational history of a DP is enough to predict what case it will surface with, unlike the more sui generis non-structural cases.

In structural case, movement can both feed or bleed case assignment. One of the mechanisms overviewed in this section relies on an independently existing relation, Agree, while dependent case requires an additional mechanism, the case assignment rule. In both approaches, functional heads play a role in case assignment, either by being case assigners themselves, by assigning the features spelled-out as particular cases, or by defining the dependent case domain.

5.3 Nominative and ergative in classic Jê

Panará presents both convergences and divergences with the rest of the Jê languages in its case marking patterns. This section will begin with a look at the classic Jê case system, particularly in Kaingang (Southern Jê), Kĩsêdjê (Northern Jê) and Mẽbêngôkre (Northern Jê).[8] From there, I move on to a theory of Panará case.

In chapter 3 (§3.5), an overview of case exponence in the ten extant Jê languages showed some known generalizations, namely the existence Jê case positions, where the core cases are assigned to immediately preverbal DP positions, and the marked case (nominative or ergative) can be assigned to unmarked case DPs (canonically accusative or absolutive) if they are removed from the case position (372).

(372) a. *Kaingang*
ãmẽn lɔ ti tɛ̃ŋ wã
path along 3SG go.LG STV
'He went along the path.'
(Urban 1985: 172)

ti tõ ãmẽn lɔ tɛ̃ŋ wã
3SG ERG path along go.STV STV
'He went along the path.'
(Urban 1985: 172)

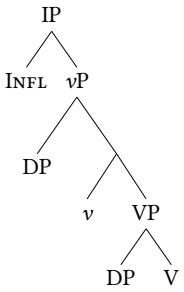
b. *Kĩsêdjê*
ire pa khu mã i= kapẽrẽ mã
1SG.ERG 1SG.NOM 3SG.ACC DAT 1SG talk.LG FUT
'I will talk to him myself.'
(Nonato, p.c., 3/2017)

In Kaingang (372a), the single argument of intransitive *tẽŋ* 'to go (long form)' receives ergative case marking if it surfaces to the left of an adjunct. In Kĩsêdjê (372b), two emphatic pronouns surface with different cases, nominative (in *ba*) and ergative (in *ire*).

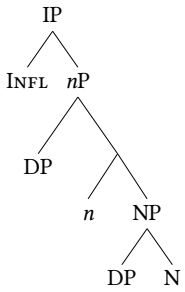
8. The choice of Kaingang and Kĩsêdjê, despite me not having any primary data from these languages, is due to the relative amount of information available, and to how visible the exponence of marked cases is. In a language like Mẽbêngôkre, the lack of morphological case marking beyond the indexation of case on pronominal forms muddles the identification of the case received by lexical DPs.

I take the existence of Jê short and long forms to be indicative of the lower structure of the clause. Following previous analyses (Nonato 2014; Salanova 2007) I assume that the short form is verbal and the long form is nominal, with the following clausal structures (373).[9]

(373) a. *Short verb clause*



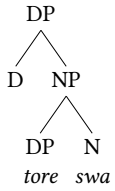
b. *Long verb clause*



The lower architecture of the Jê clause, specifically of the nominal long form verb clause (373b), captures the parallelisms between nouns of inalienable possession and long form intransitive verbs. In both cases, an unmarked absolutive argument DP is selected as the complement of N, exemplified for Kĩsêdjê in (374,376).

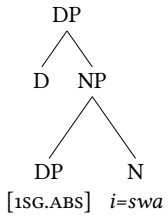
(374) a. *Inalienable possession*
[[tore] swa]
father tooth
'The father's tooth.'
(ISA 2012: 30)

b.



(375) a. [[i=] swa]
1SG.ABS tooth
'My tooth.'
(ISA 2012: 30)

b.

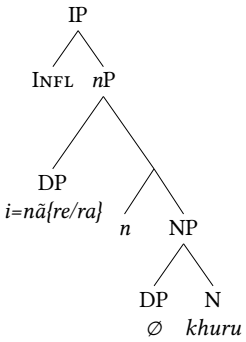


9. In the nominal construction, the *n*P projection is the nominal parallel of *v*P in verbal constructions.

(376) *Intransitive long verb*

a. Hẽn ∅ [i= nã {re/ra /*∅ } ∅= khuru]
FACT 3SG.NOM 1SG.ABS mother ERG NOM 3SG.ABS eat.LG
khãm s= õmu.
INES 3SG.ABS see.SH
'He/she saw my mother eating.'
(Nonato 2014: 4)

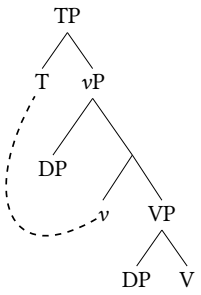
b.



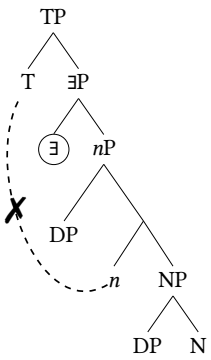
In what follows I discuss the reasons for considering that an inflectional category is always present in main clauses, even in so-called non-finite clauses. I will also argue that finiteness (and non-finiteness) should not be conflated with verbality (and nominality). As we will see, in classic Jê dependent clauses the syntactic structure can be considered to be smaller than in main clauses.

It has been proposed that the alignment split in Mẽbêngôkre is the result of an interaction between T and *v* (Coon & Salanova 2009). In short verb clauses, T and *v* are local enough that they (admittedly, one of the two heads) assign a special case. This is nominative case. In long verb clauses, an existential functional projection ∃ intervenes between T and *n*. Isolated from T, *n* is left with a last resort case to assign to its specifier, ergative case. The two structures are depicted below (377).

(377) a. *T-v assign nominative*



b. *n assigns ergative*



This is not a completely satisfactory explanation, as we are about to see. Salanova (2011a) presents some diagnostics that support the nominal analysis of long form verbs in Mẽbêngôkre, focusing on relative clauses. The more formal diagnostics are (a) the observation that TAME particles (irrealis *dja*, hearsay evidential *me*) cannot occur, and (b) clausal positions on the left edge, including Focus, are also unavailable (378).

(378) a. Kukryt nẽ ba arỳm ku= bĩ.
tapir NFUT 1SG.NOM already 3SG.ACC kill.SH
'I killed *tapir*.'
(Salanova 2011a: 53)

b. (*kukryt) (*nẽ) (*ije) arỳm ije ∅= bĩn.
tapir NFUT 1SG.ERG already 1SG.ERG 3SG.ACC kill.LG
'… that I killed tapirs.'
(Salanova 2011a: 53)

In (378a) above, *kukryt* 'tapir' occupies the emphatic position. This is the position in which, if it were a pronoun, the nominative paradigm would surface (379).

(379) Ga nê ba a= omũ.
2SG.NOM NFUT 1SG.NOM 2SG.ACC see.SH
'I saw *you*.' (el)

However, in Mẽbêngôkre the accusative paradigm is made up of weak pronominals that cliticize on the verb. Since these clitic pronouns cannot occur separate from the verb, attibuting a specific case to *kukryt* in (378a) based on the case of the pronoun that can left-dislocate risks of being circular. Still,

in languages where all DPs are case-marked, this position does receive the marked case—nominative in verbal clauses.

The reduced left peripheral positions in (378a) do suggest that some structural content available in main clauses is missing in relativeclauses. As per Salanova's proposal the missing element is T, associated with finiteness and the TAME positions that are not licensed in relative clauses, and therefore a different case-marking system is put in place. In Kĩsêdjê, Nonato (2014: 5) points out that the modal particles obligatory in main clauses are ungrammatical in embedded clauses (380).

(380) *(Hẽn) wa [(*kôt) a= thẽm] mba.
FACT 1SG.NOM INF.FUT 2SG.ABS fall.NF know
'I know you (*may) fall.'
(Nonato 2014: 5)

However, we know that neither long verbs nor ergative case-marking are exclusive to dependent or relative clauses in classic Jê languages. In Mẽbêngôkre, the reduced functional properties actually appear to belong to dependent clauses rather than long verb nominal clauses (381).

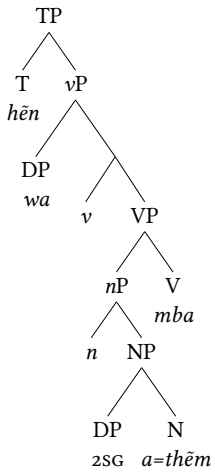
(381) a. (*kukryt) (*nẽ) (*ije) arỳm ije ∅= bĩn.
tapir NFUT 1SG.ERG already 1SG.ERG 3SG.ACC kill.LG
'… that I killed tapirs.'
(Salanova 2011a: 53)

b. Krwỳj jã nẽ kute mop krẽn.
parakeet DEM NFUT 3SG.ERG malanga eat.LG
'This parakeet has eaten malanga (once in his life).'
(Salanova 2007: 105)

As seen in the two sentences above, the unavailability of left peripheral and TAME positions in classic Jê is connected to a certain clause type (relative or dependent clauses), rather than a consequence of the form of the verb or the nounness of the predicate. Based on the available evidence, I argue that classic Jê relative clauses are *n*Ps (382).

(382) a. *(Hẽn) wa [(*kôt) a= thẽm] mba.
FACT 1SG.NOM INF.FUT 2SG.ABS fall.NF know
'I know you (*may) fall.'
(Nonato 2014: 5)

b.



I make no claims concerning a more fine-grained functional structure inside the *v*P or the *n*P. For the purposes of establishing a clausal structure that covers all the positions and relations necessary to analyse case, this level of detail in clausal articulation suffices.

Seeing the Mẽbêngôkre data in (381), a connection between T and *v*/*n* is out of the question as a source of the ergative-accusative case split, and thus an alternative needs to be put forward. Instead, I propose a theory of case for classic Jê languages, based on the Agree stacking model (§5.2.2.1.1). But before addressing how Jê case is derived, we will see how it is not by examining the dependent case and inherent case approaches.

We have seen that an absolutive constituent such as the single argument of an unaccusative nominal long verb surfaces with ergative case when its position is on the left periphery of the clause. This shows that Jê case systems are not a good fit for an inherent case approach, according to the mechanism that assigns inherent case (§5.2.1.2). In that respect, the ergative case received by emphatic absolutives (383b) is similar to the raising to ergative phenomenon reported for Shipibo and Nez Perce (Deal to appear).

(383) *Xokleng*

a. ãmẽn lɔ ti tɛ̃ŋ wã
path along 3SG go.LG STV
'He went along the path.'
(Urban 1985: 172)

b. ti tɔ̃ ãmɛ̃n lɔ tɛ̃ŋ wã
3SG ERG path along go.STV STV
'He went along the path.'
(Urban 1985: 172)

If ergative in Xokleng were an inherent case assigned together with a thematic role to the specifier of *v*P (or, in this, case possibly *n*P), ergative case would not appear on the argument of an unaccusative verb like *tɛ̃ŋ* 'to go.'

Dependent case (§5.2.2.2) also mispredicts the phenomenon in (383). The adjunct *ãmɛ̃n lɔ* 'along the path' is a PP. Since case-marked and oblique participants are not taken into consideration for the application of a dependent case assignment rule, in (383b) there is no case competitor that justifies assigning dependent case. Thus, the ergative on *ti* is completely unexpected. A modification of the dependent case rule to include adjunct participants would overgenerate ergative DPs and, contrarily, it would be incapable of capturing instances of an ergative-marked emphatic absolutive DP when there is no adjunct in the clause.

Since the Jê marked cases, nominative and ergative,are associated with particular syntactic positions, it would seem that the derivation of case via an Agree mechanism has more potential. This is strengthened by the parallel with the phenomena in Nez Perce (Deal 2010) and Amahuaca (Clem 2017), which as we have seen can be derived via an Agree mechanism involving multiple heads. The key difference is that in Jê languages the arguments of non-transitive verbs also surface with ergative case when left-dislocated.

I propose that Jê absolutive and accusative, the unmarked cases, correspond to a lack of case altogether. That is, in Jê languages the absence of marked case exponence on DPs and/or pronouns reflects a lack of any case features (Kornfilt & Preminger 2015). It has been argued that unmarked cases that are found on DPs selected by lexical categories such as adpositions or nouns should be considered caseless (Legate 2008), as is the case of Jê accusative and absolutive.

Turning to the marked cases, emphatic nominative case presents two different behaviours. In one of them, nominative is the case with which DPs on the left periphery surface in verbal short-form clauses, and ergative is the equivalent in nominal long-form clauses. Southern and Central Jê languages appear to have this type of nominative case. This is what I consider to be akin to clitic left dislocation (Cinque 1990; Rizzi 1986, 1997),

In other languages, like Mẽbêngôkre or Kĩsêdjê, there appear to be subdivisions in the left periphery for nominal clauses. An ergative argument can nev-

ertheless be mapped to a nominative pleonastic or emphatic pronoun (384).

(384) ba ijɛ ∅= ir
1SG.NOM 1SG.ERG 3SG.ABS put.down.LG
'I put it down.'
(Salanova 2007: 35)

The left-doubled position where *ba* appears in (384) is not properly emphatic (Salanova 2007: 35), but rather a pleonastic position. Focus is associated with a position even further to the left, occupied by the first ba in (385).

(385) ba nẽ ba ijɛ ∅= ir
1SG.NOM NFUT 1SG.NOM 1SG.ERG 3SG.ABS put.down.LG
'*I* put it down.'
(Salanova 2007: 35)

The presence of nominative pronouns in nominal clauses was also noted by Nonato (2014) in Kĩsêdjê (386).

(386) mbry ká kangô kãm na [wa ire hwĩ sy ngrá
animal skin juice LOC FOC 1SG.NOM 1SG.ERG wood seed dry
kuru] mã
eat.NF FUT
'It's with milk that I will eat my cereal.'
(Nonato 2010: 2)

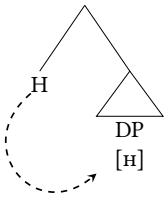
The nominative pronoun to the right of the TAME position can duplicate an ergative or absolutive DP, and can be further duplicated in the proper left periphery zone with an ergative pronoun. This subdivision is sketched in the revised clause schema in (387).

(387) *Nominal long verb clause*

preverbal area					verb complex
emphatic	TAME	pleonastic	ERG	ABS	[cl= | verb]

I would like to propose the following. In classic Jê languages, absolutive and accusative DPs are not case-marked, which means that they do not participate in what could be called a case assignment relation. This relation is a type of Agree DP-head relation between an argument constituent and one or more functional heads. Rather than formalizing case marking as DPs carrying a case feature that needs to be valued for a specific case, morphological case is the morphological exponence of a DP-head relation (388).

(388) a.



b. [H] ↔ <case>

In Xokleng (389), absolutives that raise above *v*P in intransitive clauses receive ergative case. However, such DPs have the option of staying in a lower position in the clause with no ergative case. In a standard Agree approach, probing by a funcional head followed by A-movement of the DP to a local position with said head is not an option: such an operation is driven by the stipulated need to check uninterpretable features in order to prevent the derivation from crashing (§5.2.2.1).

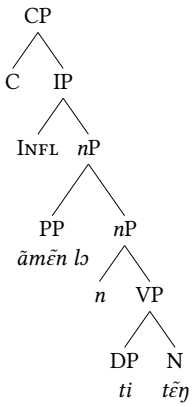
Since PP adjuncts sit above the *v*P/*n*P level (390c), we may take the position of the raised-to-ergative DP corresponds to a left-periphery position. Since Urban (1985: 172) indicates that "there is a general correlation between initial position and emphasis," the position of the left-moved DP corresponds to Focus or similar positions that we linked to a broad CP projection. There are now two options: ergative in the raised DP expones a [C] feature on the DP, or else it expones the feature of a different, lower functional head across which the DP has moved before raising to C.

It has long been proposed that such successive-cyclic movements are required for long-distance movement (Chomsky 1973, 2000, 2001; Rackowski & Richards 2005). Since external arguments receive ergative case in their base position, the most parsimonious approach is to link ergative case to the exponence of [*n*] rather than [C]. A further reason to adopt this view connects with the discussion about dependent clauses in classic Jê languages, earlier in this section, where we saw that dependent clauses most likely lack an articulated or active CP layer, if the lack of rightward DP positions is a reliable diagnostic.

(389) [*n*] ↔ tɔ̃

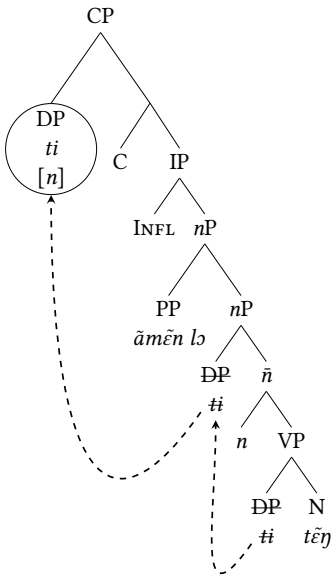
(390) a. ãmɛ̃n lɔ ti tɛ̃ŋ wã
path along 3SG go.LG STV
'He went along the path.'
(Urban 1985: 172)

b.



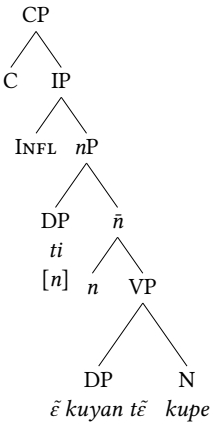
c. ti tɔ̃ ãmɛ̃n lɔ tɛ̃ŋ wã
3sg erg path along go.stv stv
'He went along the path.'
(Urban 1985: 172)

d.



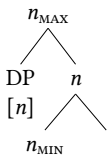
Thus, the presence of ergative case in a Xokleng transitive nominal clause can be tied to the same source, namely a *n* feature on the DP. In an intransitive clause, a right-dislocated DP acquires a [*n*] feature from *n* after moving through *n*P, while an external argument generated in *n*P acquires the [*n*] feature upon merge (391).

(391) a. ti tõ ɛ̃ kuyan tɛ̃ kupe wã
3SG ERG his body DEF wash STV
'He is washing his body.'
(Urban 1985: 172)

b.


The mechanism whereby a DP acquires a functional head feature is simple to formalize. In a complement-head position, c-command by the head is straightforward. In what would be a classic spec-head configuration, in a Bare Phrase Structure approach (Chomsky 1994) c-command by the functional head also follows naturally. In this approach, the label of the entire phrase is the head itself: X=X_{MIN}, XP=X_{MAX}, and $\bar{X}$=X. The node notated as XP in this dissertation is interchangeable with the maximal projection of the category that labels the phrase, and the node notated as $\bar{X}$ is X.

In the Xokleng examples discussed above, the DP merged as a sister to $\bar{n}$ is actually c-commanded by *n*, which has all the properties of n_{MIN} with the only difference that it is an intermediate projection, which is a function of the derivation. A sisterhood relation (closest c-command) is therefore enough to assign the [*n*] feature to a given DP (392).

(392)


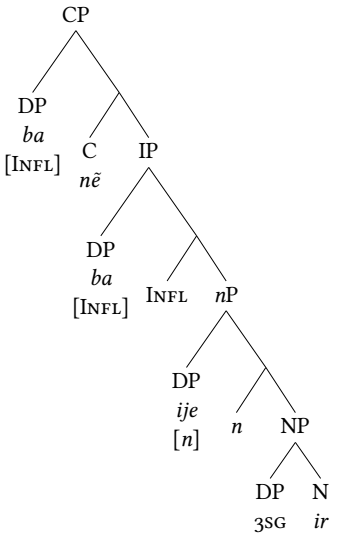
Beyond the exact mechanism of feature assignment, it is hopefully clear that the relevant notion is that the DP in question is in a dependent relation with a selecting functional category. This mechanism is not dissimilar in concept to the Agree-derived case seen above (§5.2.2.1), the main difference being that

rather than being driven by the probe-goal system of checking unvalued features, a DP is automatically the target for a functional category feature if it is in direct c-command with it—that is, in a sisterhood relation, be it in the complement or specifier positions. The notion of dependency discussed here is not the same as the Marantzian dependent case (§5.2.2.2), but rather a hierarchical dependency: when two syntactic objects are merged, the selecting or projecting object is the head, and the selected object is the dependent.

In the Northern Jê languages with pleonastic and emphatic nominative positions, one extra functional head needs to be involved. Since pleonastic nominatives are not informationally salient as a Focus the way emphatic nominatives are and appear to the right of TAME words, a different category than C appears to be involved. This category is the INFL functional head (§5.1) as seen in (393).

(393) a. ba nẽ ba ijɛ ∅= ir
1SG.NOM NFUT 1SG.NOM 1SG.ERG 3SG.ABS put.down.LG
'*I* put it down.'
(Salanova 2007: 35)

b.



Three case allomorphs are involved in nominal clause environments in classic Jê languages, with a possible subdivision between the Northern Jê branch and the rest based on nominative case positions. The two marked cases, nominative and ergative, correspond to functional features on DPs. Both absolutive and accusative are a lack of such spelled-out features.

(394) a. NOM ↔ [INFL]

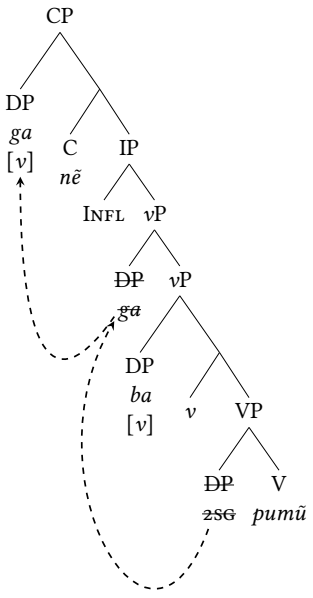
b. ERG ↔[*n*]

c. ABS/ACC ↔ [–]

Verbal clauses, with short verbs, can be approached in a similar fashion. The existence of unaccusative and unergative intransitive verbs mirrors the two positions where a DP can be merged in the verb phrase: as a dependent of VP or as a dependent of *v*P. Arguments of unaccusative verbs, merged to V, do not receive the [*v*] feature. Instead, the [*v*] feature is exclusive of the external arguments of transitive verbs and, in the languages that distinguish syntactically between subclasses of intransitives, of the arguments of unergative verbs. Thus, in classic Jê languages [*v*] corresponds to the marked nominative case.

(395) a. Ga nẽ ba a= pumũ .
2SG.NOM NFUT 1SG.NOM 2SG.ABS see.SH
'I saw *you*.' (el)

b.



The nine similarly-behaved classic Jê languages present a pattern of case marking that closely ties the surface position of DPs with the case that they receive. I have surmised that this pattern of case marking bears characteristics of structural case. Specifically, I propose that unmarked cases, namely accusative and absolutive, do not exist, and that the two existing cases, nominative and ergative, present structural case characteristics.

Earlier in this section we saw that the mapping of case positions in Jê languages, reminiscent of case phenomena in Nez Perce (Deal 2010) and Amahuaca (Clem 2017), cannot be predicted with a dependent case approach that works with a straightfoward application of the mechanism. An Agree stacking approach, wherein the case marked on a DP is the exponence of a dependency relation established with a functional category in the course of the derivation, manages to capture the Jê case marking with its reliance on clausal positions. In verbal clauses, DPs can receive nominative case by entering in such a relation with v and in doing so acquiring a [v] feature, which will be spelled out as nominative. In nominal clauses, a similar relation between a DP and n will provide a [n] feature, spelled out as ergative case. When arguments in a nominal clause appear in left-peripheral positions they do so by entering a relationship with Infl, yielding nominative case at spell-out.

5.4 Ergative in Panará

In chapter 3 I presented a description of case exponence in Panará (§3.4). Unlike the contexts that license nominative and ergative in classic Jê languages, discussed in §5.3, in Panará the marked case, ergative case, cannot be described as a function of a particular position in the clause. Instead, ergative case is observed in the contexts in (396).

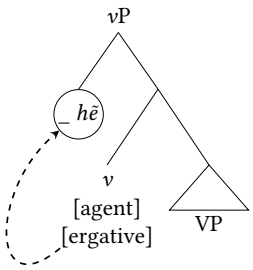
(396) *Contexts that license ergative case in Panará*

a. The highest argument in transitive constructions
   –Transitive two-place verbs
   –Transitivized intransitive verbs

b. No reliance on a thematic role

The conditions under which Panará ergative case is licensed do not align with the distribution expected of inherent case (Coon 2013; Legate 2012; Woolford 2006), assigned along with an agentive thematic role to DPs base-generated in Spec,*v*P.

(397)



A crucial diagnostic of inherent case is the independence of said case from structural operations, as seen in §5.2.1.2—a Scandinavian dative subject retains its dative inherent case in passive constructions. Although in Panará we cannot observe a situation in which an absolutive participant raises to ergative case, the restriction on extraction of ergatives from relative clauses offer the opposite case, a loss of ergative case.

If Panará ergative case were an inherent case assigned with a thematic role upon merge with *v*, the prediction would be that the ergative DP would always maintain its ergative case. What we observe in that raising-like construction (398) is the opposite, as that DP surfaces without ergative case morphology on the upper clause.

(398) Joopy rê= tân= s= anpun [*e* ti= pĩri kôôtita].
jaguar 1SG.ERG COM 3SG.ABS see 3SG.ERG kill chicken
'I saw *the jaguar* that killed the chicken.' (el)

Considering these Panará data, ergative case appears to be much more structural than non-structural. It does not rely on the assignment of a particular thematic role and, even though there is no raising to ergative like in classic Jê languages, it is possible that extracted ergative DPs surface without ergative case when extracted from their origin clause.

For all these reasons, a structural case mechanism suits Panará ergative much better than inherent case. A dependent case approach, on the one hand, is able to faithfully capture the distribution of ergative case in Panará. A dependent case rule in line with Baker (2014) could be the following:

(399) Mark a DP with ergative case…
If said DP c-commands an argument DP, caseless or caseful, in the same *v*P

The only descriptive objection to the predictions of such a rule is that a limited class of Panará transitive verbs have oblique internal arguments, rather than absolutive ones (§5.1.4). In such cases, dependent case would not predict the presence of ergative case on the external argument.

On the other hand, as descriptively satisfactory as (399) might be, this rule does little beyond restating the conditions of well-formedness of Panará ergative case in (396). In other words, generating Panará ergative case as a dependent case is not explanatory to the extent that we do not learn anything about the actual linguistic pressure that provided such a case system in the language.

What follows is an attempt to expand the case assignment mechanisms explored for classic Jê languages in the previous section and apply them to derive Panará ergative case. Classic Jê languages present a structural case, nominative case, which corresponds to the morphological exponence of a dependency between a DP and a *v* functional category, as evidenced by nominative case being present on external arguments, both in transitive and intransitive verbs. In nominal clauses, instead, ergative case corresponds to a similar dependency with *n*. Given the lack of nominalized clauses in Panará, what is unexpected is not so much that there is no case marking split, but that the one marked case present in Panará is not nominative, associated to verbal clauses in classic Jê, but instead ergative.

The answer is that, in Panará, ergative case does not correspond to classic Jê ergative case. The ergative case present in the family, associated with

nominal clausal environments, vanished when nominal clausal environments did. Only some fossils of Jê ergative are left in Panará, specifically in the first person pronoun (400).

(400) *Jê first person pronouns*

a. *Xavante*
wa (NOM)
wa-te (ERG)

b. *Mẽbêngôkre*
i (ABS/ACC)
i-je (ERG)

c. *Apinayé*
ic (ABS/ACC)
ic-te (ERG)

d. *Kĩsêdjê*
i (ABS/ACC)
i-re (ERG)

e. *Timbira*
i (ABS/ACC)
i-te (ERG)

f. *Panará*
inkjẽ (ABS)
inkjẽ hẽ (ERG)

The functional and structural motivation for a diachronic development of Panará case marking is well beyond the scope of this dissertation. Still, the comparative method can show us that the Central and Northern Jê ergative morpheme is observable in the unmarked Panará first person pronoun.[10] However, it does not have an ergative value, it is instead frozen after becoming lexicalized as part of the first person independent pronoun root. A new ergative morpheme, *hẽ*, is instead used as the exponent of ergative case on top of the old Jê ergative. It is plausible that the high functional load of nominalizations in Jê languages, with the ergative case marking associated to them, shifted the case alignment in verbal clauses from an accusative one (with a structural nominative case) to an ergative one (with a structural ergative case).

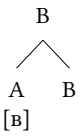
The shape of Jê first person pronouns constitutes a small diachronic trace of the reanalysis of the Jê case system that took place in Panará. Syncronically, Panará ergative case is the equivalent of classic Jê nominative. It is a case assigned in the context of verbal clauses, just like classic Jê nominative is, and both cases are also the morphologically marked ones.

Here I take the Agree mechanism discussed so far one step further. I will instead take the notion of case as merely encoding dependency and apply it to the *v*P architecture that we saw in the classic Jê case discussion. If a category is B in (401), it is the head selecting a dependent and projecting B's category.

10. Not applicable to the current form of Southern Jê ergative morphology.

If a category is A, it is syntactically marked with a [B] feature as a dependent of B.

(401)

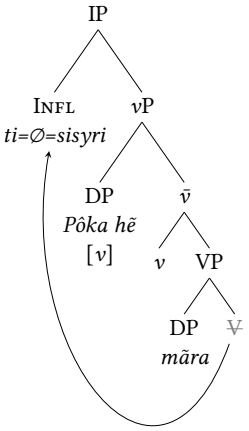


The mechanism boils down to the syntax keeping a record of what categories a constituent is a dependent of or, in other words, what constituent is merged to a projecting head. Going back to Panará, absolutive DPs are unmarked for case. Ergative DPs receive a [*v*] feature from being merged to the projecting head $\bar{v}$ (402).

(402) a. ERG ↔[*v*]
ABS ↔ [–]

b. [[verb complex] [$_{vP}$ DP_{ERG} *v* [$_{VP}$ DP_{ABS} V]]]
Ti= ∅= sisyri Pôka hẽ mãra.
3SG.ERG 3SG.ABS hit Pôka ERG 3SG
'Pôka hit him.' (el)

c.



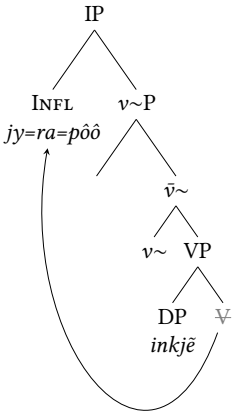
In the example above, the external argument *Pôka* receives a [*v*] feature from being a dependent of $\bar{v}$, a feature that is spelled out as ergative case at the stage of lexical and morphological insertion. In contrast, the internal argument *mãra* 'he' is not marked for case.

With intransitive verbs (403), lack of an external argument merged in the transitive *v* projection removes the context for the assignment of the ergative case [*v*] feature, deriving the caseless absolutive argument of intransitives.

(403) a. ABS ↔ [–]

b. [[verb complex] [$_{v\sim P}$ *v*~ [$_{VP}$ DP_{ABS} V]]]
Jy= ra= pôô inkjẽ.
INTR 1SG.ABS arrive 1SG
'I arrived.' (obs)

c.



This theory of Panará case makes the prediction that unergative intransitive verbs should bear ergative case if the notational distinction between transitive *v* and intransitive *v*~ does not affect the assignment of a [*v*] feature. As discussed earlier in this chapter (§5.1.4), in Panará no subclasses of intransitive verbs exist. All intransitive argument DPs surface in the unmarked absolutive form. This is compatible with the case system exposed here. Since to all available evidence Panará intransitives are all unaccusative-like in their syntax, whether a [~*v*] feature would be spelled out as ergative case in Panará is most likely impossible to test.

5.4.1 Structural case as dependency

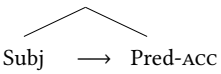
The overview on structural and non-structural case mechanisms in this chapter (§5.2), especially when applied to ergative case languages, reveals that defining criteria for such distinct types of case assignment sometimes rely on minor distinctions. For ergative case, an approach to inherent case that leaves thematic role discussions aside is virtually indistinguishable from a structural case approach but for the fact that inherent case is predicted to present case preservation. However, once this property has been challenged for ergative case on multiple counts (Baker 2014; Deal 2017), inherent case becomes essentially a structural case, as case assignmentc can be fed by movement. The remaining properties of an inherent ergative case are virtually impossible to distinguish from those of a structural ergative case, and ergative becomes the equivalent of a structural accusative case: it would be assigned to the DP merged with $\bar{v}$ as the specifier of vP.

The Agree stacking approach proposed by Deal (2010) introduces a broad approach to Agree as a mechanism that maps a locally constrained syntactic relation, rather than a mechanism to derive agreement. As such, it arguably falls within the range of non-agreement phenomena that piggy-back on the established Agree mechanism (Preminger 2012). The closest c-command with feature valuation relation that derives case in such a system can be restated as a local dependency relation to identical consequences.

The notion of case as encoding a dependency, beyond the dependency relation between two constituents in dependent case, is not a new idea. Yip, Maling & Jackendoff (1987) proposed that case is associated to DPs with mechanisms similar to how suprasegmental features are associated with skeletal points in the phonology. The variation between ergative and accusative languages is a right-to-left or a left-to-right assignment rule of N(ominative) and A(ccusative) in clauses with just one DP to receive case.

More recently, Zwart (2006) explores an approach to accusative case as encoding a dependency relation between the subject and the predicate, morphologically realized inside the predicate (on the object):

(404)



Without considering here the accuracy of the predictions made with such a mechanism, it requires the assumption that the subject takes the predicate as its dependent, and it establishes the subject as a primitive in the theory. Here

I make a conscious decision to not adopt the concept of subject other than as a cluster concept made up of a series of autonomous properties (Keenan 1976).

These ideas of case, especially the Jakobsonian case in Zwart (2006), reveal theories of case that make more explicit the triangulation of the case-receiving constituent based on two other points in the syntax. In that regard, all structural case-assignment theories are deep-down rather geometrical: given two syntactic objects, the syntax is able to determine a third one and assign a case to it. In non-structural case approaches, the position of the case-receiver is fixed by stipulation: the element that merges with the case assigner at a specific point in the derivation, e.g. the complement of a P head, or the specifier of a *v* head.

In structural case approaches, functional categories play a crucial role in pinning down the location of the case-receiver. In dependent case, it is a functional category that demarcates the case domain, and therein a DP is necessary to establish the relative position of another DP, the case-receiver.

In standard Agree approaches, functional categories are used as probes, constraining the position of the case-receiver in equivalent terms to dependent case theory. Phase theory does in principle play a role in restricting the locality of Agree, although most approaches remain agnostic as to what constitutes a phase, or outright ignore it. The claim that DPs are phases should be a problem for a standard Agree probe being valued by a goal inside a DP, as well as *v*P and even CP with long-distance agreement.

The approach that I adopt in this chapter to propose a theory of case for Panará modifies slightly the Agree stacking mechanism in Deal (2010) and Clem (2017) by reducing it from a formalized agreement relation, Agree, to a more primitive dependency relation. Thus, the structural case observed in Nez Perce, Amahuaca or Panará is not the result of a licensing operation like Agree. Case is simply the morphosyntactic reflex of a syntactic relation, dependency, that exists as a function of the syntactic derivation itself.

One last issue is the existence of functional category features on selected constituents, such as a [*v*] feature on a DP that is a dependent of a *v* head. This is the local equivalent of allowing the mechanism responsible for lexical and morphological insertion access to the syntactic structure of the clause and its derivational history: being able to see the surface position of a constituent and its traces, and inserting the available exponents of such relations. However, a mechanism with access to this level of information of the syntactic derivation should be resolved in the narrow syntax, rather than in a post-syntactic stage as vocabulary insertion is usually considered to be (Preminger to appear). Al-

lowing a post-syntactic stage this much access to the narrow syntax is arguably equivalent to claiming that there is no relevant distinction between the narrow syntax and post-syntactic stages.

Representing local dependency via the assignment of category features avoids this impasse by providing the insertion mechanism with a shallow representation of the derivational history of a given constituent. Unlike the valued–unvalued feature pairs that drive the Agree operation, the existence of such features in the syntax does not require a stipulation for their presence. In a syntactic system like the one proposed by Zeijlstra (2017), categorial features are used to drive the derivation and resolve the labelling of phrases by projecting categories. In such a system, the presence of features of a selecting category on the dependent constituent are postulated in the syntax for independent motivations.

CHAPTER 6

Deriving polypersonalism

In this chapter I propose a derivation of one of the polysynthetic properties of the Panará verb complex, namely the cross-reference of multiple participants. In chapter 5 I looked at Panará case marking within the Jê family with a generative approach. In the theory of case proposed there, morphological case is not the exponence of a licensing relation, but rather the exponence of dependencies established between constituents and functional categories during the derivation. In order to accomplish that, it was necessary to establish a basic clausal structure for Panará, in which the verb raises to Infl and postverbal constituents present a canonical ergative-absolutive order, an order which in actual speech is often altered due to Ā movement and null ellipsis.

This chapter focuses on the agreement relations in Panará and, more generally, on the cross-reference of participants. First, I resume the description of the Panará polysynthetic verb complex (§4). Next, I propose a derivational approach to the extensive Panará polypersonalism and its characteristics. Finally, I look back at the peculiar cross-reference morphology in irrealis mood (§3.4.2.4) and propose an analysis of participant features and morphological insertion that unifies the exponence of participants of both realis and irrealis moods.

6.1 Panará doubling as head movement

Panará verbs are nested inside a complex morphological unit that I descriptively call the verb complex. The clitics that constitute the verb complex are ordered in strictly positioned slots, represented in table 6.1.

Position	Slot	Function
Proclitic	1	mood
	2	ergative
	3	second person number
	4	reciprocal, reflexive
	5	iterative, direction
	6	dative
	7	postposition
	8	dual
	9	noun, classifier, dative
	10	absolutive
Verb	11	one—or more, in a serial construction

Table 6.1: Major parts of the Panará verb complex.

Even though the notion of clitic is sometimes used as a distinct morphosyntactic category, in this dissertation I use "clitic" as a descriptive cover term for a series of word-like elements that are phonologically attached to a host, including pronominal clitics (D-clitics) but also modal clitics and adpositional clitics (P-clitics), in the case of Panará.

In the previous chapters (ch. 3, ch. 4), I have presented evidence that suggests a connection between the verb and a higher functional position in which the verb surfaces with mood and participant morphology (§5.1). We have also seen that an applicative-looking phenomenon with no valency alteration, P-doubling, is in play with some adjunct PPs (§4.2.1). In this section, I retake the notion that the landing position for the Panará verb corresponds to a functional category Infl, most likely related to mood, and that this results from a type of Agree relation between Infl and the verb phrase. The same phenomenon is also responsible for the continuum of postposition-doubling constructions (§4.2).

The puzzle posed by the data on Panará PPs (§4.2.1) is the alternation between doubling PPs and static PPs (405). Doubling PPs, like malefactive *pêê*, allow for the adposition to appear inside the verbal complex, as well as

an absolutive clitic that agrees with the P-object. Static PPs, like ablative *pêê*, cannot double at all inside the verb complex.

(405) a. Jy= ra= pêê= a= ty inkjẽ pêê.
INTR 1SG.ABS MAL 2SG.ABS die 1SG MAL
'You died on me.' (el)

b. Sâkjo jy= ∅= (*pêê=) ∅= pôô aty pêê.
Sâkjo INTR 3SG.ABS ABL 3SG.ABS arrive forest ABL
'Sâkjo arrived from the forest.' (el)

The complete inventory of Panará postpositions that have proven to behave reliably as either P-doubling or static PPs is repeated in table 6.2.

P-DOUBLING	STATIC
comitative *kõõ*	ablative *pêê*
comitative-locative *tân*	adessive *rahã*
instrumental-comitative *ho*	allative *tã*
malefactive *pêê*	inessive *amã*
perlative *kõõ*	locative *rĩ*
purposive *suu*	

Table 6.2: P-doubling and static postpositions.

In this section I approach the two types of Panará PPs by adopting the hypothesis that PPs that cannot P-double are frozen adjuncts, lacking the option of establishing an Agree relation with INFL. The PPs that can P-double with either the head of the PP (the P) or the head of its dependent (the D, that is, the absolutive clitic) are targeted by a feature-checking relation with INFL.

A similar situation could explain what has sometimes been called "functional clitics", like Spanish dative *le* or Catalan *li*. Dative arguments must be doubled by a clitic if they are animate or affected. In featural terms, these clitics would signal a functional category that is responsible for the licensing of a subtype of datives:

(406) *(Li) vaig cantar una cançó al mestre. (Catalan)
*(DAT) past.PRF sing one song the.DAT teacher
'I sang the teacher a song.'

Ablative/malefactive obliques in Panará provide a straightforward parallel to Romance dative clitics. With a general semantics of "away from," the feature-checked version that can P-double in the verb complex and leave the PP object stranded takes affected participants, as in (407).

(407) a. Tepantê jy= (*pêê=) pôô inkô pêê.
fish.agentive INTR (*ABL) arrive water ABL
'The fisherman arrived from the river.'

b. Kwakriti jy= ra= pêê= tyy inkjẽ (pêê).
spider.monkey INTR 1SG.ABS MAL die 1SG (MAL)
'My spider monkey died.'

It could be imagined that the relevant property that triggers the two readings of *pêê*, the ablative and the P-doubling malefactive, is animacy rather than affectedness. However, ablatives with an animate participant are still not licensed for doubling in the verb package, as seen in (408a), while a similar malefactive is in effect doubled (408b).

(408) a. Perankô pêê jy= (*pêê=) ra= pôô.
Perankô ABL INTR (*ABL) 1SG.ABS arrive
'I arrived from Perankô.'

b. Jy= ra= pêê= a= tẽẽ.
INTR 1PL.ABS MAL 2SG.ABS= leave
'You left against us [without consulting the community, or against their instructions].'

For instrumental-comitative *ho*, instrumentals appear to P-double always (409), while comitatives seem to present an animacy asymmetry: inanimate participants can P-double but the comitative object cannot appear stranded (410a), whereas animate comitatives are both P-doubled and stranded (410b).

(409) Nankãã rê= ho= pa-ri inkjẽ hẽ karijô *(ho).
snake 1SG.ERG INS kill-PRF 1SG ERG tobacco *(INS)
'I killed snakes with tobacco.'

(410) a. Mãra jy= (ho=) pôô sõ *(ho).
3SG INTR (INS) come food *(INS)
'He arrived with food; he brought food.'

b. Kamera jy= ra= ho= ria= tẽ inkjẽ kri tã.
2PL INTR 1SG.ABS INS 2PL.ABS run 1SG village ALL
'You-*pl* travelled with me to the village.'

The picture that emerges for the applicative-like continuum of Panará oblique participants (§4.2.1) is not very different from the Romance phenomena illustrated earlier with Catalan datives, where participants carry a specific semantic content when they are licensed for clitic-doubling. Beyond Romance and Panará, there are other languages that present applicative-looking constructions that could expand the typological scope of adpositional clitics. One such language is Otomí (Otomanguean), where so-called REGISTRATION CONSTRUCTIONS present very similar characteristics to Panará P-doubling as described by Hernández-Green (2016):[1]

> "Registration constructions index—or cross-reference—an extrathematic (i.e., non-core, non-term, peripheral) participant on the verb under certain discourse conditions, namely, extraction, focalization, or discourse continuity of said extra-thematic participant. They sometimes change the semantic role of the extra-thematic participant in the clause. Unlike applicatives, registration constructions do not promote the indexed participant, as it does not acquire Object morphosyntactic properties. Promotion is a core property of applicative constructions. Therefore, registration constructions have been neglected in typological accounts of applicatives, as they fail to promote the phrases they refer to."

Panará presents some evidence for domain opacity being related to feature-checking relations and for long-distance head movement on the part of the head of a phrase that enters in this type of relation with a functional head.

So far, what have been considered Agree relations bear little resemblance to the way agreement is commonly conceptualized as a linguistic phenomenon:

(411) **Agreement**
A variation in the form of a linguistic element as a function of the presence of another element

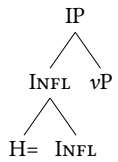
The "agreement" relations of Panará adjuncts, and between INFL and *v*P, could be said to not really be instances of what we consider agreement. It rather resembles more a relation of licensing, or introduction of syntactic elements. This departs from a standard Agree implementation (§5.2.2.1), in which goalness is determined entirely by the existence of a higher unvalued feature that will act as the corresponding probe. Rather, at least for the cases examined in Panará, it could be the other way around: syntactic elements that require

1. I would like to thank Zachary O'Hagan for bringing Otomí to my attention.

the contribution of featural content remain active, and transparency is either a requisite or a consequence of that. Data from Panará oblique participants support the notion that, despite a clear overlap, Agree and agreement correspond to an extent to separate syntactic operations (pace Preminger 2013).

My proposal to provide a derivational account of Panará P-doubling relies on a view of clitic-doubling as head movement, which requires an Agree relation with the head's phrase for the prasal head to be attracted to the cliticizing head Infl. This relation is subject to standard probing and locality constraints (Chomsky 2001), but since the head can skip landing positions and is attracted to a specific node, it is not subject to the Head Movement Constraint (Travis 1984). Thus, I do not adopt a "big DP" approach to clitic-doubling (as proposed by, among others, Nevins 2011). The mechanism of head movement that I adopt, other than its long-distance property, is a simple instance of movement of a syntactic head H via adjunction to Infl, as represented in (412), resulting in cliticization (Nash & Rouveret 2002). In Panará, both copies of the head can be pronounced, resulting in clitic-doubling.

(412)

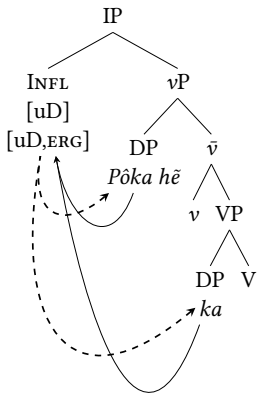


The head attraction mechanism proceeds as follows. A syntactic probe searches within its c-command domain (i.e. its sister) and finds a phrase. If this is formalized with a standard Agree approach, then Infl is equipped with a probe that searches a valued counterpart, which could be a categorial feature corresponding to a DP, [D], or to an adposition, [P]. Once Agree obtains and the [uD] or [uP] probe on Infl is valued, an Agree chain is established between the positions of the Infl head and the DP/PP phrase. The head of the phrase then is adjoined to Infl via post-syntactic head movement.

For both the ergative and absolutive DPs, a different probe is given. It is specified for ergative case for the ergative DP, [uD,erg] and unspecified for case for the absolutive DP, which lacks case (§5.4). This is illustrated in (413) for a transitive clause. A dashed line indicates probing, and a continuous line indicates head movement.

(413) a. Ti= k= anpun Pôka hẽ ka.
3sg.erg 2sg.abs see Pôka erg 2sg
'Pôka saw you.' (el)

b.



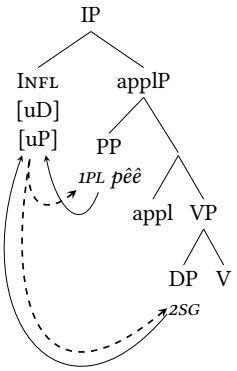
To obtain similar results for P-doubling, the distinction between Panará P-doubling PPs and static PPs becomes crucial. We saw that there are two broad categories of PPs: the ones that involve a relation-type semantics (malefactive, comitative) can P-double, while the ones that involve stative semantics (temporal, ablative, allative) are static.

However, under a standard Agree approach that is typically used to derive similar phenomena, the mechanism would hinge on Infl carrying the relevant probe only when the P-doubling output is desired, effectively limiting the formalization to a restatement of the phenomenon: in a clause with a malefactive PP, Infl would carry a [uP,mal] probe but there would be no [uP,abl] probe in a clause with an ablative PP.

The account of D-doubling described above places the trigger of cliticization into the derivation itself, rather than on unvalued features on a probe. The same mechanism can also account for the different types of Panará PPs. P-doubling PPs are introduced by an applicative projection at a point in the derivation of the clausal spine. Static PPs, on the other hand, are inserted at a late stage in the derivation, like other adverbial phrases (like negation *pjoo* 'sentential negator', or temporal NPs like *pykkôômã* 'tomorrow').

Late-inserted phrases are not probed by Infl and therefore not clitic-doubled, just like Ā-moved argument DPs in the left periphery are equally probed in their postverbal position before these late operations take place. Clitic-doubling of an applicative malefactive PP oblique participant is represented in (414).

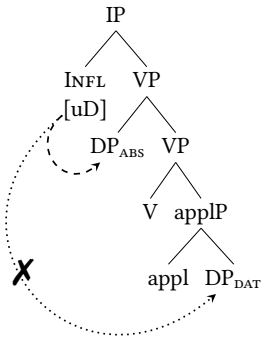
(414) a. Jy= ra= pêê= a= tẽẽ.
INTR 1PL.ABS MAL 2SG.ABS= leave
'You left against us.' (el)

b. 

Since the adpositional objects of P-doubling PPs also D-double, in that case an additional [uD] probe becomes necessary to correctly derive both the P-doubling and the D-doubling of an oblique participant like a malefactive in the example above.

In chapter 4 (§4.1.2) I described Person-Case Constraint (PCC) effects for Panará dative and absolutive clitics. We can imagine that two applicative positions are available: high applicatives, merged above VP, and low applicatives, merged below VP (Pylkkänen 2008).

In the approach explored here, cliticization of the dative constituent diagnoses the position of the applicative dative phrase: clitic-doubling dative DPs are introduced by a high applicative, whereas datives introduced by a low applicative are prevented from cliticizing, as probing from Infl is blocked by the absolutive DP (415).

(415) 

Independent evidence from ergative and absolutive clitics supports the notion that Panará Infl probes are only specified for speech-act participant features (§6.2), with third person dative clitics actually being not specified for person features: they are default morphemes inserted at Vocabulary Insertion given the lack of a feature bundle with a correspondingly specified morpheme (415).

The form of third person dative clitics, /mã/, identical to the dative adposition, supports this hypothesis. Thus, only speech-act participant datives do in fact intervene probing of the absolutive DP, giving rise to the symmetrical PCC effects described above.

Since there is no PCC for ergative and PP participants, under the present approach this tells us that Infl comes equipped with a single probe for internal arguments, and separate ones that target ergative case and adpositions, respectively.

Noun incorporation, which is also present in Panará (416), is not addressed in this dissertation. See however Dourado (2001: ch. 6) for a more extended description of the phenomenon in Panará.

(416) Pôka hẽ ti= sikja= si= syri mãra.
Pôka erg 3sg.erg hand bone hit 3sg
'Pôka hit his hand.' (el)

However, the notion that noun incorporation is the realization of the head of a noun phrase within the verbal complex (Baker 1988) would fall within the proposal of deriving the Panará polysynthetic verb complex via head movement. Just like clitics are generated by head movement of the DP head for D-clitics and the PP head for P-clitics, noun incorporation would result from the equivalent process for the head of the NP.

6.2 No person exponence

In chapter 3 I presented a view of Panará participant cross-reference in which the shift from an ergative case alignment in the clitic system in realis mood to a tripartite case alignment for irrealis mood is caused by a different person exponence: in realis mood clitics appear to be exponents of person, case and number, while in irrealis mood person exponence is reduced to a two-way exponence of speaker/non-speaker and addressee/non-addressee. It is however not clear, from just a description of the facts, why such a system would exist in Panará. In this section I provide a derivational explanation of the apparent alignment split in Panará clitics. I argue that Panará clitics never expone persons, not even in realis mood.

As mentioned in section 3.4.2.4, the clitic paradigms in irrealis mood can be reduced to a single opposition—addressee and speaker.

Third	Second	First
[person]	[person] [addressee]	[person] [speaker]

Table 6.3: Panará persons (take 1).

The Panará verb complex has two clitic slots that cross-reference the core arguments. There is a the clitic slot dedicated exclusively to ergative participants in realis mood. In irrealis mood, however, the same slot tracks speaker/non-speaker exponence of the single argument of intransitive verbs.

The second slot cross-references absolutive arguments in realis mood. With intransitive verbs in irrealis mood, the absolutive slot tracks an addressee/non-addressee distinction for the single argument of intransitive verbs.

(417) *Irrealis intransitive absolutive cross-reference*

a. *Ergative slot*
∅ ↔ speaker [SPK]
ti ↔ non-speaker [NSPK]

b. *Absolutive slot*
a ↔ addressee [ADRE]
∅ ↔ non-addressee [NADRE]

As for transitive clauses, in irrealis mood the two slots are each mapped to their associate DP. The ergative slot is a morphological exponent of the ergative DP for a speaker/non-speaker opposition (418), and the absolutive slot is

filled with the more rich absolutive clitics that cross-reference absolutive DPs also in realis mood.

(418) *Irrealis transitive cross-reference*

a. *Ergative*
∅ ↔ [SPK, ERG]
ti ↔ [NSPK, ERG]

b. *Absolutive*
ra ↔ [1SG]
a ↔ [2SG]
∅ ↔ [3SG]

Here I argue that Panará participant cross-reference never targets individual persons, but always the speaker/non-speaker and addressee/non-addressee oppositions that appear more transparently in irrealis mood. To derive this claim, it is first necessary to reformulate the Panará person architecture into an entailment hierarchy of privative participant features, as in the Harley & Ritter (2002) approach:

THIRD	SECOND	FIRST
[person]	[person] [participant] [addressee]	[person] [participant]

Table 6.4: Panará persons (take 2).

A similar take can be assumed for English person inflection, where two exponents target two sets of person features. An /-s/ morpheme expones the [person] feature, while a /-∅/ morpheme expones the more specified [participant] feature.

(419) *English person exponence*

a. -∅ ↔ [participant]

b. -*s* ↔ [person]

Since Panará clitics are morphological exponents of not only person but also number and case, these dimensions also need to be formalized into the exponence system. This adds a [singular]–[plural] opposition, with a separate

dual morpheme and an idiosyncratic *rê* morpheme for the exponence of the [ADDR,PL] bundle.

The approach that I adopt is the following. In this system, the inventory of vocabulary items (VIs) is inserted based on the relevant features of a particular lexical or functional node. In this case, we are looking at clitic paradigms. These VIs are inserted according to the person hierarchy of the language, with a default morpheme for any features that do not have a more closely specified match. VI insertion will follow the subset principle (Halle 1997):

(420) **Subset Principle**
Insert a VI that matches the most features on a feature bundle, without containing any features not present

For Panará, the hierarchy is by default [ADRE]→[PART]→[PERS]. In realis mood, the more specified person is [ADRE]. In the ergative cross-reference, the inserted morpheme will match the features of the ergative DP as closely as possible from the inventory below:

(421) *Ergative slot*

a. ka ↔ [ADRE, ERG]

b. rê ↔ [PART, ERG]

c. nẽ ↔ [PL, ERG]

d. ti ↔ [PERS, ERG]

As can be seen, *ti* becomes a default clitic that cross-references any ergative DPs with no better match for their features.

In the absolutive cross-reference, a very similar situation takes place. The most specified feature is [ADRE], followed by a [PART] morpheme that will cross-reference first person and is homophonous with the [PL] exponent, and finally there is a phonologically null morpheme ∅ that, as the absolutive equivalent of ergative *ti*, is inserted with any [PERS] features.

(422) *Absolutive slot*

a. a ↔ [ADRE]

b. ra ↔ [PART]

c. ra ↔ [PL]

d. ∅ ↔ [PERS]

In irrealis mood, the situation changes in three ways: the inventory of VIs is reduced, the entailment hierarchy is slightly modified, and the two cross-reference slots are always active.

In the absolutive slot, only two VIs are available, both recycled from the more rich realis absolutive exponence inventory. The clitic *a* is the exponent of [ADRE], and the default phonologically null ∅ will cross-reference all other DPs.

(423) *Absolutive slot*

a. a ↔ [ADRE]

b. ∅ ↔ [PERS]

In the ergative slot, only two morphemes are available and the person architecture is slightly modified, with [SPK(eaker)] replacing [ADRE] as the more specified feature: [SPK]→[PART]→[PERS]. A phonologically null morpheme ∅ is the morphological exponent of [SPK], and the same underspecified *ti* morpheme that is active in realis mood is also available; it will effectively be the exponent for all non-speaker DPs.

(424) *Ergative slot*

a. ∅ ↔ [SPK]

b. ti ↔ [PERS]

This system correctly generates the full paradigm of argument cross-reference clitics in Panará, summarized in table 6.5.

		ERG		ABS	
		SG	PL	SG	PL
	1	rê	nẽ	ra	ra
REAL	2	ka	ka rê	a	rê a
	3	ti	nẽ	∅	ra

				ABS_{TR}		ABS_{INTR}	
		SG	PL	SG	PL	SG	PL
	1	∅	∅	ra	ra	∅ ∅	∅∅
IRR	2	ti	ti rê	a	rê a	ti a	ti rê a
	3	ti	ti	∅	ra	ti ∅	ti ∅

Table 6.5: Panará argument clitics.

Two questions arise from the account provided above: (a) why is irrealis cross-reference exponence poorer? and (b) why are both cross-reference slots active for irrealis intransitive clauses?

There are different ways to get to make sense synchronically of the Panará reduced participant exponence in irrealis mood. The coincidence of *ka* [IRR] and *ka* [2ERG] could be disapproved by the morphology and a haplology process replaces the pronominal clitic *ka* with the less specified ergative clitic *ti*. However, that still leaves first person ergative in irrealis to be explained.

Alternatively, the appearence of a modal clitic *ka* in irrealis could be imagined to activate the following slot (the ergative slot) in a way that does not happen in realis mood, so that this slot needs to always be active.

However, crosslinguistically the more marked inflectional category is in many cases more reduced in its exponence of participant features when compared to the less marked caregory:[2]

(425) *English tense*

Present	*Past*
walk	walked
walk	walked
walks	walked

(426) *Romance mood (Catalan)*

Indicative	*Subjunctive*
camin-o (walk-1SG.PRS)	camin-i (walk.1SG.SUBJ)
camin-es (walk-2SG.PRS)	camin-is (walk.2SG.SUBJ)
camin-a (walk-3SG.PRS)	camin-i (walk.3SG.SUBJ)

As seen in the examples above, participant exponence has fewer available morphemes in the more marked category. Thus, Panará also falls into this universal tendency: the less marked realis mood disposes of richer cross-reference morphology than the more marked irrealis mood.

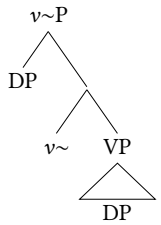
Panará also presents the double activation of the two argument cross-reference slots, where in irrealis intransitive there is multiple exponence of the single intransitive argument (427).

2. I would like to thank Omer Preminger for a discussion on these issues.

(427) *Second person singular, irrealis intransitive*
Ka ka= ti= a= tẽri.
2SG IRR NSPK ADRE leave.IRR
'You will leave.' (el)

I propose the following hypothesis. In Panará, all intransitive verbs are indistinct for subclasses corresponding to unergative and unaccusative verbs. The absolutive case marking on the single argument of intransitive verbs suggests that those DPs occupy the same position as absolutives of transitive clauses, as complements of V.

This means that the specifier position of *v*~P is unoccupied in intransitive clauses. It is possible that, in irrealis mood, some type of A-movement is required of the internal argument to merge with v~ (428).

(428)


Since the displaced DP does not acquire ergative case as the [*v*] feature but, if anything, it would acquire an intransitive [*v*~] feature, ergative marking on irrealis intransitive arguments is not predicted.

This chapter has approached the various elements of the cross-reference system in Panará with the goal of providing a derivational account of the phenomena. The Panará polysynthetic verb complex presents clitics that double adpositions (P-clitics) and DPs (D-clitics), encompassing absolutive, ergative, dative and adpositional participants.

Panará emerges as a morphosyntactically rather transparent language. The search operations by the anchoring category in the language, INFL, identify a series of participant constituents, both nominal and adpositional. In both cases, the operation triggers a morphological reflection in the verb complex in the form of cliticization. This process sets apart two classes of PPs, those that are inserted during structure-building by means of an applicative head, and those that are properly adjuncts and are late-inserted in the derivation.

Oblique participants in Panará also present a strong case for a typology of P-clitics in other languages like Otomí (Otomanguean), where phenomena

with the superficial morphosyntactic traits of clitic-doubling are misanalyzed as applicatives, even though none of the syntactic effects of applied objects are observed.

The actual D-clitics of Panará do not correspond to persons, but instead they are sensitive to broader distinctions in participant hierarchies. A single opposition for each of the paradigms, completed with a default clitic, is sufficient to capture all of the distinctions. In addition, the form of clitics in irrealis mood does not constitute a different case marking alignment, split off from that of DPs, but is instead the result of a reduced inventory of morphemes available for insertion as spelled-out forms of the D heads adjoined to Infl.

CHAPTER 7

Conclusion

In this dissertation I have presented a study of case and agreement in Panará. My goal was to lay out the facts and explore their placement within current theoretical approaches in the generative minimalist framework. I have done this by first providing an exhaustive presentation of the data, connecting it to similar phenomena in other Jê languages where relevant, and then engaging in a syntactic discussion on how to best capture the data at hand within the theory.

From the perspective of comparative analyses within the family, Panará has long been considered a strange Jê language. As seen in chapter 3, this is especially true for the two grammatical concepts that appear on the title of this dissertation, case and agreement. While ergative case marking in classic Jê languages is strictly connected to the presence of nominal predicate heads, falling within the broader scope of ubiquitous ergativity phenomena that are observed cross-linguistically, Panará presents a uniformly ergative case marking alignment rooted in the exponence of the functional structure of finite clauses (568).

(429) Joopy hẽ ti= ∅= krẽ swasĩrã.
jaguar ERG 3SG.ERG 3SG.ABS eat w.l.peccary
'The jaguar ate a white-lipped peccary.' (el)

(430) [Patty hẽ ti= ∅= pĩra swasĩrã] rê= ∅= ku=
Patty ERG 3SG.ERG 3SG.ABS kill peccary 1SG.ERG 3SG.ABS chew
krẽ.
eat
'I ate the peccary that Patty killed.' (el)

In chapter 5 I propose that the exponence of dependencies between phrases and functional heads can capture similar predictions that are put forward in the existing structural case approaches. In this view, retention of features corresponding to a selecting functional head can be used to derive different combinations of such features for spell-out at the vocabulary insertion stage of the derivation. Given that, as a function of the syntactic derivation, dependency is an independently existing relation, a mechanism that derives case as an exponence of dependency can avoid to a degree the stipulation present in the mechanisms that derive dependent case or classic Agree case.

As the only polysynthetic language in the family, the Panará verb complex presents a series of clitics that cross-reference a series of participants. Panará polypersonalism comprises pronominal clitic-doubling, D-doubling, of absolutive, ergative, dative and oblique participants, and P-doubling of a class of PPs. As I discussed in chapter 4, P-doubling is only available to a series of PP participants, some of which present homonymy with oblique participants that are static—they cannot P-double—, our most explored instance of which is the postposition *pêê*: P-doubling with malefactive semantics, static with ablative semantics (569).

(431) a. Jy= ra= pêê= a= ty inkjẽ pêê.
INTR 1SG.ABS MAL 2SG.ABS die 1SG MAL
'You died on me.' (el)

b. Sâkjo jy= ∅= (*pêê=) ∅= pôô aty pêê.
Sâkjo INTR 3SG.ABS ABL 3SG.ABS arrive forest ABL
'Sâkjo arrived from the forest.' (el)

The proposed generalization that relational PPs are licensed for P-doubling while stative PPs are banned from P-doubling is captured in chapter 6 by proposing that P-doubling PPs are inserted by applicative heads, while static PPs are late-merged adjuncts. The mechanism that I propose to derive the massive Panará clitic-doubling, head movement triggered by an Agree relation from the anchoring functional category INFL, can thus be extended to predict that P-doubling PPs will be targeted for cliticization, while static PPs are merged too late to form a chain with INFL.

The keystone between Panará case and agreement is the cross-reference of arguments in irrealis mood, described in chapter 3. Long believed to constitute a partial alignment split in the language, between ergative case-marked DPs and nominative case-marked clitics in irrealis mood, I have argued instead in chapter 6 that a series of factors conspire to mask the case alignment of Panará clitics. Rampant discontinuous exponence, not uncharacteristic of clitic-doubling systems, muddles the picture of the alignment of clitics when combined with the reduced exponence of participants in irrealis mood. In this analysis, a cross-reference system that tracks participant features in an entailment system underlies the agreement of the clitics in the verb complex with their associated DPs. There is no nominative in Panará: DPs are always case-marked in an ergative alignment, and clitics are a patchwork of participant feature exponence.

Even though Panará presents starkly non-Jê traits, it is nonetheles not an especially strange language in a broader perspective. I have argued that raising of the verb to Infl, effectively a version of traditional V-to-T movement, explains the non verb-final structure of Panará clauses. Further work in a diachronic approach should reveal the historical pressures that led to a reanalysis of the verb-final Jê clause as a verb complex. At an intuitive level, it appears reasonable that the pleonastic and emphatic dislocation of phrases to which Jê languages are so prone was also present in preceding developmental stages of Panará, until the tightly ordered elements in the clause were restructured as a polysynthetic verb complex.

With this book, what I have endeavoured to accomplish is to place Panará in the current scene of linguistic research. On the one hand, a vast majority of the indigenous languages all around the globe are severely underdocumented and underdescribed. I hope to be on the right course for remedying that for Panará, and that this book contains a description of the data that manages to remain faithful to the language. On the other hand, it is often remarked not without reason that an important part of the developments in linguistic theory takes place with little or no contribution from non-mainstream languages. In that regard, a message that I hope to have delivered is that languages like Panará are an excellent foundation for the investigation of theoretical issues as current as case or probe-goal derivations.

APPENDIX A

Hunting in the old days

This is a transcription of a text told by Akââ, a prominent Panará elder. In it, Akââ describes hunting in the times before contact in 1973. He recounts how hunters tracked and killed various animals, and he then mentions specific types of arrowheads and what they were used for. Audio available at the ELAR deposit page: elar.soas.ac.uk/Record/MPI1091713.

(432) Joopy ra= pa.
jaguar 3PL.ABS walk
'There were jaguars.'

(433) Rê= ∅= pjâri joopy.
1PL.ERG 3SG.ABS follow jaguar
'We followed a jaguar.'

(434) Mãmã nĩ.
this LOC
'There.'

(435) Rê= ∅= pari, rê= ∅= pari.
1PL.ERG 3SG.ABS kill.PLAC 1SG.ERG 3SG.ABS kill.PLAC
'We killed it.'

(436) Rê= ∅= kâri pjoo swa, inkjoo.
1PL.ERG 3SG.ABS cut NEG tooth NEG
'We didn't cut the teeth, no.'

(437) Swa kjã rê= ∅= kâri, sikâkâ rê= ∅= kjã= kâri.
tooth head 1PL.ERG 3SG.ABS cut claw 1PL.ERG 3SG.ABS head cut
'We pulled its canines out, we pulled its claws out.'

(438) Kâ pêj ho krĩ, tijãri.
skin ABL INS village EV
'We took its skin.'

(439) Nãnkjô ti= ∅= kjã= kwârâ, rê= tân= ∅= pari
peccary 3SG.ERG 3SG.ABS head break 1PL.Erg COM 3SG.ABS kill.PLAC
joopy.
jaguar
'It broke the peccary's head, the jaguar, we killed it.'

(440) Kjyti ti= ∅= kjã= kwârâ, rê= tân= ∅= pari joopy.
tapir 3SG.ERG 3SG.ABS head break 1PL.Erg COM 3SG.ABS kill.PLAC jaguar
'It broke the tapir's head, the jaguar, we killed it.'

(441) Kjyti ti= ∅= kjã= kwârâ.
tapir 3SG.ERG 3SG.ABS head break
'It broke the tapir's head.'

(442) Rê= ∅= kwajãri inkjẽ-mẽrãn, swankjarân.
1PL.ERG 3SG.ABS make 1SG-PL.ERG ancient.PL.ERG
'That's what we did, the ancients.'

(443) Kjyti kõ ra= pa, rê= ∅= pari.
tapir PER 1PL.ABS walk 1PL.ERG 3SG.ABS kill.PLAC
'We followed a tapir, we killed it.'

(444) Rê= ∅= sinõ pô rê= ∅= sinõ.
1PL.ERG 3SG.ABS cut.open gut 1PL.ERG 3SG.ABS cut.open
'We cut the stomach, we cut it open.'

(445) Rê= ∅= sinõ= sâri, ∅= ho= ra= pôô tu ho.
1PL.ERG 3SG.ABS cut.open cut 3SG.ABS INS 1PL.ABS come belly INS
'We cut it open, we came back with the stomach.'

(446) Pytikôômã su= ra= pa rê= ho= jôti, rê= ∅= kuri
morning FIN 1PL.ABS walk 1PL.ERG INS carry 1PL.ERG 3SG.ABS eat
kjyti rê= ∅= para.
tapir 1PL.ABS 3SG.ABS kill.PLAC
'We went in the morning, we carried it, we ate the tapir that we killed.'

(447) Rê= ∅= para ∅= rê= kwajãra suankjarân kjyti.
1PL.ERG 3SG.ABS killPLAC 1PL.ERG 3SG.ABS make ancient.PL.ERG tapir
'Us ancients killed it, we prepared it, the tapir.'

(448) Pytikôômã ra= pa tõ, rê= ∅= pjâri.
morning ABS walk other 1PL.ERG 3SG.ABS follow
'In the morning another one is walking, we go for it.'

(449) Mãmã pêê pa swasĩra ho ra= pa pjy hã.
this ABL walk w.l.peccary INS 3PL.ABS walk path ADES
'Then the white-lipped peccaries are walking on the path'

(450) Uwã rê= ∅= pjâri mãmã nĩ ra= pan swasĩra, rê=
far 1PL.ERG 3SG.ABS follow this LOC 1PL.ABS walk w.l.peccary 1PL.ERG
∅= pari.
3SG.ABS kill.PLAC
'Over there we followed it, where the peccary lives, we killed it.'

(451) Rê= ho= jôti, rê= ∅= kuri.
1PL.ERG CAUS carry 1PL.ERG 3SG.ABS eat
'We carried it, we ate it.'

(452) Rê= ∅= kuri rê= ∅= kwajãri swasĩra.
1PL.ERG 3SG.ABS eat 1PL.ERG 3SG.ABS make w.l.peccary
'We ate it, we prepared the peccary.'

(453) Hê py= pa jôriti, rê= ∅= pari jôriti
then ITER walk collared.peccary 1PL.ERG 3SG.ABS kill.PLAC collared.peccary
rê= ∅= kuri.
1PL.ERG 3SG.ABS eat
'Then some collared peccaries walk together, we killed it, we ate it.'

(454) ∅= ho= ra= pôô rê= ∅= kuri jôriti rê=
3SG.ABS INS 1PL.ABS arrive 1PL.ERG 3SG.ABS eat collared.peccary 1PL.ERG
∅= kuri.
3SG.ABS eat
'We brought it back, we ate the collared peccary, we ate it.'

(455) Jãsy japêj so py= ra= pa.
deer looking thing ITER 1PL.ABS walk
'We went again looking for deer.'

(456) Ra= pa swasêri mã rê= ∅= pjyri.
1PL.ABS walk hunting DAT 1PL.ERG 3SG.ABS encounter
'We were walking on the hunt, we encountered it.'

(457) Jãsy rê= ∅= pari.
deer 1PL.ERG 3SG.ABS kill.PLAC
'We killed the deer.'

(458) ∅= ho= ra= pôô kri tã.
3SG.ABS INS 1PL.ABS arrive village ALL
'We brought it back to the village.'

(459) Rê= ∅= sê kjê, rê= ∅= mĩri, rê= ∅= kuri.
1PL.ERG 3SG.ABS fire campfire 1PL.ERG 3SG.ABS wrap 1PL.ERG 3SG.ABS eat
'We prepared the campfire, we wrapped it, we ate it.'

(460) Rê= ∅= kwajãri jãsy.
1PL.ERG 3SG.ABS make deer
'We left the deer ready to eat.'

(461) Hê tititi kõõ ra= pa paa kõõ.
then armadillo PER 1PL.ABS walk trace PER
'Then we followed an armadillo, we followed its tracks.'

(462) Ũwa rê= ∅= pjâ, mãmã pêê kwân.
far 1PL.ERG 3SG.ABS encounter, this ABL dig
'Far away, we find it, then we dig.'

(463) Mãmã nĩ rê= ∅= kwân, rê= ∅= kwân.
this LOC 1PL.ERG 3SG.ABS dig 1PL.ERG 3SG.ABS dig
'There we dug, we dug.'

(464) Rê= s= apôpô, kô ho rê= s= apôpô tititi,
1PL.ERG 3SG.ABS pierce stick INS 1PL.ERG 3SG.ABS pierce armadillo
rê= ∅= pari.
1PL.ERG 3SG.ABS kill.PLAC
'We stabbed it, we stabbed the armadillo with a stick, we killed it.'

(465) Rê= ho= ∅= jôti mãmã pêê ∅= ho= ra= pôô
1SG.ERG CAUS 3SG.ABS carry this ABL 3SG.ABS INS 1PL.ABS arrive
kri tã tititi ho.
village ALL armadillo INS
'We carried it and we went back to the village with the armadillo.'

(466) Rê= ∅= sê= kjê.
1PL.ERG 3SG.ABS fire campfire
'We made a fire.'

(467) Rê= ∅= nã= syri.
1PL.ERG 3SG.ABS tie do
'We tied it.'

(468) Rê= ∅= mĩri kjê amã.
1PL.ERG 3SG.ABS cook campfire INES
'We cooked it in the fire.'

(469) Rê= ∅= kuri tititi.
1PL.ERG 3SG.ABS eat armadillo
'We ate the armadillo.'

(470) Rê= ∅= wajã tititi, rê= ∅= kuri
1PL.ERG 3SG.ABS make armadillo 1PL.ERG 3SG.ABS eat
'We prepared the armadillo, we ate it.'

(471) Soti rê= so= kuri, mãmã sotira rê= so= kura pjâra.
thing 1PL.ERG thing eat this thing.PL 1PL.ERG thing eat PAU
'We ate many thing, these things we ate.'

(472) Ra= pa.
1PL.ABS walk
'We walked.'

(473) Swasêri mã.
hunting DAT
'On the hunt.'

(474) Mãmã rê= ∅= pjâri pâtiti.
this 1PL.ERG 3SG.ABS encounter giant.anteater
'Then we encountered a giant anteater.'

(475) Mãmã pêê tã pa.
this ABL ALL walk
'They go there.'

(476) Pôjôtâ ti= so= kuri sanpâ pâtiti pôjôtâ ti= ∅= kuri.
termite 3SG.ERG thing eat full anteater termite 3SG.ERG 3SG.ABS eat
'It eats termites, the anteater eats termites.'

(477) Rê= tân= ∅= pari pâtiti.
1PL.ERG COM 3SG.ABS kill.PLAC anteater
'We killed the anteater.'

(478) ∅= ho= ra= pôô kri tã, rê= ∅= kuri pâtiti
3SG.ABS INS 1PL.ABS arrive village ALL 1PLERG 3SG.ABS eat anteater
'We brought it back to the village and we ate the anteater.'

(479) Rê= ∅= wajãri.
1PL.ERG 3SG.ABS make
'That's what we did.'

(480) Rê= ∅= wajãri ja-pjâra rê= so= pari.
1PL.ERG 3SG.ABS make this-PAU 1PLERG thing kill
'We did that, we hunted animals.'

(481) Po ho rê= so= pari ja-pjâra.
straight.a.h INS 1PL.ERG thing kill.PLAC this-PAU
'We hunted with straight arrowheads.'

(482) Swâsi ho su= rê= so= pari ikkôô.
serrated.a.h. INS FIN 1PL.ERG thing kill.PLAC monkey
'With serrated arrowheads we killed monkeys.'

(483) Ikkôô nẽ= ∅= pari.
monkey 1PL.ERG 3SG.ABS kill.PLAC
'We killed monkeys.'

(484) Swâsi ho, ∅= ho= ra= pôô, rê= ∅= kuri ikkôô.
serrated.a.h. 3SG.ABS INS INS 1PL.ABS arrive 1PL.ERG 3SG.ABS eat monkey
'With serrated arrowheads, we brought it back, we ate the monkey.'

(485) Kwakriti rê= ∅= pari po ho.
spider-monkey 1PL.ERG 3SG.ABS kill.PLAC straight.a.h INS
'We killed spider monkeys with straight arrowheads.'

(486) ∅= ho= ra= pôô, rê= ∅= mĩri.
3SG.ABS INS 1PL.ABS arrive 1PL.ERG 3SG.ABS cook
'We brought it back, we cooked it.'

(487) Rê= ∅= kuri kwakriti.
1PL.ERG 3SG.ABS eat spider-monkey
'We ate the spider-monkey.'

(488) Swakõ rê= ∅= pari tõ po ho.
coati 1PL.ERG 3SG.ABS kill.PLAC other straight.a.h INS
'We also killed coatis with straight arrowheads.'

(489) Rê= ∅= kuri. Rê= ho= ra= pôô swakõ ho, rê=
1PL.ERG 3SG.ABS eat 1PL.ERG CAUS 3PL.ABS arrive coati INS 1PL.ERG
∅= kuri.
3SG.ABS eat
'We ate it. We brought the coati back, we ate it.'

(490) Rê= ∅= wajãri sõjoopy.
1PL.ERG 3SG.ABS make game
'We prepared the animal.'

(491) Ja-pjâra rê= so= pari po ho.
this-PAU 1PL.ERG thing kill.PLAC straight.a.h INS
'We hunted with straight arrowheads.'

(492) Joopy rê= ∅= ho= ∅= pari.
jaguar 1PL.ERG 3SG.ABS INS 3SG.ABS kill.PLAC
'We killed jaguars with them.'

(493) Kjyti rê= ∅= ho= ∅= pari.
tapir 1PL.ERG 3SG.ABS INS 3SG.ABS kill.PLAC
'We killed tapirs with them.'

(494) Nãnkjô rê= ∅= ho= ∅= pari.
w.l.peccary 1PL.ERG 3SG.ABS INS 3SG.ABS kill.PLAC
'We killed white-lipped peccaries with them.'

(495) Jôriti rê= ∅= ho= ∅= pari.
coll.peccary 1PL.ERG 3SG.ABS INS 3SG.ABS kill.PLAC
'We killed collared peccaries with them.'

(496) Jãsy rê= ∅= ho= ∅= pari.
deer 1PL.ERG 3SG.ABS INS 3SG.ABS kill.PLAC
'We killed deer with them.'

(497) Pâtiti rê= ∅= ho= ∅= pari.
giant.anteater 1PL.ERG 3SG.ABS INS 3SG.ABS kill.PLAC
'We killed giant anteaters with them.'

(498) Swakõ rê= ∅= ho= ∅= pari.
coati 1PL.ERG 3SG.ABS INS 3SG.ABS kill.PLAC
'We killed coatis with them.'

(499) Kwakriti rê= ∅= ho= ∅= pari.
spider-monkey 1PL.ERG 3SG.ABS INS 3SG.ABS kill.PLAC
'We killed spider-monkeys with them.'

(500) Rê= ∅= nkwajãri po ho.
1PL.ERG 3SG.ABS make straight.a.h INS
'That's what we did with straight arrowheads.'

(501) Po ho.
straight.a.h INS
'With straight arrowheads.'

(502) Soti ho rê= ∅= wajãri pjoo torinsi, kô ho su=
thing INS 1PL.ERG 3SG.ABS make NEG giant.armadillo stick INS FIN
rê= s= apôpô.
1PL.ERG 3SG.ABS pierce
'We didn't go at the giant armadillo with those, we stabbed it with sticks.'

(503) Rê= ∅= pjy torinsi kô ho.
1PL.ERG 3SG.ABS follow giant.armadillo stick INS
'We went after the giant armadillo with sticks.'

(504) Rê= ∅= kõ= ∅= kre torinsi kõ, rê= ∅=
1PL.ERG 3SG.ABS PER 3SG.ABS hole giant.armadillo 1PL.ERG 3SG.ABS PER
kõ= ∅= kre.
3SG.ABS hole
'We dug after the giant armadillo, we dug after it.'

(505) Hõkwa rê= ∅= pjyri.
there 1PL.ERG 3SG.ABS follow
'We found it there.'

(506) Rê= s= apôpô torinsi kô ho.
1PL.ERG 3SG.ABS pierce giant-armadillo stick INS
'We stabbed the armadillo with sticks.'

(507) Mãmã pêê rê= ho= ∅= pôô, rê= ∅= rõwa.
this ABL 1PL.ERG CAUS 3SG.ABS arrive 1PL.ERG 3SG.ABS kill
'Then we made it come, we killed it.'

(508) ∅= ho= ra= pôô, rê= ∅= sapu.
3SG.ABS INS 1PL.ABS arrive 1PL.ERG 3SG.ABS wrap
'We carried it, we wrapped it with leaves.'

(509) ∅= ho= ra= pa kri tã, rê= ∅= kuri.
3SG.ABS INS 1PL.ABS walk village ALL 1PL.ERG 3SG.ABS eat
'We carried it to the village and we ate it.'

(510) Nẽ= ∅= kwajãri torinsi.
1PL.ERG 3SG.ABS make giant.armadillo
'We prepared the giant armadillo.'

(511) Torinsi rê= ∅= kuri.
giant.armadillo 1PL.ERG 3SG.ABS eat
'We ate the giant armadillo.'

(512) Swâsi ho, rê= sê= sunswâ swâsi tepi ahê
serrated.a.h. INS 1PL.ERG string place serrated.a.h. fish FIN
'With serrated arrowheads, we carried them to get fish.'

(513) Rê= ∅= ho= s= apôpô tepi.
1PL.ERG 3SG.ABS INS 3SG.ABS pierce fish
'We caught fish with them.'

(514) Kjãrãsânsi rê= ∅= ho= s= apôpô.
peacock-bass 1PL.ERG 3SG.ABS INS 3SG.ABS pierce
'We caught peacock bass with them.'

(515) Tosôa rê= ∅= ho= s= apôpô.
needlefish 1PL.ERG 3SG.ABS INS 3SG.ABS pierce
'We caught needlefish with them.'

(516) Swaja rê= s= apôpô.
pike-characin 1PL.ERG 3SG.ABS pierce
'We caught pike characin.'

(517) Pjoja rê= ∅= ho= s= apôpô.
pacu 1PL.ERG 3SG.ABS INS 3SG.ABS pierce
'We caught pacu with them.'

(518) Jõti rê= ∅= ho= s= apôpô.
curimata 1PL.ERG 3SG.ABS INS 3SG.ABS pierce
'We caught *curimata* with them.'

(519) Rê= ∅= wajã swâsi ho.
1PL.ERG 3SG.ABS make serrated.a.h. INS
'That's what we did with serrated arrowheads.'

(520) Swâsi ho rê= ∅= pari tepi.
serrated.a.h. INS 1PL.ERG 3SG.ABS kill.PLAC fish
'We killed fish with serrated arrowheads.'

(521) Swâsi ho rê= s= apôpô tepi.
serrated.a.h. INS 1PL.ERG 3SG.ABS pierce fish
'We caught fish with serrated arrowheads.'

(522) Swâsi ho.
serrated.a.h. INS
'With serrated arrowheads.'

(523) Rê= ∅= wajãri.
1PL.ERG 3SG.ABS make
'That's what we did.'

(524) Apjãn rê= kjã= kwâri tõ swâsi ho.
river-turtle 1PL.ERG head break other serrated.a.h. INS
'We also killed river turtles with serrated arrowheads.'

(525) Apjã ho rê…
river-turtle INS 1PL.ERG
'With river turtles…'

(526) Apjã nẽ= ∅= pari swâsi ho.
river-turtle 1PL.ERG 3SG.ABS kill.PLAC serrated.a.h. INS
'We killed river turtles with serrated arrowheads.'

(527) Rê= ∅= kuri.
1PL.ERG 3SG.ABS eat
'We ate them.'

(528) Apjã swâsi ho rê= ∅= pari.
river-turtle serrated-a.h. INS 1PL.ERG 3SG.ABS kill.PLAC
'We killed river turtles with serrated arrowheads.'

(529) Rê= ∅= wajãri.
1PL.ERG 3SG.ABS make
'That's what we did.'

(530) Swâsi ho rê= ∅= pari nãnpân.
serrated.a.h. INS 1PL.ERG 3SG.ABS kill.PLAC macaw
'We killed macaws with serrated arrowheads.'

(531) Rê= ∅= kuri nânpân, swâsi ho rê= ∅= pari.
1PL.ERG 3SG.ABS eat macaw serrated.a.h. INS 1PL.ERG 3SG.ABS kill
'We ate macaws, we killed them with serrated arrowheads.'

(532) Swâsi ho rê= ∅= pari tomãkriti.
serrated.a.h. INS 1PL.ERG 3SG.ABS kill.PLAC curassow
'We killed curassows with serrated arrowheads.'

(533) Rê= ∅= kuri tomãkriti, swâsi ho rê= ∅= pari.
1PL.ERG 3SG.ABS eat curassow serrated.a.h. INS 1PL.ERG 3SG.ABS kill.PLAC
'We ate curassows, we killed them with serrated arrowheads.'

(534) Kôôtita rê= ∅= pari swâsi ho.
guan 1PL.ERG 3SG.ABS kill.PLAC serrated.a.h. INS
'We killed guans with serrated arrowheads.'

(535) Rê= ∅= kuri.
1PL.ERG 3SG.ABS eat
'We ate them.'

(536) Sõkranpjââ rê= ∅= ho= s= apôpô swâsi ho.
red.guan 1PL.ERG 3SG.ABS INS 3SG.ABS pierce serrated.a.h. INS
'We hunted red-throat guans with serrated arrowheads.'

(537) Rê= ∅= ho= ∅= kuri.
1PL.ERG 3SG.ABS INS 3SG.ABS eat
'We ate them.'

(538) Rê= ∅= wajãri swâsi ho.
1PL.ERG 3SG.ABS make serrated.a.h. INS
'That's what we did with serrated arrowheads.'

(539) Swâsi, sõpãã-jantê swâsi.
serrated.a.h. child-NMLZ serrated.a.h.
'Serrated arrowheads for hunting cubs.'

(540) Tomakrit-antê, nãnpâr-antê.
curassow-NMLZ macaw-NMLZ
'For hunting curassows, for hunting macaws.'

(541) Tomasâ rê= ∅= ho= ∅= pari.
piping-guan 1PL.ERG 3SG.ABS INS 3SG.ABS kill.PLAC
'We killed piping guans with them.'

(542) Prete rê= ∅= ho= ∅= pari.
trumpeter 1PL.ERG 3SG.ABS INS 3SG.ABS kill.PLAC
'We killed black trumpeters with them.'

(543) Kwârô rê= ∅= ho= ∅= pari
parrot 1PL.ERG 3SG.ABS INS 3SG.ABS kill.PLAC
'We killed parrots with them.'

(544) Swakjê rê= ∅= ho= ∅= pari.
swakjê 1PL.ERG 3SG.ABS INS 3SG.ABS kill.PLAC
'We killed *swakjê* with them.'

(545) Jõkwekwen rê= ∅= ho= ∅= pari.
toucan 1PL.ERG 3SG.ABS INS 3SG.ABS kill.PLAC
'We killed toucans with them.'

(546) Rê= ∅= wajãri swâsi ho, tân rê= ∅= kwajãri.
1PL.ERG 3SG.ABS make serrated.a.h. INS TMP 1PL.ERG 3SG.ABS make
'That's what we did with serrated arrowheads, we did this back then.'

(547) Po ho su rê= ∅= ho= ∅=pari.
straight.a.h INS FIN 1PL.ERG 3SG.ABS INS3SG.ABS kill.PLAC
'We went hunting with straight arrowheads.'

(548) Kjyti po ho, kjyti.
tapir straight.a.h INS tapir
'Tapirs, with straight arrowheads, tapirs.'

(549) Joopy, nãnkjô, jôriti, pâtiti, jãsy.
jaguar peccary white-peccary anteater deer
'Jaguars, white-lipped peccaries, collared peccaries, giant anteaters, deers.'

(550) *So* ja-pjâra.
only this-PAU
'Only us.'

(551) Japjâra rê= ∅= ho= ∅= pari po ho
this-PAU 1PL.ERG 3SG.ABS INS 3SG.ABS kill.PLAC straight.a.h INS
'Us hunters killed with straight arrowheads.'

(552) Swâsi ho su tepi.
serrated.a.h. INS FIN fish
'We went to catch fish with serrated arrowheads.'

(553) Swâsi ho su tomakriti.
serrated.a.h. INS FIN curassow
'We went hunting for curassows with serrated arrowheads.'

(554) Nãnpân.
macaw
'Macaws.'

(555) Rê= ∅= kwajãri.
1PL.ERG 3SG.ABS make
'That's what we did.'

(556) Rê= ∅= kwajãri inkjẽ-mẽrân swankjarân.
1PL.ERG 3SG.ABS make 1SG-PL.ERG ancient.ERG
'That's what we did, us ancients.'

(557) *Antigo* hẽ ti= ∅= wajãri.
ancient ERG 3SG.ERG 3SG.ABS make
'That's what the ancient did.'

(558) Swankjarân.
ancient.PL.ERG
'The ancients.'

(559) Kooma-kjarân pjoo, kowma-kjarân pjoo, jankja-pjârân.
now-PAU.ERG NEG now-PAU.ERG NEG this.NMLZ-PAU.ERG
'Those of today don't, those of today don't. Us.'

(560) Ka-mẽrân ka= rê= mã…
2SG-PL.DAT IRR 1SG.ERG DAT
'For you, I…'

(561) *Antigo*, ka-merân.
ancient 2SG-PL.DAT
'*Antigo*, for you.'

(562) Jankjarân, swankjarân.
this.NMLZ.ERG ancientPL.ERG
'Us, ancients.'

(563) Inkjẽ-mẽra pẽẽ 'swankjara.'
1SG-PL language ancient-PL
'In our language, *the ancients*.'

(564) Ja rê= kân= ∅= sũũ, Kuupêri.
this 2SG.ERG 2SG.DAT 3SG.ABS say Kuupêri
'I have told it to you, Kuupêri.'

(565) Rê= ∅= pãpã ho= jy= ∅= pjoo.
1SG.ERG 3SG.ABS all CAUS INTR 3SG.ABS NEG
'I'm done, it's over.'

(566) Rê= ∅= pãpã, ka= ti= ta= npa ka hẽ.
1SG.ERG 3SG.ABS all IRR NSPK COND hear 2SG ERG
'I'm done, you will listen to it.'

(567) Jy= ∅= pjoo.
INTR 3SG.ABS NEG
'It's over.'

Bibliography

Adger, David & Daniel Harbour. 2007. Syntax and syncretisms of the Person Case Constraint. *Syntax* 10. 2–37.

Alves, Flávia. 2004. *O timbira falado pelos Canela Apaniekrá: uma contribuição aos estudos da morfossintaxe de uma língua Jê*. Campinas: Universidade Estadual de Campinas PhD thesis.

Alves, Flávia. 2010. Evolution of alignment in Timbira. *IJAL* 76(4). 439–475.

Alves, Flávia & Spike Gildea. 2016. Reconstructing the source of nominative-absolutive alignment in two Amazonian language families. In Eugenio Lujón Jóhanna Barðdal & Spike Gildea (eds.), *Reconstructing grammar: cognates and directionality*. Leiden: Brill.

Anagnastopoulou, Elena. 2008. Notes on the Person Case Constriant in Germanic (with special reference to German). In Roberta d'Alessandro, Susann Fischer & Gunnar Hrafn Hrafnbjargarson (eds.), *Person Restrictions*. Berlin: Mouton de Gruyter.

Arregi, Karlos & Andrew Nevins. 2007. Obliteration vs. impoverishment in the Basque g-/z- constraint. In T. Scheffier (ed.), *Penn linguistics colloquium special session on distributed morphology*, 1–14. Philadelphia: Penn Linguistics Club.

Baker, Mark. 1988. *Incorporation: a theory of grammatical function changing*. Chicago: University of Chicago Press.

Baker, Mark. 1996. *The polysynthesis parameter*. New York: Oxford University Press.

Baker, Mark. 2014. On dependent ergative case (in Shipibo) and its derivation by phase. *Linguistic Inquiry* 45. 341–380.

Baker, Mark. 2015. *Case: its principles and its parameters* (Cambridge Studies in Linguistics). Cambridge University Press.

Baker, Mark & Jonathan Bobaljik. 2017. On inherent and dependent theories of ergative case. In Diane Massam Jessica Coon & Lisa Travis (eds.), *Oxford Handbook of Ergativity*, 111–134. Oxford: Oxford University Press.

Barbosa, Alexandre de Souza. 1918. Cayapó e panará. Manuscript.

Bardagil-Mas, Bernat. 2015. Tangled up in mood: Exploring Panará split ergativity. *Linguistics in the Netherlands* 32. 1–15.

Bardagil-Mas, Bernat. 2018. Unwrapping the Panará verb package. In Natalie Weber Megan Keough (ed.), *Proceedings of the Workshop on Structure and Constituency in the Languages of the Americas 21*. Vancouver: University of British Columbia.

Bardagil-Mas, Bernat. to appear. Number morphology in Panará. *Linguistic Variation*.

Bechelany, Fabiano Campelo. 2017. *Suasêri: a caça e suas transformações com os Panará*. Brasília: Universidade de Brasília PhD thesis.

Béjar, Susana & Milan Rezac. 2009. Cyclic Agree. *Linguistic Inquiry* 40(1). 35–73.

Bennis, Hans. 2007. Featuring the subject in Dutch imperatives. In Wim van der Wurff (ed.), *Imperative Clauses in Generative Grammar*. Amsterdam: John Benjamins.

Bertoni, Moisés Santiago. 1916. Influencia de la lengua guaraní en Sud-América y Antillas. Manuscript.

Bobaljik, Jonathan D. 1993. On ergativity and ergative unergatives. In C. Phillips (ed.), *Papers on case and agreement II*, 45–88. Cambridge, MA: MIT Working Papers in Linguistics.

Bonet, Eulàlia. 1991. *Morphology after syntax: pronominal clitics in Romance languages*. Cambridge, MA: MIT PhD thesis.

Bonet, Eulàlia. 2008. The Person-Case constraint and repair strategies. In Roberta d'Alessandro, Susann Fischer & Gunnar Hrafn Hrafnbjargarson (eds.), *Person Restrictions* (Interface Explorations). Berlin: Mouton de Gruyter.

Bošković, Željko. 2007. On the locality and motivation of Move and Agree: An even more minimal theory. *Linguistic Inquiry* 38. 589–644.

Bossi, Bartolomé. 1863. *Viaje pintoresco por los rios Paraná, Paraguay, Sn. Lorenzo, Cuyabá y el Arino tributário Del grande Amazonas, con la description de la província de Mato Grosso bajo su aspecto físico, geográfico, mineralojico y sus producciones naturales*. Paris: Dupray de la Mahérie.

Bruening, Benjamin. 2007. On diagnostics of structural case and the nature of ergative case. Manuscript.

Camargo, Nayara da Silva. 2015. *Tapayuna (Jê): Aspectos morfossintáticos, históricos e sociolinguísticos*. Campinas: Universidade Estadual de Campinas PhD thesis.

Campbell, Amy. 2012. *The morphosyntax of discontinuous exponence*. University of California, Berkeley PhD thesis.

Cardinaletti, Anna & Ian Roberts. 2002. Clause Structure and X-Second. In Guglielmo Cinque (ed.), *Functional structure in DP and IP* (The Cartography of Syntactic Structures), 123–166. Oxford University Press.

Carvalho, Fernando O. de & Gean N. Damulakis. 2015. The structure of Akroá and Xakriabá and their relation to Xavante and Xerente: A contribution to the historical linguistics of the Jê languages. *LIAMES* 15(1). 17–46.

Chomsky, Noam. 1965. *Aspects of the theory of syntax*. Cambridge: The MIT Press.

Chomsky, Noam. 1973. Conditions on transformations. In Stephen Anderson & Paul Kiparsky (eds.), *A Festschrift for Morris Halle*, 232–286. New York: Holt, Rinehart & Winston.

Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.

Chomsky, Noam. 1982. *Some concepts and consequences of the theory of government and binding*. Cambridge, MA: The MIT Press.

Chomsky, Noam. 1991. Some notes on economy of derivation and representation. In R. Freidin (ed.), *Principles and parameters in comparative syntax*, 417–454. Cambridge, MA: MIT Press.

Chomsky, Noam. 1994. *Bare phrase structure* (MIT Working Papers in Linguistics). The MIT Press.

Chomsky, Noam. 2000. Minimalist inquiries: The framework. In David Michaels Roger Martin & Juan Uriagereka (eds.), *Step by step: Essays on Minimalist Syntax in honor of Howard Lasnik*, 89–155. Cambridge, MA: The MIT Press.

Chomsky, Noam. 2001. Derivation by phase. In M. Kenstovicz (ed.), *Ken Hale: A life in language*, 1–52. Cambridge, MA: The MIT Press.

Cinque, Guglielmo. 1990. *Types of Ā-dependencies* (Linguistic inquiry monographs). MIT Press.

Cinque, Guglielmo. 2004. ''Restructuring" and functional structure. In Adriana Belletti (ed.), *Structures and beyond: the cartography of syntactic structures*, vol. 3, 132–191. Oxford: Oxford University Press.

Clem, Emily. 2017. Amahuaca ergative as agreement with multiple heads. Manuscript.

Comrie, Bernard. 1978. Ergativity. In Winfred P. Lehmann (ed.), *Syntactic typology: studies in the phenomenology of language*, 329–394. Austin: University of Texas Press.

Coon, Jessica. 2013. TAM split ergativity. *Language and Linguistics Compass* 7(3). 171–200.

Coon, Jessica & Andrés Salanova. 2009. Nominalization and predicate-fronting: two sources of ergativity. *University of Pennsylvania Working Papers in Linguistics* 15(1).

Corbett, Greville G. 2000. *Number* (Cambridge Textbooks in Linguistics). Cambridge University Press.

D'Angelis, Wilmar da Rocha. 1998. *Traços de modo e modos de traçar geometrias: línguas Macro-J̌ & teoria fonológica*. Campinas: Universidade Estadual de Campinas PhD thesis.

Davis, Irvine. 1966. Comparative Jê phonology. *Estudos Lingüísticos: Revista Brasileira de Lingüística Teórica e Aplicada* 1(2). 10–24.

Deal, Amy Rose. 2010. Ergative case and the transitive subject: A view from Nez Perce. *Natural Language and Linguistic Theory* 28. 73–120.

Deal, Amy Rose. 2016. Syntactic ergativity as case discrimination. In Aaron Kaplan, Abby Kaplan, Miranda K. McCarvel & Edward J. Rubin (eds.), *Proceedings from WCCFL 34*, 141–150.

Deal, Amy Rose. 2017. Countability distinctions and semantic variation. *Natural Language Semantics* 25(2).

Deal, Amy Rose. to appear. Raising to ergative: remarks on applicatives of unaccusatives. *Linguistic Inquiry*.

Dixon, Robert M. W. 1979. Ergativity. *Language* (55). 59–138.

Dixon, Robert M. W. 1994. *Ergativity*. Cambridge: Cambridge University Press.

Dourado, Luciana. 1990. *Estudo preliminar da fonêmica panará*. Brasilia: Universidade de Brasíla MA thesis.

Dourado, Luciana. 1993. Manuscript field notes.

Dourado, Luciana. 2001. *Aspectos morfossintáticos da língua panará (jê)*. Campinas: Universidade Estadual de Campinas PhD thesis.

Dourado, Luciana. 2003. Ergatividade e transitividade em Panará. In Francesc Queixalós (ed.), *Ergatividade na Amazônia II*. Brasilia: UnB.

Dourado, Luciana. 2004. O avanço de oblíquos em panará. *LIAMES* 4. 43–50.

Dourado, Luciana. 2007. A expressão da negação em Panará. In Aryon Rodrigues & A.S.A.C. Cabral (eds.), *Línguas e culturas Macro-J̌ê*, 139–152. Brasilia: Editora Universidade de Brasília/Finatec.

Dourado, Luciana & Spike Gildea. 2008. Object Relations in Panará (Jê). Syntax of the World's Languages III. Freie Universität Berlin.

Ehrenreich, Paul. 1891. Beiträge zur Völkerkunde Brasiliens. *Veröffentlichungen aus dem Königlischen Museum für Völkerkunde* 2(1-2). 1–80.

Epps, Patience, Claire Bowern, Cynthia Hansen, Jane Hill & Jason Zentz. 2012. On numeral complexity in hunter-gatherer languages. *Linguistic Typology* 16. 39–107.

Estevam, Adriana Machado. 2009. Forma nominal do verbo em xavante. In Eliane Mara Silveira (ed.), *Anais do SILEL*, vol. 1. Uberlândia: EDUFU.

Estevam, Adriana Machado. 2011. *Morphosyntaxe du xavante*. Paris: Denis Diderot University PhD thesis.

Ewart, Elizabeth. 2000. *Living with each other : selves and alters amongst the Panará of central Brazil*. London: London of Economics PhD thesis.

Ferreira, Helder Perri. 2017. *Yanomama clause structure*. Radboud University Nijmegen PhD thesis.

Gakran, Nanbla. 2005. *Aspectos morfossintaticos da lingua laklãnõ (xokleng)*. Campinas: Universidade Estadual de Campinas PhD thesis.

García, Diego. 1526. *Memoria de la navegación que hice este viaje en la parte del mar océano dende que salí de la ciudad de la Coruña, que allí me fue entregada la armada, por los oficiales de Su Majestad, que fue en el año de 1526, y firma: Diego García, Capitán General*. Reprint, Manuel Ricardo Trelles (ed.). Imprenta del Porvenir, Buenos Aires:. 1953.

Giraldin, Odair. 1997. *Cayapó e Panará: luta e sobrevivência de um povo Jê no Brasil central*. Campinas: Editora Unicamp.

Götze, Michael, Cornelia Endriss, Stefan Hinterwimmer, Ines Fiedler, Svetlana Petrova, Anne Schwarz, Stavros Skopeteas, Ruben Stoel & Thomas Weskott. 2007. Information structure. In S. Dipper, M. Götze & S. Skopeteas (eds.), *Information structure in cross-linguistic corpora: annotation guidelines for morphology, syntax, semantics, and information structure*, (ISIS Working papers of the SFB), 147–187. Potsdam: Universitätsverlag Potsdam: Cambridge University Press.

Hale, Ken. 2001. Ulwa (Southern Sumu): The beginnings of a language research project. In Paul Newman & Martha Ratliff (eds.), *Linguistic fieldwork*, 76–101. Cambridge, UK: Cambridge University Press.

Halle, Morris. 1997. Distributed morphology: Impoverishment and fission. In Yoonjung Kang Benjamin Bruening & Martha McGinnis (eds.), *Mitwpl 30: papers at the interface*, 425–449. Cambridge, MA: MIT.

Ham, Patricia. 1961. *Apinayé grammar* (Arquivo Lingüístico). Summer Institute of Linguistics.

Harley, Heidi & Elizabeth Ritter. 2002. Person and in pronouns: a feature-geometric analysis. *Language* 78(3). 482–526.

Heelas, Richard. 1979. *The social of the Panara: a Gê tribe of central Brazil*. Oxford University PhD thesis.

Hemming, John. 1970. *Conquest of the Incas*. London: Pan MacMillan.

Hemming, John. 1978. *Red Gold: The Conquest of the Brazilian Indians*. Southampton: The Camelot Press, Ltd.

Hernández-Green, Néstor. 2016. Registration versus applicative constructions in acazulco otomi. *International of American Linguistics* 82(3). 353–383.

Instituto Socioambiental. 2017. Povos Indígenas no Brasil. Online. http://pib.socioambiental.org.

Instituto Socioambiental (ISA). 2012. *Kisêdjê Kapere: livro para alfabetização na língua suyá*, vol. 68. Brasilia: Instituto Socioambiental.

Jenks, Peter & Hannah Sande. 2017. Dependent accusative case and caselessness in Moro. In *Proceedings of NELS 47*. UMass.

Johannessen, Janne Bondi. 1998. *Coordination* (Oxford Studies in Comparative Syntax). Oxford: Oxford University Press.

Jolkesky, Marcelo Pinho de Valhery. 2010. *Reconstrução fonológica e lexical do proto-jê meridional*. Campinas: Universidade Estadual de Campinas MA thesis.

Kayne, Richard. 1989. Facets of Romance Past Participle Agreement.

Keenan, Edward L. 1976. Towards a universal definition of subject. In Charles N. Li (ed.), *Subject and topic*, 303–333. New York: Academic Press.

Klyve, Gregory. 2002. *Latin Grammar*. McGraw Hill Higher Education.

Kornfilt, Jaklin & Omer Preminger. 2015. Nominative as *no case at all*: an argument from raising-to-ACC in Sakha. *Proceedings of the 9th Workshop on Altaic Formal Linguistics (WAFL 9)* (76). 109–120.

Kratzer, Angelika. 1996. Severing the external argument from its verb. In Johan Rooryck & Laurie Zaring (eds.), *Phrase structure and the lexicon*, 109–137. Dordrecht, The Netherlands: Kluwer Academic Publishers.

Krifka, Manfred. 2004. Bare NPs: Kind-referring, Indefinites, Both, or Neither? In O. Bonami & P. C. Hofherr (eds.), *Empirical issues in formal syntax and semantics*, 111–132. Springer.

Laka, Itziar. 2006a. Deriving split-ergativity in the progressive. In A. Johns et al. (ed.), *Ergativity*, 173–195. Dordrecht: Springer.

Laka, Itziar. 2006b. On the nature of case in Basque: structural or inherent? In H. Broekhuis et al. (ed.), *Organizing grammar*, 374–382. Berlin: Mouton de Gruyter.

Lapierre, Myriam. 2016. Predicting Vowel Systems: An Acoustic Analysis of the Vowels of Mebêngôkre and Panará. In *Supplemental proceedings of the*

2015 annual meeting on phonology. Washington, DC: Linguistic Society of America.

Lapierre, Myriam & Bernat Bardagil-Mas. 2018. A phonological analysis of Panará. Manuscript.

Legate, Julie Anne. 2008. Morphological and Abstract Case. *Linguistics Inquiry* 39(1). 55–101.

Legate, Julie Anne. 2012. Types of ergativity. *Lingua* 122(3). 181–191.

Lowie, Robert. 1946. The southern cayapó. In *Handbook of South American Indians I: The marginal tribes*, vol. 1, 519–520. Washington.

Mahajan, Anoop. 1994. The ergativity parameter: have/be alternation, word order and split ergativity. In Mercè González (ed.), *Proceedings of the 24th conference of the North East Linguistic Society (NELS 24)*, vol. 1, GLSA, 317–331. Amherst, MA: Cambridge University Press.

Marantz, Alec. 1991. Case and licensing. In G. F. Westphal, B. Ao & H.R. Chae (eds.), *Proceedings of the Eighth Eastern States Conference on Linguistics*, 234–253.

Mattissen, Johanna. 2003. *Dependent-Head Synthesis in Nivkh: A Contribution to a Typology of Polysynthesis*. Amsterdam: John Benjamins Publishing Company.

Mattissen, Johanna. 2004. A structural typology of polysynthesis. *Word* 55(2). 189–216.

Maybury-Lewis, David. 1967. *Akwẽ-Shavante Society*. Oxford: Oxford University Press.

Monserrat, Ruth Maria Fonini. 1994. Linguas indigenas no brasil contemporaneo. In Luis Donisete Benzi Grupioni (ed.), *Indios no Brasil*, vol. 1, 93–104. Brasilia: MEC.

Nascimento, Márcia. 2013. *Tempo, modo, aspecto e evidencialidade em Kaingang*. Rio de Janeiro: UFRJ MA thesis.

Nash, Lea & Alain Rouveret. 2002. Cliticization as unselective attract. *Catalan Journal of Linguistics* 1(0). 157–199.

Nevins, Andrew. 2007. The representation of third person and its consequences for person-case effects. *Natural Language & Linguistic Theory* 25. 273–313.

Nevins, Andrew. 2011. Multiple agree with clitics: Person complementarity vs omnivorous number. *Natural Language & Linguistic Theory* 29(4). 939–971.

Nimuendajú, Curt. 1952. Os górotire. *Revista do Museu Paulista* 6. 429–451.

Nonato, Rafael. 2010. The Kĩsêdjê data and some relevant literature. Manuscript.

Nonato, Rafael. 2014. *Clause-chaining, switch-reference and coordination*. Cambridge, MA: Massachusetts Institute of Technology PhD thesis.

Nonato, Rafael. 2016. Where does possession take place? In Emily Sadlier-Brown, Erin Guntly & Natalie Weber (eds.), *Proceedings of the Workshop on Structure and Constituency in the Languages of the Americas 20*, vol. 43 (University of British Columbia Working Papers in Linguistics), 71–81. Vancouver: University of British Columbia.

Oliveira, Christiane Cunha de. 2005. *The language of the Apinajé people of Central Brazil*. University of Oregon PhD thesis.

Paula, Luís Roberto de. 2009. Xerente. In *Povos Indígenas no Brasil*. Instituto Socioambiental. http://pib.socioambiental.org/pt/povo/xerente.

Perlmutter, David. 1978. Impersonal passives and the unaccusative hypothesis. In Jeri J. Jaeger, Anthony C. Woodbury, Farrell Ackerman, Christine Chiarello, Orin D. Gensler, John Kingston, Eve E. Sweetser, Henry Thompson & Kenneth W. Whistler (eds.), *Proceedings of the 4th Annual Meeting of the Berkeley Linguistics Society*, 157–189. Berkeley: University of California, Berkeley.

Peterson, David. 2006. *Applicative Constructions*. Cambridge, MA: Oxford University Press.

Pinkster, Harm. 2015. *The Oxford Latin Syntax: Volume 1: The Simple Clause*. Oxford: Oxford Scholarship Online.

Pohl, Johann Emanuel. 1832–37. *Reise im innern von brasilien*. Vienna: 2 vols.

Pollock, Jean-Yves. 2017. Verb movement, Universal Grammar, and the structure of IP. *Linguistic Inquiry* 20. 365–424.

Preminger, Omer. 2012. The absence of an implicit object in unergatives: new and old evidence from Basque. *Lingua* 122(3). 278–288.

Preminger, Omer. 2013. That's not how you agree: a reply to Zeijlstra. *The Linguistic Review* 30. 491–500.

Preminger, Omer. 2014. *Agreement and its failures* (Linguistic Inquiry Monographs 68). Cambridge, MA: MIT Press.

Preminger, Omer. to appear. What the PCC tells us about "abstract" agreement, head movement, and locality. *Glossa*. http://ling.auf.net/lingbuzz/003221.

Pretorius, Erin. 2017. *Spelling out P: A unified syntax of Afrikaans adpositions and V-particles*. Utrecht: Utrecht University PhD thesis.

Pylkkänen, Liina. 2008. *Introducing arguments*. Cambridge, MA: The MIT Press.

Rackowski, Andrea & Norvin Richards. 2005. Phase edge and extraction: a tagalog case study. *Linguistic Inquiry* 36. 565–599.

Radt, Stefan. 1948. Noch Viel Mehr Textkritisches Zu Diodor. *Mnemosyne* 68(2). 254–284.

Reis Silva, Maria Amélia. 2001. *Pronomes, ordem e ergatividade em Mẽbêngôkre*. Campinas: Universidade Estadual de Campinas MA thesis.

Ritter, Elizabeth & Martina Wiltschko. 2009. Varieties of INFL: Tense, Location, and Person. In H. Broekhuis, J. Craenenbroek & H. van Riemsdijk (eds.), *Alternatives to cartography*. Berlin, New York: Mouton de Gruyter.

Ritter, Elizabeth & Martina Wiltschko. 2014. The composition of infl. *Natural Language & Linguistic Theory* 32(4). 1331–1386. 10.1007/s11049-014-9248-6.

Rizzi, Luigi. 1982. Dordrecht: Foris.

Rizzi, Luigi. 1986. Null Ojects in Italian and the theory of *pro*. *Linguistic Inquiry* 17(3). 501–557.

Rizzi, Luigi. 1997. The fine structure of the left periphery. In Liliane Haegeman (ed.), *Elements of grammar*, 281–337. Dordrecht: Kluwer.

Rocha D'Angelis, Wilmar da. 2004. Concordância verbal de número em Kaingáng: algumas pistas. *LIAMES* (4). 72–81.

Rodrigues, Aryon. 1953. Morfologia do verbo Tupi. *Letras* 1. 121–52.

Rodrigues, Aryon. 1999. Macro-Jê. In Robert M. W. Dixon & Alexandra Aikhenvald (eds.), *The Amazonian languages*. Cambridge University Press.

Rodrigues, Aryon. 2010. A case of affinity among Tupi, Karíb, and Macro-Jê. *Revista Brasileira de Linguıstica Antropológica* 1. 139–167.

Rodrigues, Aryon & Luciana Dourado. 1993. Panará: identificação lingüística dos Krena-Akarore com os Cayapó do Sul. *Reunião Anual da Sociedade Brasileira para o Progresso da Ciência* 2. 505.

Saint-Hilaire, Auguste de. 1830–51. *Voyages dans l'intérieur du Brésil*. Paris: 4 parts.

Salanova, Andrés. 2007. *Nominalizations and aspect*. Cambridge, MA: Massachusetts Institute of Technology PhD thesis.

Salanova, Andrés. 2011a. Relative clauses in Mẽbengokre. In Rik van Gijn, Katharina Haude & Pieter Muysken (eds.), *Subordination in Native South-American Languages*, 45–78. Bogotá: John Benjamins.

Salanova, Andrés. 2011b. Semántica causativa, sintaxis aplicativa. In Francesc Queixalós (ed.), *Incremento de valencia en las lenguas amazónicas*, 157–190. Bogotá: Instituto Caro y Cuervo.

Salanova, Andrés. 2017. Ergativity in Jê languages. In Jessica Coon, Diane Massam & Lisa Travis (eds.), *Oxford Handbook of Ergativity*. New York: Oxford University Press.

Santos, Ludoviko Carnasciali dos. 1997. *Descrição de aspectos morfossintáticos da língua Suyá/Kĩsêdjê, família Jê*. Florianópolis: Universidade Federal de Santa Catarina PhD thesis.

Schwartzman, Stephan. 1988. *The Panara of the Xingu National Park: the transformation of a society*. University of Chicago PhD thesis.

Schwartzman, Stephan. 1995. The Panará: Indigenous territory and environmental protection in the Amazon. In *Local heritage in the changing tropics: Innovative Strategies for natural resource management and control, Yale School of Forestry and Environmental Studies 98*, 66–85. New Haven, CT: Yale University Publishing MIS.

Sheehan, Michelle. 2017. Parametrizing ergativity: an inherent case approach. In Jessica Coon, Diane Massam & Lisa Travis (eds.), *The handbook of ergativity*. Oxford: Oxford University Press.

Silverstein, Michael. 1976. Hierarchy of features and ergativity. In R. M. W. Dixon (ed.), *Grammatical Categories in Australian Languages*, 112–171. Canberra: Australian National University.

Stout, Mickey & Ruth Thomson. 1971. Kayapó narrative. *International Journal of American Linguistics* 37(4). 250–256.

Tabosa, Luciana Pereira & Ludoviko dos Santos. 2013. Orações completivas da língua kaingang. *E-scrita* 4(3). 232–246.

Trask, Robert Lawrence. 1979. On the origin of ergativity. In Frans Plank (ed.), *Ergativity*, 385–406. New York: Academic Press.

Travis, Lisa. 1984. *Parameters and effects of word order variation*. Cambridge, MA: MIT PhD thesis.

Turner, Terence. 1992. Os Mebengokre Kayapó: história e mudança social, de comunidades autônomas para a coexistência interétnica. In Manuela Carneiro da Cunha (ed.), *História dos índios no brasil*, 311–338. São Paulo: Companhia das Letras.

Urban, Greg. 1985. Ergativity and Accusativity in Shokleng (Gê). *International Journal of American Linguistics* (16). 164–187.

Van der Voort, Hein & Eduardo Ribeiro. 2010. Nimuendajú was right: The inclusion of the Jabuti language family in the Macro-Jê stock. *International Journal of American Linguistics* 76(4). 517–570.

Wiesemann, Ursula. 1967. *Introdução na língua kaingáng*. Rio de Janeiro: SIL.

Wiesemann, Ursula. 1972. *Die Phonologische und Grammatische Struktur der Kaingáng-Sprache* (Janua Linguarum: Series Practica). The Hague: Berlin: Mouton de Gruyter.

Wiesemann, Ursula. 1978. Os dialetos da língua kaingáng e o xokléng. In Ursula Wiesemann (ed.), *Arquivos de anatomia e antropologia*, 199–217. Rio de Janeiro: Instituto de Antropologia Prof. Souza Marques.

Wiesemann, Ursula. 1986. The pronoun systems of some Jê and Macro Jê languages. In Ursula Wiesemann (ed.), *Pronominal systems*, 359–380. Tübingen: Gunter Narr Verlag.

Wood, Jim. 2017. The accusative-subject generalization. *Syntax* 20(3). 249–291.

Woolford, Ellen. 2006. Lexical Case, Inherent Case, and Argument Structure. *Linguistic Inquiry* 37. 111–130.

Yip, Moira, Joan Maling & Ray Jackendoff. 1987. Case in tiers. *Language* 63(2). 217–250.

Zaenen, Annie, Joan Maling & Höskuldur Thráinsson. 1985. Case and Grammatical Functions: The Icelandic Passive. *Natural Language & Linguistic Theory* 3(4). 441–483.

Zeijlstra, Hedde. 2012. There is only one way to agree. *The Linguistic Review* 29. 491–539.

Zeijlstra, Hedde. 2017. Labeling: reinstalling 'selection by projection'. Selectionfest. Leibniz-ZAS, Berlin.

Zwart, Jan-Wouter. 2006. Structural case and dependency marking: a neo-Jakobsonian view. *Proceedings from the Parasessions of the Forty-second Meeting of the Chicago Linguistic Society* 42(2). 77–92.

Zwart, Jan-Wouter. 2011. *The syntax of Dutch* (Cambridge Syntax Guides). Cambridge University Press.

Samenvatting in het Nederlands

Dit boek bevat een diepgaande analyse van de morfosyntaxis van naamval en congruentie in het Panará (*panãra*, 'zij die zijn'), een taal die behoort tot de Jê taalfamilie. Het Panará wordt gesproken door 500-600 mensen die op het moment vier dorpen bewonen in het *Terra Indígena Panará*, dat zich bevindt tussen de staten Mato Grosso en Pará, in Centraal Brazilië. Aan de ene kant vertoont het Panará eigenschappen die typisch zijn voor Jê talen: de lexicale overeenkomsten, de fonemische inventaris, de fonologische processen en het algemene morfologische profiel laten allemaal elementen zien die men in iedere Jê taal verwacht terug te vinden. Aan de andere kant zijn er radicale verschillen tussen het Panará en de rest van de Jê talen als we kijken naar constituentvolgorde, patronen in naamvalstoekenning en inflectionele morfologie op werkwoorden.

Het doel van dit proefschrift is te focussen op de kenmerkende morfosyntactische eigenschappen van het Panará en hiervan zowel een beschrijving als analyse te geven. Om dit te kunnen doen, heb ik tijdens mijn promotietraject acht maanden als gast van de Panará in het dorp Nãsepotiti (in het Terra Indígena Panará) geleefd. Mijn veldwerk bij de Panará richtte zich op het verzamelen van informatie over de grammatica van de taal, met een speciale aandacht voor naamval en congruentie. Dit heeft ook geleid tot een verzameling taaldata die beschikbaar is gesteld in het Archief voor Bedreigde Talen van de SOAS University of London (Endangered Languages Archive).[1]

Het boek bestaat uit twee delen. Het eerste deel geeft een beschrijving van het Panará met daarin een algemeen overzicht van de grammatica (hoofdstuk 2), van de naamvalstoekenning in de Jê talen in het algemeen en het

1. https://elar.soas.ac.uk/Collection/MPI945311

Panará in het bijzonder (hoofdstuk 3) en van de syntactische eigenschappen van oblique elementen—de elementen die niet gemarkeerd zijn met de kern naamvallen (hoofdstuk 4). In het tweede deel van het boek ligt de nadruk op het geven van een generatieve analyse van grammaticale naamval (hoofdstuk 5), referentiële morfologie en congruentie (hoofdstuk 6). Afsluitend geef ik een samenvatting van de problemen en inzichten die in dit proefschrift zijn blootgelegd en bespreek ik waar toekomstig onderzoek zich op kan richten (hoofdstuk 7).

Om zowel een uitgebreide beschrijving van naamvals- en congruentiekenmerken in het Panará te kunnen geven, als te onderzoeken hoe deze kenmerken geanalyseerd kunnen worden binnen de huidige theoretische benadering van het generatief minimalistische onderzoeksprogramma, begin ik met een grondige beschrijving van de taaldata, waarbij ik verbanden leg met gelijksoortige kenmerken in andere talen van de Jê taalfamilie, waarna ik verder ga met een syntactische discussie die uiteenzet hoe de data het best geanalyseerd wordt binnen het genoemde theoretisch kader.

Vanuit het oogpunt van analyses binnen de vergelijkende taalwetenschap, werd het Panará lange tijd gezien als vreemde eend in de bijt binnen de Jê taalfamilie. Zoals hoofdstuk 3 laat zien, is dit vooral van toepassing op de twee grammaticale concepten die voorkomen in de titel van dit proefschrift, namenlijk naamval en congruentie. Hoewel ergatieve naamvalsmarkering in de klassieke Jê talen uitsluitend voorkomt in de aanwezigheid van genominaliseerde predicaten en daarmee valt binnen het bredere concept van de zogenaamde *ubiquitous* ergativiteit die crosslinguïstisch veelvoorkomend is, heeft het Panará een regelmatige ergatieve naamvalsmarkering die naar boven komt als gevolg van hoe de functionele structuur van finiete zinsdelen morfologisch tot uitdrukking komt (568).

(568) a. Joopy hẽ ti= ∅= krẽ swasĩrã.
jaguar ERG 3SG.ERG 3SG.ABS eten witlippekari
'De jaguar at een witlippekari.' (el)

b. [Patty hẽ ti= ∅= pĩra swasĩrã] rê=
Patty ERG 3SG.ERG 3SG.ABS doden witlippekari 1SG.ERG
∅= ku= krẽ.
3SG.ABS kauwen eten
'Ik at de witlippekari die Patty doodde.' (el)

De laatste jaren richt het debat rond de vraag welke grammaticale mechanismen gebruikt kunnen worden om de aanwezigheid van ergatieve naamval

te verklaren zich op twee mogelijke benaderingen. Als een geval van *inherente naamval* wordt de ergatief naamval lokaal toegekend door een functioneel hoofd. Als we de ergatief analyseren als *structurele naamval* wordt de markering toegekend op basis van de zinsstructuur, ofwel als een gevolg van de congruentieoperatie (*Agree*), *congruentie naamval* (Agree case), ofwel met als doel het onderscheiden van twee wedijverende ongemarkeerde elementen in de theorie van de *afhankelijke naamval* (dependent case). In hoofdstuk 5 beargumenteer ik dat het uitdrukken van afhankelijkheden tussen woordgroepen en functionele hoofden gelijksoortige voorspellingen kan maken als de voorspellingen die komen van bestaande analyses binnen de structurele naamval-benaderingen. Vanuit deze benadering kan het vasthouden van kenmerken die overeenkomen met een selecterend functioneel hoofd gebruikt worden om bij het uitspellen (Spell-out) van structuur op het niveau van lexicale insertie verschillende combinaties van diezelfde kenmerken af te leiden. Gezien het feit dat afhankelijkheid als functie van de syntactische derivatie een onafhankelijk bestaande relatie is, valt een mechanisme dat deze afhankelijkheid gebruikt om naamval af te leiden niet ten deel aan het stipulatieve karakter dat tot op een bepaalde hoogte wel aanwezig is in mechanismes die naamval afleiden binnen de kaders van de afhankelijke naamval en naamval als gevolg van de operatie Agree.

Het Panará is de enige polysynthetische taal binnen de Jê taalfamilie en dat is te zien aan het werkwoordcomplex dat een verzameling clitics bij zich draagt die refereren naar de verschillende deelnemers in de zin. Het polypersonalisme (congruentie met meerdere argumenten op hetzelfde werkwoord) in het Panará omvat cliticverdubbeling, D-verdubbeling (verdubbeling van lidwoorden)—van absolutieve, ergatieve, datieve en oblique deelnemers—en P-verdubbeling (verdubbeling van voorzetsels) van een bepaalde klasse voorzetselgroepen. Zoals ik bespreek in hoofdstuk 4 is P-verdubbeling slechts mogelijk met een bepaalde groep van de deelnemers in de zin die met een voorzetsel worden aangeduid. Een aantal van deze voorzetsels vertoont homonymie met oblique deelnemers waarbij de operatie P-verdubbeling niet kan worden uitgevoerd. Het achterzetsel *pêê* wordt hierbij het meest uitgebreid besproken en we zien dat er bij P-verdubbeling van *pêê* een malefactieve betekenis ontstaat, terwijl er met de statische vorm van het achterzetsel een ablatieve betekenis tot stand komt (569).

(569) a. Jy= ra= pêê= a= ty inkjẽ pêê.
INTR 1SG.ABS MAL 2SG.ABS sterven 1SG MAL
'Jij stierf ten nadele van mij.' (el)

b. Sâkjo jy= ∅= (*pêê=) ∅= pôô aty pêê.
Sâkjo INTR 3SG.ABS ABL 3SG.ABS aankomen bos ABL
'Sâkjo kwam aan vanuit het bos.' (el)

De voorgestelde generalisatie dat bij relationele voorzetselgroepen P-verdubbeling mogelijk is, terwijl dat bij statische voorzetselgroepen niet het geval is, wordt afgeleid in hoofdstuk 6 door voor te stellen dat P-verdubbelende voorzetselgroepen door applicatiefhoofden ingevoegd worden, terwijl statische voorzetselgroepen laat-ingevoegde (late-merged) adjuncten zijn. Het mechanisme dat ik voorstel om de in het Panará massaal aanwezige cliticverdubbeling af te leiden, is hoofdverplaatsing veroorzaakt door de congruentieoperatie Agree vanuit het functionele hoofd INFL. Dit mechanisme kan vervolgens ook voorspellen dat voorzetselgroepen die kunnen P-verdubbelen wel cliticizatie kunnen ondergaan, terwijl statische voorzetselgroepen te laat in de structuur worden ingevoegd om een keten te kunnen vormen met INFL.

De verbindende factor tussen naamval en congruentie in het Panará is de verwijzing naar argumenten in zinnen in de irrealis, beschreven in hoofdstuk 3. Er werd lang vanuit gegaan dat er een gedeeltelijke split bestond in de argumentstructuur (alignment), tussen naamwoordsgroepen met ergatiefmarkering en clitics met nominatiefmarkering in de irrealis. Ik heb echter beargumenteerd in hoofdstuk 6 dat een combinatie van factoren samenzweert om de daadwerkelijke naamval van clitics in het Panará te maskeren. Wijdverbreide discontinue realisatie van kenmerken, niet ongebruikelijk in systemen die gebruik maken van cliticverdubbeling, vertroebelt het beeld van de argumentstructuur van de clitics wanneer ze gecombineerd zijn met de gereduceerde exponentie van deelnemers in de irrealis. In deze analyse is er een systeem van verwijzing dat kenmerken van deelnemende elementen bijhoudt in een entailmentsysteem dat ten grondslag ligt aan congruentie van clitics binnen het werkwoordcomplex met hun bijbehorende naamwoordgroepen. Er is geen nominatief in het Panará: naamwoordgroepen zijn altijd gemarkeerd in een ergatief systeem, en clitics zijn een bonte verzameling van de morfologisch uitgedrukte deelnemerskenmerken.

Alhoewel het Panará overduidelijk trekken vertoont die niet goed passen binnen de rest van de Jê taalfamilie, is het vanuit een breder crosslinguïstisch perspectief zeker geen vreemde taal. Ik heb laten zien dat verplaatsing (raising) van het werkwoord naar INFL, feitelijk een versie van de traditionele V-naar-T-verplaatsing, kan verklaren dat de structuur van zinsdelen in het Panará niet hoofdfinaal is. Uit toekomstig diachroon onderzoek moet blijken wat de historische druk is geweest die ervoor zorgde dat de hoofdfinale zinsde-

len uit het Jê zijn geheranalyseerd als het werkwoordcomplex in het Panará. Intuïtief gezien lijkt het een redelijke aanname dat de pleonastische en emfatische verplaatsing van woordgroepen waar de Jê talen zo vatbaar voor zijn, ook aanwezig was in de eerdere stadia van het Panará, totdat de strakgeordende elementen in de zin opnieuw vormgegeven werden als het polysynthetische werkwoordcomplex.

Wat ik met dit boek heb getracht te bereiken is het plaatsen van het Panará in het hedendaagse landschap van taalwetenschappelijk onderzoek. Aan de ene kant is een groot gedeelte van de inheemse talen wereldwijd nog steeds niet voldoende gedocumenteerd en beschreven. Ik hoop goed op weg te zijn om dit gebrek aan kennis voor het Panará te verhelpen en ik hoop dat dit boek een beschrijving van de taaldata bevat die trouw blijft aan de taal. Aan de andere kant wordt er vaak opgemerkt dat veel belangrijke ontwikkelingen in de theoretische taalwetenschap hebben plaatsgevonden zonder bijdrage van niet-westerse talen. In dat opzicht hoop ik te hebben geïllustreerd dat talen zoals het Panará een uitstekende basis vormen voor het onderzoeken van huidige theoretische vraagstukken.

Resumo em português

O presente livro é a culminação de quatro anos dedicados ao estudo da língua dos *panãra* ("os que são"). O panará é uma língua pertenecente à familia linguística jê, um grupo de línguas faladas hoje no centro e no sul-este do Brasil. Por um lado, o panará apresenta várias característica típicamente jê: as correspondências lexicais, os inventários de fonêmas, os processos fonológicos e o perfil morfológico são tudos eles como se esperaria de qualquer língua jê. Pelo outro lado, a ordem de constituintes, os padrões de marcagem de caso e a morfologia verbal são radicalmente diferentes do que se observa no resto das línguas jê.

A minha pesquisa de doutorado centra-se em dar uma descrição exaustiva desses fenômenos, assim como analisar o lugar deles dentro da teoria linguística atual. Com esse objetivo, durante o meu doutorado passei oito mêses como um hóspede dos Panará na aldeia Nãsepotiti, dentro da Terra Indígena Panará (entre Pará e Mato Grosso). A minha pesquisa de campo entre os Panará focalizou-se na coleta de dados sobre a gramática da língua, em particular o caso e a concordância. Além disso, a minha pesquisa resultou em uma coleta de materiais para a documentação da língua panará, arquivados no Endangered Languages Archive.[1]

O livro é dividido em duas partes. A primeira parte apresenta uma descrição da língua panará. O capítulo 2 contém uma descrição geral da gramática panará. O capítulo 3 trata sobre a exponencia do caso gramatical em panará e nas línguas jê em geral. Finalmente, o capítulo 4 descreve o comportamento dos participantes oblíquos. Na segunda parte, o foco centra-se na análise gerativa do caso gramatical, no capítulo 5, e a morfologia de concordância, no capítulo

1. https://elar.soas.ac.uk/Collection/MPI945311

6. Finalmente, no capítulo 7 eu resumo as questões e aspectos que saíram à luz nessa dissertação, e contemplo futuras direções de pesquisa.

Com o objetivo de fornecer uma descrição meticulosa do caso e a concordância em panará, além de explorar a situação desses fenômenos dentro da teoria linguística atual, começo com uma descrição exaustiva dos dados. Nas situações nas quais é relevante, também estabeleço a relação com os fenômenos equivalentes nas línguas jê. Finalmente, ofereço uma discussão sobre as formas de capturar os dados dentro da teoria.

Desde a perspectiva comparativa dentro da família jê, o panará é frequentemente considerado uma língua jê um tanto esquisita. Como é apresentado no capítulo 3, isso é especialmente verdadeiro para as duas noções gramaticais no título da dissertação, o caso e a concordância. O caso ergativo clássico na maioria das línguas jê tem um vínculo com a presença de núcleos predicativos nominais e, por conseguinte, se acham dentro dos casos de ergatividade ubíqua, observados de forma cros-linguística. Porém, o panará apresenta caso ergativo uniformemente, baseado na exponencia da estrutura funcional das cláusulas finitas (570).

(570) Joopy hẽ ti= ∅= krẽ swasĩrã.
onça ERG 3SG.ERG 3SG.ABS comer queixada
'A onça comeu a queixada.' (el)

(571) [Patty hẽ ti= ∅= pĩra swasĩrã] rê= ∅=
Patty ERG 3SG.ERG 3SG.ABS matar queixada 1SG.ERG 3SG.ABS
ku= krẽ.
mascar comer
'Eu comi a queixada que Patty matou.' (el)

Nos últimos anos, o debate sobre os mecanismos gramaticais responsáveis pelo caso ergativo se centrou em dois enfoques. Se fosse um caso inerente, o ergativo seria atribuido de forma local por um núcleo funcional. Se fosse um caso estrutural, o ergativo seria atribuido como resultado da estrutura da cláusula, seja como consequência de uma operação Agree iniciada por um núcleo funcional (caso por Agree), ou com o objetivo de desambiguar entre dois sintagmas argumentais em competência (caso dependente). No capítulo 5 apresento a proposta que a exponencia de dependências entre constituintes e núcleos funcionais pode capturar predições semelhantes às previstas pelos mecanismos existentes de caso estrutural. Assim, a retenção de traços correspondentes aos núcleos funcionais que selecionam um sintagma como dependente pode ser usada para derivar combinações diferentes dos traços para

serem expressos morfológicamente na etapa de inserção de vocabulário. Como uma função da derivação, a dependência é uma relação que existe independentemente, o mecanismo que deriva o caso como uma exponencia dessa relação pode evitar uma parte da estipulação presente nos mecanismos que derivam o caso dependente ou o caso por Agree.

O panará é a única língua polissintética da família jê. A palavra verbal em Panará apresenta uma série de clíticos que concordam com participantes na cláusula. O polipersonalismo do panará, a referência a mais de um participante na morfologia verbal, inclui clíticos pronominais, D-doubling, e clíticos adposicionais, P-doubling. No capítulo 4 é descrito o fenómeno do P-doubling em panará, disponível somente para uma serie de participantes postposicionais, alguns homônimos com participantes postposicionais estáticos, sem poder cliticizar. Um exemplo apresentado é a postposição *pêê*: pode cliticizar quando tem uma semántica malefactiva, mais ela é estática quando tem uma semántica ablativa (572).

(572) a. Jy= ra= pêê= a= ty inkjẽ pêê.
INTR 1SG.ABS MAL 2SG.ABS morrer 1SG MAL
'Você morreu em detrimento de mim.' (el)

b. Sâkjo jy= ∅= (*pêê=) ∅= pôô aty pêê.
Sâkjo INTR 3SG.ABS ABL 3SG.ABS chegar mato ABL
'Sâkjo chegou do mato.' (el)

A generalização proposta que os PPs relacionais são legitimados para cliticizar e os PPs estativos são estáticos é argumentada no capítulo 6. A proposta apresentada é que os PPs cliticizantes são inseridos por núcleos aplicativos, e os PPs estáticos são adjuntos inseridos em uma etapa tardia da derivação. O mecanismo proposto para derivar a cliticização massiva existente em panará, o desplaçamento de núcleos de categorias D e P causado por uma operação Agree desde a categoria funcional Infl, pode ser também invocado para predecir que os PPs relacionais serão um alvo para a cliticização, mas os PPs estativos são inseridos tarde e não formam uma cadeia com Infl.

A pedra angular entre o caso e a concordância em panará é a morfologia verbal no modo irrealis, descrita no capítulo 3. Tradicionalmente considerada uma cisão parcial no alineamento da língua entre caso ergativo em modo realis e e caso nominativo em modo irrealis, eu argumento no capítulo 6 que uma série de elementos conspiram para mascarar o alineamento dos clíticos em panará. A presência de exponencia discontínua na língua, não excepcional em sistemas de clíticos, confunde a imagem do alineamento dos

clíticos quando combina-se com a exponencia reduzida de participantes no modo irrealis. Na análise proposta, um sistema de clíticos em panará opera em termos de traços de participante em uma relação de implicação. Não existe o caso nominativo em panará: os DPs sempre recebem caso em um alineamento ergativo, e os clíticos são um mosaico de exponencia de participantes.

Mesmo se o panará apresenta características não-jê, em uma perspectiva mais ampla ele não é uma língua esquisita. Tenho argumentado que o desplaçamento do verbo até Infl, uma versão do movimento V-to-T clássico, explica a estrutura sem verbo final das cláusulas panará. Futuras pesquisas na diacronia da sintaxe panará seguramente acenderão a luz sobre as pressões que levaram a língua a reanalisar a cláusula jê a verbo final como um complexo verbal. Intuitivamente, parece razoável que o uso de dislocações pleonásticas e emfáticas tão comuns nas línguas jê também era presente em panará. Em um momento dado, os elementos organizados de forma muito rígida foram restruturados como uma palavra verbal polissintética.

Com o presente livro eu tentei de conseguir colocar o panará no cenário das pesquisas linguísticas atuais. Por um lado, uma enorme maioria das línguas indígenas no mundo inteiro são gravemente faltas de documentação e descrição. Tenho a esperança que consegui remediar isso para o panará, e que a descrição gramatical proposta nesse livro seja fiel à língua falada pelos Panará. Pelo outro lado, uma parte importante dos desenvolvimentos na teoria linguística têm lugar com uma contribução meramente testimonial de línguas não-*mainstream*. Uma mensagem que espero ter transmitido é que as línguas como o panará são uma base excelente para a pesquisa de questões teóricas atuais.

Biography

Bernat Bardagil-Mas, Kuupêri of the Kwakjatantêra clan, was born on 26 January 1984 in Vic, Catalonia. He received a double BA in Translation and in Applied Linguistics from Pompeu Fabra University in Barcelona. He attended postgraduate training and received an MA diploma in Language Sciences from Denis Diderot University in Paris. Between 2012 and 2014 he was a part-time lecturer at the department of Translation and Language Sciences at Pompeu Fabra University.

In 2014 Bernat became a PhD candidate in linguistics at the University of Groningen's Center for Language and Cognition (CLCG), where he conducted research on his own PhD proposal on the morphosyntax of Panará (Jê, Brazil). In 2015 Bernat was a visiting researcher at the University of Ottawa, and in 2017 he was a visiting student researcher at the University of California, Berkeley. During the course of his PhD, Bernat spent several months doing fieldwork as a guest of the Panará in the village of Nãsepotiti. In 2018 he accepted a position as postdoctoral researcher at the University of California, Berkeley.

Groningen Dissertations in Linguistics (GRODIL)

1. Henriëtte de Swart (1991). *Adverbs of Quantification: A Generalized Quantifier Approach.*
2. Eric Hoekstra (1991). *Licensing Conditions on Phrase Structure.*
3. Dicky Gilbers (1992). *Phonological Networks. A Theory of Segment Representation.*
4. Helen de Hoop (1992). *Case Configuration and Noun Phrase Interpretation.*
5. Gosse Bouma (1993). *Nonmonotonicity and Categorial Unification Grammar.*
6. Peter I. Blok (1993). *The Interpretation of Focus.*
7. Roelien Bastiaanse (1993). *Studies in Aphasia.*
8. Bert Bos (1993). *Rapid User Interface Development with the Script Language Gist.*
9. Wim Kosmeijer (1993). *Barriers and Licensing.*
10. Jan-Wouter Zwart (1993). *Dutch Syntax: A Minimalist Approach.*
11. Mark Kas (1993). *Essays on Boolean Functions and Negative Polarity.*
12. Ton van der Wouden (1994). *Negative Contexts.*
13. Joop Houtman (1994). *Coordination and Constituency: A Study in Categorial Grammar.*
14. Petra Hendriks (1995). *Comparatives and Categorial Grammar.*
15. Maarten de Wind (1995). *Inversion in French.*
16. Jelly Julia de Jong (1996). *The Case of Bound Pronouns in Peripheral Romance.*
17. Sjoukje van der Wal (1996). *Negative Polarity Items and Negation: Tandem Acquisition.*
18. Anastasia Giannakidou (1997). *The Landscape of Polarity Items.*
19. Karen Lattewitz (1997). *Adjacency in Dutch and German.*

20. Edith Kaan (1997). *Processing Subject-Object Ambiguities in Dutch.*
21. Henny Klein (1997). *Adverbs of Degree in Dutch.*
22. Leonie Bosveld-de Smet (1998). *On Mass and Plural Quantification: The case of French 'des'/'du'-NPs.*
23. Rita Landeweerd (1998). *Discourse semantics of perspective and temporal structure.*
24. Mettina Veenstra (1998). *Formalizing the Minimalist Program.*
25. Roel Jonkers (1998). *Comprehension and Production of Verbs in aphasic Speakers.*
26. Erik F. Tjong Kim Sang (1998). *Machine Learning of Phonotactics.*
27. Paulien Rijkhoek (1998). *On Degree Phrases and Result Clauses.*
28. Jan de Jong (1999). *Specific Language Impairment in Dutch: Inflectional Morphology and Argument Structure.*
29. H. Wee (1999). *Definite Focus.*
30. Eun-Hee Lee (2000). *Dynamic and Stative Information in Temporal Reasoning: Korean tense and aspect in discourse.*
31. Ivilin P. Stoianov (2001). *Connectionist Lexical Processing.*
32. Klarien van der Linde (2001). *Sonority substitutions.*
33. Monique Lamers (2001). *Sentence processing: using syntactic, semantic, and thematic information.*
34. Shalom Zuckerman (2001). *The Acquisition of "Optional" Movement.*
35. Rob Koeling (2001). *Dialogue-Based Disambiguation: Using Dialogue Status to Improve Speech Understanding.*
36. Esther Ruigendijk (2002). *Case assignment in Agrammatism: a cross-linguistic study.*
37. Tony Mullen (2002). *An Investigation into Compositional Features and Feature Merging for Maximum Entropy-Based Parse Selection.*
38. Nanette Bienfait (2002). *Grammatica-onderwijs aan allochtone jongeren.*
39. Dirk-Bart den Ouden (2002). *Phonology in Aphasia: Syllables and segments in level-specific deficits.*
40. Rienk Withaar (2002). *The Role of the Phonological Loop in Sentence Comprehension.*
41. Kim Sauter (2002). *Transfer and Access to Universal Grammar in Adult Second Language Acquisition.*
42. Laura Sabourin (2003). *Grammatical Gender and Second Language Processing: An ERP Study.*

43. Hein van Schie (2003). *Visual Semantics.*
44. Lilia Schürcks-Grozeva (2003). *Binding and Bulgarian.*
45. Stasinos Konstantopoulos (2003). *Using ILP to Learn Local Linguistic Structures.*
46. Wilbert Heeringa (2004). *Measuring Dialect Pronunciation Differences using Levenshtein Distance.*
47. Wouter Jansen (2004). *Laryngeal Contrast and Phonetic Voicing: A Laboratory Phonology.*
48. Judith Rispens (2004). *Syntactic and phonological processing in developmental dyslexia.*
49. Danielle Bougaïré (2004). *L'approche communicative des campagnes de sensibilisation en santé publique au Burkina Faso: Les cas de la planification familiale, du sida et de l'excision.*
50. Tanja Gaustad (2004). *Linguistic Knowledge and Word Sense Disambiguation.*
51. Susanne Schoof (2004). *An HPSG Account of Nonfinite Verbal Complements in Latin.*
52. M. Begoña Villada Moirón (2005). *Data-driven identification of fixed expressions and their modifiability.*
53. Robbert Prins (2005). *Finite-State Pre-Processing for Natural Language Analysis.*
54. Leonoor van der Beek (2005). *Topics in Corpus-Based Dutch Syntax.*
55. Keiko Yoshioka (2005). *Linguistic and gestural introduction and tracking of referents in L1 and L2 discourse.*
56. Sible Andringa (2005). *Form-focused instruction and the development of second language proficiency.*
57. Joanneke Prenger (2005). *Taal telt! Een onderzoek naar de rol van taalvaardigheid en tekstbegrip in het realistisch wiskundeonderwijs.*
58. Neslihan Kansu-Yetkiner (2006). *Blood, Shame and Fear: Self-Presentation Strategies of Turkish Women's Talk about their Health and Sexuality.*
59. Mónika Z. Zempléni (2006). *Functional imaging of the hemispheric contribution to language processing.*
60. Maartje Schreuder (2006). *Prosodic Processes in Language and Music.*
61. Hidetoshi Shiraishi (2006). *Topics in Nivkh Phonology.*
62. Tamás Biró (2006). *Finding the Right Words: Implementing Optimality Theory with Simulated Annealing.*
63. Dieuwke de Goede (2006). *Verbs in Spoken Sentence Processing: Unraveling the Activation Pattern of the Matrix Verb.*
64. Eleonora Rossi (2007). *Clitic production in Italian agrammatism.*

65. Holger Hopp (2007). *Ultimate Attainment at the Interfaces in Second Language Acquisition: Grammar and Processing.*
66. Gerlof Bouma (2008). *Starting a Sentence in Dutch: A corpus study of subject- and object-fronting.*
67. Julia Klitsch (2008). *Open your eyes and listen carefully. Auditory and audiovisual speech perception and the McGurk effect in Dutch speakers with and without aphasia.*
68. Janneke ter Beek (2008). *Restructuring and Infinitival Complements in Dutch.*
69. Jori Mur (2008). *Off-line Answer Extraction for Question Answering.*
70. Lonneke van der Plas (2008). *Automatic Lexico-Semantic Acquisition for Question Answering.*
71. Arjen Versloot (2008). *Mechanisms of Language Change: Vowel reduction in 15th century West Frisian.*
72. Ismail Fahmi (2009). *Automatic term and Relation Extraction for Medical Question Answering System.*
73. Tuba Yarbay Duman (2009). *Turkish Agrammatic Aphasia: Word Order, Time Reference and Case.*
74. Maria Trofimova (2009). *Case Assignment by Prepositions in Russian Aphasia.*
75. Rasmus Steinkrauss (2009). *Frequency and Function in WH Question Acquisition. A Usage-Based Case Study of German L1 Acquisition.*
76. Marjolein Deunk (2009). *Discourse Practices in Preschool. Young Children's Participation in Everyday Classroom Activities.*
77. Sake Jager (2009). *Towards ICT-Integrated Language Learning: Developing an Implementation Framework in terms of Pedagogy, Technology and Environment.*
78. Francisco Dellatorre Borges (2010). *Parse Selection with Support Vector Machines.*
79. Geoffrey Andogah (2010). *Geographically Constrained Information Retrieval.*
80. Jacqueline van Kruiningen (2010). *Onderwijsontwerp als conversatie. Probleemoplossing in interprofessioneel overleg.*
81. Robert G. Shackleton (2010). *Quantitative Assessment of English-American Speech Relationships.*
82. Tim Van de Cruys (2010). *Mining for Meaning: The Extraction of Lexico-semantic Knowledge from Text.*
83. Therese Leinonen (2010). *An Acoustic Analysis of Vowel Pronunciation in Swedish Dialects.*
84. Erik-Jan Smits (2010). *Acquiring Quantification. How Children Use Semantics and Pragmatics to Constrain Meaning.*

85. Tal Caspi (2010). *A Dynamic Perspective on Second Language Development.*
86. Teodora Mehotcheva (2010). *After the fiesta is over. Foreign language attrition of Spanish in Dutch and German Erasmus Student.*
87. Xiaoyan Xu (2010). *English language attrition and retention in Chinese and Dutch university students.*
88. Jelena Prokić (2010). *Families and Resemblances.*
89. Radek Šimík (2011). *Modal existential wh-constructions.*
90. Katrien Colman (2011). *Behavioral and neuroimaging studies on language processing in Dutch speakers with Parkinson's disease.*
91. Siti Mina Tamah (2011). *A Study on Student Interaction in the Implementation of the Jigsaw Technique in Language Teaching.*
92. Aletta Kwant (2011). *Geraakt door prentenboeken. Effecten van het gebruik van prentenboeken op de sociaal-emotionele ontwikkeling van kleuters.*
93. Marlies Kluck (2011). *Sentence amalgamation.*
94. Anja Schüppert (2011). *Origin of asymmetry: Mutual intelligibility of spoken Danish and Swedish.*
95. Peter Nabende (2011). *Applying Dynamic Bayesian Networks in Transliteration Detection and Generation.*
96. Barbara Plank (2011). *Domain Adaptation for Parsing.*
97. Cagri Coltekin (2011). *Catching Words in a Stream of Speech: Computational simulations of segmenting transcribed child-directed speech.*
98. Dörte Hessler (2011). *Audiovisual Processing in Aphasic and Non-Brain-Damaged Listeners: The Whole is More than the Sum of its Parts.*
99. Herman Heringa (2012). *Appositional constructions.*
100. Diana Dimitrova (2012). *Neural Correlates of Prosody and Information Structure.*
101. Harwintha Anjarningsih (2012). *Time Reference in Standard Indonesian Agrammatic Aphasia.*
102. Myrte Gosen (2012). *Tracing learning in interaction. An analysis of shared reading of picture books at kindergarten.*
103. Martijn Wieling (2012). *A Quantitative Approach to Social and Geographical Dialect Variation.*
104. Gisi Cannizzaro (2012). *Early word order and animacy.*
105. Kostadin Cholakov (2012). *Lexical Acquisition for Computational Grammars. A Unified Model.*
106. Karin Beijering (2012). *Expressions of epistemic modality in Mainland Scandinavian. A study into the lexicalization-grammaticalization-pragmaticalization interface.*

107. Veerle Baaijen (2012). *The development of understanding through writing.*
108. Jacolien van Rij (2012). *Pronoun processing: Computational, behavioral, and psychophysiological studies in children and adults.*
109. Ankelien Schippers (2012). *Variation and change in Germanic long-distance dependencies.*
110. Hanneke Loerts (2012). *Uncommon gender: Eyes and brains, native and second language learners, & grammatical gender.*
111. Marjoleine Sloos (2013). *Frequency and phonological grammar: An integrated approach. Evidence from German, Indonesian, and Japanese.*
112. Aysa Arylova (2013). *Possession in the Russian clause. Towards dynamicity in syntax.*
113. Daniël de Kok (2013). *Reversible Stochastic Attribute-Value Grammars.*
114. Gideon Kotzé (2013). *Complementary approaches to tree alignment: Combining statistical and rule-based methods.*
115. Fridah Katushemererwe (2013). *Computational Morphology and Bantu Language Learning: an Implementation for Runyakitara.*
116. Ryan C. Taylor (2013). *Tracking Referents: Markedness, World Knowledge and Pronoun Resolution.*
117. Hana Smiskova-Gustafsson (2013). *Chunks in L2 Development: A Usage-based Perspective.*
118. Milada Walková (2013). *The aspectual function of particles in phrasal verbs.*
119. Tom O. Abuom (2013). *Verb and Word Order Deficits in Swahili-English bilingual agrammatic speakers.*
120. Gülsen Yılmaz (2013). *Bilingual Language Development among the First Generation Turkish Immigrants in the Netherlands.*
121. Trevor Benjamin (2013). *Signaling Trouble: On the linguistic design of other-initiation of repair in English conversation.*
122. Nguyen Hong Thi Phuong (2013). *A Dynamic Usage-based Approach to Second Language Teaching.*
123. Harm Brouwer (2014). *The Electrophysiology of Language Comprehension: A Neurocomputational Model.*
124. Kendall Decker (2014). *Orthography Development for Creole Languages.*
125. Laura S. Bos (2015). *The Brain, Verbs, and the Past: Neurolinguistic Studies on Time Reference.*
126. Rimke Groenewold (2015). *Direct and indirect speech in aphasia: Studies of spoken discourse production and comprehension.*

127. Huiping Chan (2015). *A Dynamic Approach to the Development of Lexicon and Syntax in a Second Language.*
128. James Griffiths (2015). *On appositives.*
129. Pavel Rudnev (2015). *Dependency and discourse-configurationality: A study of Avar.*
130. Kirsten Kolstrup (2015). *Opportunities to speak. A qualitative study of a second language in use.*
131. Güliz Güneş (2015). *Deriving Prosodic structures.*
132. Cornelia Lahmann (2015). *Beyond barriers. Complexity, accuracy, and fluency in long-term L2 speakers' speech.*
133. Sri Wachyunni (2015). *Scaffolding and Cooperative Learning: Effects on Reading Comprehension and Vocabulary Knowledge in English as a Foreign Language.*
134. Albert Walsweer (2015). *Ruimte voor leren. Een etnogafisch onderzoek naar het verloop van een interventie gericht op versterking van het taalgebruik in een knowledge building environment op kleine Friese basisscholen.*
135. Aleyda Lizeth Linares Calix (2015). *Raising Metacognitive Genre Awareness in L2 Academic Readers and Writers.*
136. Fathima Mufeeda Irshad (2015). *Second Language Development through the Lens of a Dynamic Usage-Based Approach.*
137. Oscar Strik (2015). *Modelling analogical change. A history of Swedish and Frisian verb inflection.*
138. He Sun (2015). *Predictors and stages of very young child EFL learners' English development in China.*
139. Marieke Haan (2015). *Mode Matters. Effects of survey modes on participation and answering behavior.*
140. Nienke Houtzager (2015). *Bilingual advantages in middle-aged and elderly populations.*
141. Noortje Joost Venhuizen (2015). *Projection in Discourse: A data-driven formal semantic analysis.*
142. Valerio Basile (2015). *From Logic to Language: Natural Language Generation from Logical Forms.*
143. Jinxing Yue (2016). *Tone-word Recognition in Mandarin Chinese: Influences of lexical-level representations.*
144. Seçkin Arslan (2016). *Neurolinguistic and Psycholinguistic Investigations on Evidentiality in Turkish.*
145. Rui Qin (2016). *Neurophysiological Studies of Reading Fluency. Towards Visual and Auditory Markers of Developmental Dyslexia.*

146. Kashmiri Stec (2016). *Visible Quotation: The Multimodal Expression of Viewpoint.*
147. Yinxing Jin (2016). *Foreign language classroom anxiety: A study of Chinese university students of Japanese and English over time.*
148. Joost Hurkmans (2016). *The Treatment of Apraxia of Speech. Speech and Music Therapy, an Innovative Joint Effort.*
149. Franziska Köder (2016). *Between direct and indirect speech: The acquisition of pronouns in reported speech.*
150. Femke Swarte (2016). *Predicting the mutual intelligibility of Germanic languages from linguistic and extra-linguistic factors.*
151. Sanne Kuijper (2016). *Communication abilities of children with ASD and ADHD. Production, comprehension, and cognitive mechanisms.*
152. Jelena Golubović (2016). *Mutual intelligibility in the Slavic language area.*
153. Nynke van der Schaaf (2016). *"Kijk eens wat ik kan!" Sociale praktijken in de interactie tussen kinderen van 4 tot 8 jaar in de buitenschoolse opvang.*
154. Simon Šuster (2016). *Empirical studies on word representations.*
155. Kilian Evang (2016). *Cross-lingual Semantic Parsing with Categorial Grammars.*
156. Miren Arantzeta Pérez (2017). *Sentence comprehension in monolingual and bilingual aphasia: Evidence from behavioral and eye-tracking methods.*
157. Sana-e-Zehra Haidry (2017). *Assessment of Dyslexia in the Urdu Language.*
158. Srđan Popov (2017). *Auditory and Visual ERP Correlates of Gender Agreement Processing in Dutch and Italian.*
159. Molood Sadat Safavi (2017). *The Competition of Memory and Expectation in Resolving Long-Distance Dependencies: Psycholinguistic Evidence from Persian Complex Predicates.*
160. Christopher Bergmann (2017). *Facets of native-likeness: First-language attrition among German emigrants to Anglophone North America.*
161. Stefanie Keulen (2017). *Foreign Accent Syndrome: A Neurolinguistic Analysis.*
162. Franz Manni (2017). *Linguistic Probes into Human History.*
163. Margreet Vogelzang (2017). *Reference and cognition: Experimental and computational cognitive modeling studies on reference processing in Dutch and Italian.*
164. Johannes Bjerva (2017). *One Model to Rule them all. Multitask and Multilingual Modelling for Lexical Analysis: Multitask and Multilingual Modelling for Lexical Analysis.*
165. Dieke Oele (2018). *Automated translation with interlingual word representations.*
166. Lucas M. Seuren (2018). *The Interactional Accomplishment of Action.*

167. Elisabeth Borleffs (2018). *Cracking the code - Towards understanding, diagnosing and remediating dyslexia in Standard Indonesian.*
168. Mirjam Günther-van der Meij (2018). *The impact of degree of bilingualism on L3 development: English language development in early and later bilinguals in the Frisian context.*
169. Ruth Koops van 't Jagt (2018). *Show, don't just tell: Photo stories to support people with limited health literacy.*
170. Bernat Bardagil-Mas (2018). *Case and agreement in Panará.*

GRODIL
Center for Language and Cognition Groningen (CLCG)
P.O. Box 716
9700 AS Groningen
The Netherlands